



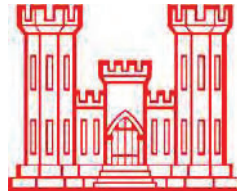
SOLICITATION: **W9127819B0001**

CONTRACT: **W9127819D0019**

**SPECIFICATIONS
FOR
INDEFINITE DELIVERY INDEFINITE QUANTITY (IDIQ)
CONTRACT FOR RENTAL OF HOPPER DREDGE WITH ATTENDANT
PLANT AND OPERATORS FOR MAINTENANCE DREDGING IN
ALABAMA, MISSISSIPPI, AND FLORIDA**

THIS IS A CIVIL WORKS PROGRAM AND IS NOT FUNDED BY THE
DEPARTMENT OF DEFENSE

“GOOD ENGINEERING RESULTS IN A BETTER ENVIRONMENT”



***U.S. ARMY ENGINEER DISTRICT, MOBILE
109 St. Joseph Street
Mobile, Alabama 36602***

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WAGE RATES

Current wage rates will be assigned for each individual task order.

SOLICITATION, OFFER AND AWARD (Construction, Alteration, or Repair)	1. SOLICITATION NO.	2. TYPE OF SOLICITATION	3. DATE ISSUED	PAGES OF PAGES
	W9127819B0001	<input checked="" type="checkbox"/> SEALED BID (IFB) <input type="checkbox"/> NEGOTIATED (RFP)	12 Feb 2019	1 OF 2

IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.

4. CONTRACT NO. W9127819D0019	5. REQUISITION/PURCHASE REQUEST NO. W31XNJ90875476	6. PROJECT NO.
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7. ISSUED BY CODE CT	8. ADDRESS OFFER TO SAME AS BLOCK 7 IF HAND CARRIED, DELIVER TO ROOM 1009
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U S ARMY ENGINEER DISTRICT, MOBILE
CONTRACTING DIVISION (CESAM-CT)
(109 ST. JOSEPH ST. 36602) P.O. BOX 2288
MOBILE, AL 36628-0001

9. FOR INFORMATION CALL :	A. NAME	B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS)
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SOLICITATION

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS (Title, identifying no., date):

Indefinite Delivery Indefinite Quantity (IDIQ) Single Award Task Order Contract (SATOC), Contract for Rental of Hopper Dredge With Attendant Plant and Operators for Maintenance Dredging in Alabama, Mississippi, Florida.

Designation of a Contracting Officer's Representative (COR) will be established per task order.

IDIQ Period of Performance will be fourteen (14) months.

The guaranteed minimum quantity of work which will be required under this contract and which will be initiated by one or more task orders will not be less than \$100,000.00 for the term of the contract.

11. The Contractor shall begin performance within * _____ calendar days and complete it within * _____ calendar days after receiving

☐ award, ☒ notice to proceed. This performance period is ☒ mandatory, ☐ negotiable. (See *Task Order _____.)

12A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS?
(If "YES," indicate within how many calendar days after award in Item 12B.)

☒ YES ☐ NO

12B. CALENDAR DAYS

10

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 1 _____ copies to perform the work required are due at the place specified in Item 8 by 02:00 PM (hour) local time 42- 22 March 2019 (date). If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee ☒ is, ☐ is not required.

C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.

D. Offers providing less than 120 _____ calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

14. NAME AND ADDRESS OF OFFEROR (Include ZIP Code)

The Dutra Group
2350 Kerner Boulevard, Suite 200
San Rafael, California 94901-5595

15. TELEPHONE NO. (Include area code)

415-258-6876

16. REMITTANCE ADDRESS (Include only if different than Item 14)

Fed ID: 94-2278920

Duns No.: 05 913 3509

CODE 3GSX7

FACILITY CODE

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within 120 calendar days after the date offers are due. (Insert any number equal to or greater than the minimum requirement)

AMOUNTS

SEE ATTACHED BIDDING SCHEDULE

18. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGMENT OF AMENDMENTS

(The offeror acknowledges receipt of amendments to the solicitation - give number and date of each)

AMENDMENT NO.	0001									
DATE	3/11/19									

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER

(Type or print)

The Dutra Group by:

Harry K. Stewart, Chief Operating Officer

20B. SIGNATURE



20C. OFFER DATE

March 22, 2019

AWARD (To be completed by Government)

21. ITEMS ACCEPTED:

CONTRACTOR'S ATTACHED BIDDING SCHEDULE

22. AMOUNT

NTE: \$10,000,000.00

23. ACCOUNTING AND APPROPRIATION DATA

96 NA X 2019 3123 000 0000 CCS: 111 K5 2019 08 2446 011670 96015 2520 57B9D2 NA 57B9D2

24. SUBMIT INVOICES TO ADDRESS SHOWN IN
(4 copies unless otherwise specified)

PER TASK ORDER

ITEM

25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO

☐ 10 U.S.C. 2304(c) () ☐ 41 U.S.C. 253(c) ()

26. ADMINISTERED BY

CODE

W91278

ENDIST MOBILE CONTRACTING DIVISION
109 SAINT JOSEPH STREET
MOBILE, AL 36602

27. PAYMENT WILL BE MADE BY

964145

USACE FINANCE CTR - DISPURRING OFFICER
5722 INTEGRITY DRIVE
MILLINGTON, TN 38054-5005

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

☐ 28. NEGOTIATED AGREEMENT (contractor is required to sign this document and return _____ copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications incorporated by reference in or attached to this contract.

☒ 29. AWARD (Contractor is not required to sign this document.) Your offer on this solicitation, is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.

30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN (Type or print)

31A. NAME OF CONTRACTING OFFICER (Type or print)

30B. SIGNATURE

30C. DATE

31B. UNITED STATES OF AMERICA

BY

LOGSDON.SARA
G.1393559868

Digitally signed by

LOGSDON.SARA G.1393559868

Date: 2019.04.02 15:35:49

-05'00'

Section 00 00 10

BIDDING SCHEDULE

CONTRACTOR NAME: _____

Item No.	Description	Estimated Quantity	Unit	Unit Price	Estimated Amount
1.	Mobilization and Demobilization Dredge and Attendant Plant	1	JOB	XXX	\$ 247,055 ⁰⁰
2.	Dredge Pay Time: 100% Pay Time (See chart in section 01 00 00)	3114	HR	\$1,750 ⁰⁰	\$ 5,449,500 ⁰⁰
3.	Mobilization and Demobilization Trawler	1	JOB	XXX	\$ 13,000 ⁰⁰
4.	Sea Turtle/Gulf Sturgeon Trawling	6.0	DAYS	5,000 ⁰⁰	\$ 30,000 ⁰⁰
				TOTAL BID	\$ 5,739,555 ⁰⁰

NOTES

1. Bidders must insert a price on all numbered items of the bidding schedule. Failure to do so will disqualify the bid.
2. All the extensions of the unit price shown will be subject to verification by the Government. In case of variation between the unit price and extension, the unit price will be considered to be the bid.
3. The number of hours/days indicated on the Bidding Schedule is approximate. The Contractor may be required to work either more or less than the number of hours/days specified.
4. For Bid Items No. 1 through No. 4 refer to Section 00 00 10 paragraph entitled BID EVALUATION.

BID EVALUATION

(1) It is the intent of the Government to secure a dredge, meeting the requirement set forth in the Statement of Work of the specifications. The Table in the paragraph entitled DREDGE AND ATTENDANT PLANT REQUIREMENTS indicates the estimated average output for dredges of various power based on average theoretical conditions under which this work is to be accomplished. Bids will be evaluated and award will be made on the basis of employment of the plant; which will result in the lowest overall total price, as described hereinafter, to the Government for the equipment. For the purpose of bidding and evaluating bids, it will be considered the dredge will work for the estimated amount of hours in the Table. This is not to be construed by the Contractor that the Government guarantees this number of hours will be worked.

(2) Bidders should insert the appropriate number of hours obtained from the Table found in Paragraph 15 in Section 01 00 00 into Bid Item No. 2. The number of hours listed in the table are identical to the "97% efficiency hours" found in Attachment 1 at the end of Section 01 00 00.

(3) The number of days for Bid Item No. 4 for the dredge bid is obtained by taking the "97% efficiency hours" (Attachment #1) and multiplying by 5% and dividing by 24 hours and round to the nearest whole number. Example using the Newport: $(3708 \times .05)/24 = 7.7$ insert 8 days in Bid Item No. 4. Maximum amount for this bid item is \$5,000.00 per day.

(4) Bids based on dredges smaller or larger than those listed in the Table will be considered non-responsive. Other dredges are considered inadequate for satisfactory performance of work required within the period of the contract.

(5) The Government will check the bidder's computation for accuracy and to insure that the bidder's computation was made in accordance with the above evaluation procedures. In case of variation between the bidder's computation procedures and those prescribed above, the Government will correct the bidder's computation and the bid will be evaluated by the corrected computation.

INFORMATION TO BE SUBMITTED WITH BID: Each bidder shall furnish the
information required below by filling in the blank spaces:

GENERAL DREDGE INFORMATION:

Dredge Name: Columbia
Fair Market Value of the Dredge: \$11,000,000.00
Minimum width of channel in which dredge can successfully operate and turn around
(ft): 320
Minimum depth of water in which dredge will operate with hoppers filled (ft): 20
Maximum draft of vessel (ft): 17
Loaded freeboard (ft): 06

Depth range at which dredge can dig, maximum 65 ft., minimum 20 ft.

Total length of dredge (ft): 320
Hopper capacity (cu yds): 4,387

DREDGING PUMPS AND PROPULSION:

Number of pumps one (1) Number of dragarms: one (1)
Pump suction 28 Discharge 24 (I.D. in inches)

Brake HP applied to pump impeller: 1,800

Brake HP applied to propeller: two (2) by 1,500

The dredge may be inspected at: Mobile, AL

ATTENDANT PLANT: Cape Anne

Crewboat size: 42 ft
Total HP: 400 HP
May be inspected at: Mobile, AL
Survey Boat size: 24 ft
Total HP: 200 HP
May be inspected at: Mobile, AL

DREDGE CREW

(A complete listing of positions is required below)

POSITION	NUMBER OF EMPLOYEES IN THIS POSITION
Captain	One (1)
Chief	One (1)
Mate	Two (2)
Assistant Engineer	Two (2)
Drag Tender	Two (2)
A.B.	Two (2)
QMED	Two (2)
Cook	One (1)
Boat Operator	Two (2)

SUBSISTENCE: The plant (~~X~~) will () will not have the facilities for furnishing the meals required by the "Accommodations and Meals for Inspectors" clause of the contract.

The rate to be charged for the above plant, complete with full operating personnel and in operating status on a 24-hour day, 7 days per week basis, will be set forth in the bid schedule.

DREDGE PLANT OPERATION: The number of shifts to be worked per day on a 24-hour basis, 7 days per week is Two (2).

Section 00 45 00
Representations and Certifications

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CLAUSES INCORPORATED BY FULL TEXT

52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)

(a) The offeror certifies that --

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to --

(i) Those prices;

(ii) The intention to submit an offer; or

(iii) The methods or factors used to calculate the prices offered.

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory --

(1) Is the person in the offeror's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; or

(2)

(i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision Harry K. Stewart, COO [insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization];

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) of this provision have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision.

(c) If the offeror deletes or modifies subparagraph (a)(2) of this provision, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

(End of Provision)

52.204-5 WOMEN-OWNED BUSINESS (OTHER THAN SMALL BUSINESS) (OCT 2014)

(a) Definition. "Women-owned business concern," as used in this provision, means a concern that is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Representation. [Complete only if the offeror is a women-owned business concern and has not represented itself as a small business concern in paragraph (c)(1) of FAR 52.219-1, Small Business Program Representation, of this solicitation.] The offeror represents that it ☐ is a women-owned business concern.

(End of Provision)

52.204-8 ANNUAL REPRESENTATIONS AND CERTIFICATIONS (JAN 2018)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 237990.

(2) The small business size standard is \$27,500,000.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b)(1) If the provision at 52.204-7, System for Award Management, is included in this solicitation, paragraph (d) of this provision applies.

(2) If the provision at 52.204-7 is not included in this solicitation, and the offeror is currently registered in System for Award Management (SAM), and has completed the Representations and Certifications section of SAM electronically, the offeror may choose to use paragraph (d) of this provision instead of completing the corresponding individual representations and certifications in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:

(☒) Paragraph (d) applies.

() Paragraph (d) does not apply and the offeror has completed the individual representations and certifications in the solicitation.

(c) (1) The following representations or certifications in SAM are applicable to this solicitation as indicated:

(i) 52.203-2, Certificate of Independent Price Determination. This provision applies to solicitations when a firm-fixed-price contract or fixed-price contract with economic price adjustment is contemplated, unless—

(A) The acquisition is to be made under the simplified acquisition procedures in Part 13;

(B) The solicitation is a request for technical proposals under two-step sealed bidding procedures; or

(C) The solicitation is for utility services for which rates are set by law or regulation.

(ii) 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions. This provision applies to solicitations expected to exceed \$150,000.

(iii) 52.203-18, Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements or Statements--Representation. This provision applies to all solicitations.

(iv) 52.204-3, Taxpayer Identification. This provision applies to solicitations that do not include the provision at 52.204-7, System for Award Management.

(v) 52.204-5, Women-Owned Business (Other Than Small Business). This provision applies to solicitations that—

(A) Are not set aside for small business concerns;

(B) Exceed the simplified acquisition threshold; and

(C) Are for contracts that will be performed in the United States or its outlying areas.

(vi) 52.209-2; Prohibition on Contracting with Inverted Domestic Corporations--Representation.

(vii) 52.209-5; Certification Regarding Responsibility Matters. This provision applies to solicitations where the contract value is expected to exceed the simplified acquisition threshold.

(viii) 52.209-11, Representation by Corporations Regarding Delinquent Tax Liability or a Felony Conviction under any Federal Law. This provision applies to all solicitations.

(ix) 52.214-14, Place of Performance--Sealed Bidding. This provision applies to invitations for bids except those in which the place of performance is specified by the Government.

(x) 52.215-6, Place of Performance. This provision applies to solicitations unless the place of performance is specified by the Government.

(xi) 52.219-1, Small Business Program Representations (Basic & Alternate I). This provision applies to solicitations when the contract will be performed in the United States or its outlying areas.

(A) The basic provision applies when the solicitations are issued by other than DoD, NASA, and the Coast Guard.

(B) The provision with its Alternate I applies to solicitations issued by DoD, NASA, or the Coast Guard.

(xii) 52.219-2, Equal Low Bids. This provision applies to solicitations when contracting by sealed bidding and the contract will be performed in the United States or its outlying areas.

(xiii) 52.222-22, Previous Contracts and Compliance Reports. This provision applies to solicitations that include the clause at 52.222-26, Equal Opportunity.

(xiv) 52.222-25, Affirmative Action Compliance. This provision applies to solicitations, other than those for construction, when the solicitation includes the clause at 52.222-26, Equal Opportunity.

(xv) 52.222-38, Compliance with Veterans' Employment Reporting Requirements. This provision applies to solicitations when it is anticipated the contract award will exceed the simplified acquisition threshold and the contract is not for acquisition of commercial items.

(xvi) 52.223-1, Biobased Product Certification. This provision applies to solicitations that require the delivery or specify the use of USDA-designated items; or include the clause at 52.223-2, Affirmative Procurement of Biobased Products Under Service and Construction Contracts.

(xvii) 52.223-4, Recovered Material Certification. This provision applies to solicitations that are for, or specify the use of, EPA- designated items.

(xviii) 52.223-22, Public Disclosure of Greenhouse Gas Emissions and Reduction Goals--Representation. This provision applies to solicitations that include the clause at 52.204-7.)

(xix) 52.225-2, Buy American Certificate. This provision applies to solicitations containing the clause at 52.225-1.

(xx) 52.225-4, Buy American--Free Trade Agreements--Israeli Trade Act Certificate. (Basic, Alternates I, II, and III.) This provision applies to solicitations containing the clause at 52.225- 3.

- (A) If the acquisition value is less than \$25,000, the basic provision applies.
- (B) If the acquisition value is \$25,000 or more but is less than \$50,000, the provision with its Alternate I applies.
- (C) If the acquisition value is \$50,000 or more but is less than \$80,317, the provision with its Alternate II applies.
- (D) If the acquisition value is \$80,317 or more but is less than \$100,000, the provision with its Alternate III applies.
- (xxi) 52.225-6, Trade Agreements Certificate. This provision applies to solicitations containing the clause at 52.225-5.
- (xxii) 52.225-20, Prohibition on Conducting Restricted Business Operations in Sudan-- Certification. This provision applies to all solicitations.
- (xxiii) 52.225-25, Prohibition on Contracting with Entities Engaging in Certain Activities or Transactions Relating to Iran—Representation and Certification. This provision applies to all solicitations.
- (xxiv) 52.226-2, Historically Black College or University and Minority Institution Representation. This provision applies to solicitations for research, studies, supplies, or services of the type normally acquired from higher educational institutions.
- (2) The following representations or certifications are applicable as indicated by the Contracting Officer:
- [Contracting Officer check as appropriate.]
- (i) 52.204-17, Ownership or Control of Offeror.
- (ii) 52.204-20, Predecessor of Offeror.
- (iii) 52.222-18, Certification Regarding Knowledge of Child Labor for Listed End Products.
- (iv) 52.222-48, Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Certification.
- (v) 52.222-52 Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services--Certification.
- (vi) 52.223-9, with its Alternate I, Estimate of Percentage of Recovered Material Content for EPA-Designated Products (Alternate I only).

(vii) 52.227-6, Royalty Information.

(A) Basic.

(B) Alternate I.

(viii) 52.227-15, Representation of Limited Rights Data and Restricted Computer Software.

(d) The offeror has completed the annual representations and certifications electronically via the SAM website accessed through <https://www.acquisition.gov>. After reviewing the SAM database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically that apply to this solicitation as indicated in paragraph (c) of this provision have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [offeror to insert changes, identifying change by clause number, title, date]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR Clause	Title	Date	Change
"PLEASE SEE ATTACHED DOCUMENT"			

Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on SAM.

(End of provision)

52.204-16 COMMERCIAL AND GOVERNMENT ENTITY CODE REPORTING (JUL 2016)

(a) Definition. As used in this provision--
Commercial and Government Entity (CAGE) code means—

- (1) An identifier assigned to entities located in the United States or its outlying areas by the Defense Logistics Agency (DLA) Commercial and Government Entity (CAGE) Branch to identify a commercial or government entity; or
- (2) An identifier assigned by a member of the North Atlantic Treaty Organization (NATO) or by the NATO Support and Procurement Agency (NSPA) to entities located outside the United States and its outlying areas that the DLA Commercial and Government Entity (CAGE) Branch records and maintains in the CAGE master file. This type of code is known as a NATO CAGE (NCAGE) code.

(b) The Offeror shall enter its CAGE code in its offer with its name and address or otherwise include it prominently in its proposal. The CAGE code entered must be for that name and address. Enter ``CAGE" before the number. The CAGE code is required prior to award.

(c) CAGE codes may be obtained via--

(1) Registration in the System for Award Management (SAM) at www.sam.gov. If the Offeror is located in the United States or its outlying areas and does not already have a CAGE code assigned, the DLA Commercial and Government Entity (CAGE) Branch will assign a CAGE code as a part of the SAM registration process. SAM registrants located outside the United States and its outlying areas shall obtain a NCAGE code prior to registration in SAM (see paragraph (c)(3) of this provision).

(2) The DLA Commercial and Government Entity (CAGE) Branch. If registration in SAM is not required for the subject procurement, and the offeror does not otherwise register in SAM, an offeror located in the United States or its outlying areas may request that a CAGE code be assigned by submitting a request at <https://cage.dla.mil>.

(3) The appropriate country codification bureau. Entities located outside the United States and its outlying areas may obtain an NCAGE code by contacting the Codification Bureau in the foreign entity's country if that country is a member of NATO or a sponsored nation. NCAGE codes may be obtained from the NSPA at <https://eportal.nspa.nato.int/AC135Public/scage/CageList.aspx> if the foreign entity's country is not a member of NATO or a sponsored nation. Points of contact for codification bureaus, as well as additional information on obtaining NCAGE codes, are available at <http://www.nato.int/structur/AC/135/main/links/contacts.htm>.

(d) Additional guidance for establishing and maintaining CAGE codes is available at <https://cage.dla.mil>.

(e) When a CAGE Code is required for the immediate owner and/or the highest-level owner by 52.204-17 or 52.212-3(p), the Offeror shall obtain the respective CAGE Code from that entity to supply the CAGE Code to the Government.

(f) Do not delay submission of the offer pending receipt of a CAGE code.

(End of Provision)

52.204-17 OWNERSHIP OR CONTROL OF OFFEROR (JULY 2016)

(a) Definitions. As used in this provision—

“Commercial and Government Entity (CAGE) code” means--

(1) An identifier assigned to entities located in the United States or its outlying areas by the Defense Logistics Agency (DLA) Commercial and Government Entity (CAGE) Branch to identify a commercial or government entity, or

(2) An identifier assigned by a member of the North Atlantic Treaty Organization (NATO) or by the NATO Support and Procurement Agency (NSPA) to entities located outside the United States and its outlying areas that the DLA Commercial and Government Entity (CAGE) Branch records and maintains the CAGE master file. This type of code is known as a NATO CAGE (NCAGE) code.

“Highest-level owner” means the entity that owns or controls an immediate owner of the offeror, or that owns or controls one or more entities that control an immediate owner of the offeror. No entity owns or exercises control of the highest level owner.

“Immediate owner” means an entity, other than the offeror, that has direct control of the offeror. Indicators of control include, but are not limited to one or more of the following: Ownership or interlocking management, identity of interests among family members, shared facilities and equipment, and the common use of employees.

(b) The Offeror represents that it ☐ has or ☒ does not have an immediate owner. If the Offeror has more than one immediate owner (such as a joint venture), then the Offeror shall respond to paragraph (c) and if applicable, paragraph (d) of this provision for each participant in the joint venture.

(c) If the Offeror indicates “has” in paragraph (b) of this provision, enter the following information:

Immediate owner CAGE code: _____

Immediate owner legal name: _____ (Do not use a
“doing business as” name)

Is the immediate owner owned or controlled by another entity?:

☐ Yes or ☐ No.

(d) If the Offeror indicates “yes” in paragraph (c) of this provision, indicating that the immediate owner is owned or controlled by another entity, then enter the following information:

Highest level owner CAGE code: _____

Highest level owner legal name: _____ (Do not use
a “doing business as” name)

(End of provision)

52.204-20 PREDECESSOR OF OFFEROR (JULY 2016)

(a) Definitions. As used in this provision--

“Commercial and Government Entity (CAGE) code” means--

(1) An identifier assigned to entities located in the United States and its outlying areas by the Defense Logistics Agency (DLA) Contractor and Government Entity (CAGE) Branch to identify a commercial or government entity, or

(2) An identifier assigned by a member of the North Atlantic Treaty Organization (NATO) or by the NATO Support and Procurement Agency (NSPA) to entities located outside the United States and its outlying areas that DLA Commercial and Government Entity (CAGE) Branch records and maintains in the CAGE master file. This type of code is known as a NATO CAGE (NCAGE) code.

“Predecessor” means an entity that is replaced by a successor and includes any predecessors of the predecessor.

“Successor” means an entity that has replaced a predecessor by acquiring the assets and carrying out the affairs of the predecessor under a new name (often through acquisition or merger). The term “successor” does not include new offices/divisions of the same company that only changes its name. The extent of the responsibility of the successor for the liabilities of the predecessor may vary, depending on State law and specific circumstances.

(b) The Offeror represents that it ☐ is or ☒ is not a successor to a predecessor that held a Federal contract or grant within the last three years.

(c) If the Offeror has indicated “is” in paragraph (b) of this provision, enter the following information for all predecessors that held a Federal contract or grant within the last three years (if more than one predecessor, list in reverse chronological order):

Predecessor CAGE code: _____ (or mark “Unknown”).

Predecessor legal name: _____.
(Do not use a “doing business as” name).

(End of provision)

52.209-2 PROHIBITION ON CONTRACTING WITH INVERTED DOMESTIC CORPORATIONS--REPRESENTATION (NOV 2015)

(a) Definitions. “Inverted domestic corporation” and “subsidiary” have the meaning given in the clause of this contract entitled Prohibition on Contracting with Inverted Domestic Corporations (52.209-10).

(b) Government agencies are not permitted to use appropriated (or otherwise made available) funds for contracts with either an inverted domestic corporation, or a subsidiary of an inverted domestic corporation, unless the exception at 9.108-2(b) applies or the requirement is waived in accordance with the procedures at 9.108-4.

(c) Representation. The offeror represents that—

(1) It ☐ is, ☒ is not an inverted domestic corporation; and

(2) It ☐ is, ☒ is not a subsidiary of an inverted domestic corporation.

(End of provision)

52.209-7 INFORMATION REGARDING RESPONSIBILITY MATTERS (JULY 2013)

(a) Definitions. As used in this provision--

Administrative proceeding means a non-judicial process that is adjudicatory in nature in order to make a determination of fault or liability (e.g., Securities and Exchange Commission Administrative Proceedings, Civilian Board of Contract Appeals Proceedings, and Armed Services Board of Contract Appeals Proceedings). This includes administrative proceedings at the Federal and State level but only in connection with performance of a Federal contract or grant. It does not include agency actions such as contract audits, site visits, corrective plans, or inspection of deliverables.

Federal contracts and grants with total value greater than \$10,000,000 means--

(1) The total value of all current, active contracts and grants, including all priced options; and

(2) The total value of all current, active orders including all priced options under indefinite-delivery, indefinite-quantity, 8(a), or requirements contracts (including task and delivery and multiple-award Schedules).

Principal means an officer, director, owner, partner, or a person having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a division or business segment; and similar positions).

(b) The offeror ☒ has ☐ does not have current active Federal contracts and grants with total value greater than \$10,000,000.

(c) If the offeror checked "has" in paragraph (b) of this provision, the offeror represents, by submission of this offer, that the information it has entered in the Federal Awardee Performance and Integrity Information System (FAPIS) is current, accurate, and complete as of the date of submission of this offer with regard to the following information:

(1) Whether the offeror, and/or any of its principals, has or has not, within the last five years, in connection with the award to or performance by the offeror of a Federal contract or grant, been the subject of a proceeding, at the Federal or State level that resulted in any of the following dispositions:

(i) In a criminal proceeding, a conviction.

(ii) In a civil proceeding, a finding of fault and liability that results in the payment of a monetary fine, penalty, reimbursement, restitution, or damages of \$5,000 or more.

(iii) In an administrative proceeding, a finding of fault and liability that results in--

(A) The payment of a monetary fine or penalty of \$5,000 or more; or

(B) The payment of a reimbursement, restitution, or damages in excess of \$100,000.

(iv) In a criminal, civil, or administrative proceeding, a disposition of the matter by consent or compromise with an acknowledgment of fault by the Contractor if the proceeding could have led to any of the outcomes specified in paragraphs (c)(1)(i), (c)(1)(ii), or (c)(1)(iii) of this provision.

(2) If the offeror has been involved in the last five years in any of the occurrences listed in (c)(1) of this provision, whether the offeror has provided the requested information with regard to each occurrence.

(d) The offeror shall post the information in paragraphs (c)(1)(i) through (c)(1)(iv) of this provision in FAPIIS as required through maintaining an active registration in the System for Award Management database via <https://www.acquisition.gov> (see 52.204-7).

(End of provision)

52.209-13 VIOLATION OF ARMS CONTROL TREATIES OR AGREEMENTS— CERTIFICATION (JUN 2018)

(a) This provision does not apply to acquisitions below the simplified acquisition threshold or to acquisitions of commercial items as defined at FAR 2.101.

(b) Certification. [Offeror shall check either (1) or (2).]

 X (1) The Offeror certifies that—

(i) It does not engage and has not engaged in any activity that contributed to or was a significant factor in the President's or Secretary of State's determination that a foreign country is in violation of its obligations undertaken in any arms control, nonproliferation, or disarmament agreement to which the United States is a party, or is not adhering to its arms control, nonproliferation, or disarmament commitments in which the United States is a participating state. The determinations

are described in the most recent unclassified annual report provided to Congress pursuant to section 403 of the Arms Control and Disarmament Act (22 U.S.C. 2593a). The report is available via the internet at <https://www.state.gov/t/avc/rls/rpt/>; and

(ii) No entity owned or controlled by the Offeror has engaged in any activity that contributed to or was a significant factor in the President's or Secretary of State's determination that a foreign country is in violation of its obligations undertaken in any arms control, nonproliferation, or disarmament agreement to which the United States is a party, or is not adhering to its arms control, nonproliferation, or disarmament commitments in which the United States is a participating state. The determinations are described in the most recent unclassified annual report provided to Congress pursuant to section 403 of the Arms Control and Disarmament Act (22 U.S.C. 2593a). The report is available via the internet at <https://www.state.gov/t/avc/rls/rpt/>; or

_____ (2) The Offeror is providing separate information with its offer in accordance with paragraph (d)(2) of this provision.

(c) Procedures for reviewing the annual unclassified report (see paragraph (b)(1) of this provision). For clarity, references to the report in this section refer to the entirety of the annual unclassified report, including any separate reports that are incorporated by reference into the annual unclassified report.

(1) Check the table of contents of the annual unclassified report and the country section headings of the reports incorporated by reference to identify the foreign countries listed there. Determine whether the Offeror or any person owned or controlled by the Offeror may have engaged in any activity related to one or more of such foreign countries.

(2) If there may have been such activity, review all findings in the report associated with those foreign countries to determine whether or not each such foreign country was determined to be in violation of its obligations undertaken in an arms control, nonproliferation, or disarmament agreement to which the United States is a party, or to be not adhering to its arms control, nonproliferation, or disarmament commitments in which the United States is a participating state. For clarity, in the annual report an explicit certification of non-compliance is equivalent to a determination of violation. However, the following statements in the annual report are not equivalent to a determination of violation:

(i) An inability to certify compliance.

(ii) An inability to conclude compliance.

(iii) A statement about compliance concerns.

(3) If so, determine whether the Offeror or any person owned or controlled by the Offeror has engaged in any activity that contributed to or is a significant factor in the determination in the report that one or more of these foreign countries is in violation of its obligations undertaken in an arms control, nonproliferation, or disarmament agreement to which the United States is a party, or is not adhering to its arms control, nonproliferation, or disarmament commitments in

which the United States is a participating state. Review the narrative for any such findings reflecting a determination of violation or non-adherence related to those foreign countries in the report, including the finding itself, and to the extent necessary, the conduct giving rise to the compliance or adherence concerns, the analysis of compliance or adherence concerns, and efforts to resolve compliance or adherence concerns.

(4) The Offeror may submit any questions with regard to this report by email to NDAA1290Cert@state.gov. To the extent feasible, the Department of State will respond to such email inquiries within 3 business days.

(d) Do not submit an offer unless—

(1) A certification is provided in paragraph (b)(1) of this provision and submitted with the offer;
or

(2) In accordance with paragraph (b)(2) of this provision, the Offeror provides with its offer information that the President of the United States has—

(i) Waived application under U.S.C. 2593e(d) or (e); or

(ii) Determined under 22 U.S.C. 2593e(g)(2) that the entity has ceased all activities for which measures were imposed under 22 U.S.C.2593e(b).

(e) Remedies. The certification in paragraph (b)(1) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly submitted a false certification, in addition to other remedies available to the Government, such as suspension or debarment, the Contracting Officer may terminate any contract resulting from the false certification.

(End of provision)

52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (OCT 2014) ALTERNATE I (SEP 2015)

(a) Definitions. As used in this provision--

“Economically disadvantaged women-owned small business (EDWOSB) concern” means a small business concern that is at least 51 percent directly and unconditionally owned by, and the management and daily business operations of which are controlled by, one or more women who are citizens of the United States and who are economically disadvantaged in accordance with 13 CFR part 127. It automatically qualifies as a women-owned small business concern eligible under the WOSB Program.

“Service-disabled veteran-owned small business concern”--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a service-disabled veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) "Service-disabled veteran" means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern" means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (b) of this provision.

"Small disadvantaged business concern, consistent with 13 CFR 124.1002," means a small business concern under the size standard applicable to the acquisition, that--

(1) Is at least 51 percent unconditionally and directly owned (as defined at 13 CFR 124.105) by--

(i) One or more socially disadvantaged (as defined at 13 CFR 124.103) and economically disadvantaged (as defined at 13 CFR 124.104) individuals who are citizens of the United States, and

(ii) Each individual claiming economic disadvantage has a net worth not exceeding \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(2) The management and daily business operations of which are controlled (as defined at 13 CFR 124.106) by individuals who meet the criteria in paragraphs (1)(i) and (ii) of this definition.

"Veteran-owned small business concern" means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern" means a small business concern--

(1) That is at least 51 percent owned by one or more women; or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

“Women-owned small business (WOSB) concern eligible under the WOSB Program (in accordance with 13 CFR part 127),” means a small business concern that is at least 51 percent directly and unconditionally owned by, and the management and daily business operations of which are controlled by, one or more women who are citizens of the United States.

(b)

(1) The North American Industry Classification System (NAICS) code for this acquisition is 237990.

(2) The small business size standard is \$27,500,000.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(c) Representations.

(1) The offeror represents as part of its offer that it ☐ is, ☒ is not a small business concern.

(2) [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents that it ☐ is, ☐ is not, a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents as part of its offer that it ☐ is, ☐ is not a women-owned small business concern.

(4) Women-owned small business (WOSB) concern eligible under the WOSB Program.
[Complete only if the offeror represented itself as a women-owned small business concern in paragraph (c)(3) of this provision.] The offeror represents as part of its offer that—

(i) It ☐ is, ☐ is not a WOSB concern eligible under the WOSB Program, has provided all the required documents to the WOSB Repository, and no change in circumstances or adverse decisions have been issued that affects its eligibility; and

(ii) It ☐ is, ☐ is not a joint venture that complies with the requirements of 13 CFR part 127, and the representation in paragraph (c)(4)(i) of this provision is accurate for each WOSB concern eligible under the WOSB Program participating in the joint venture. [The offeror shall enter the name or names of the WOSB concern eligible under the WOSB Program and other small businesses that are participating in the joint venture: _____.] Each WOSB concern eligible under the WOSB Program participating in the joint venture shall submit a separate signed copy of the WOSB representation.

(5) Economically disadvantaged women-owned small business (EDWOSB) concern. [Complete only if the offeror represented itself as a women-owned small business concern eligible under the WOSB Program in (c)(4) of this provision.] The offeror represents as part of its offer that--

(i) It ☐ is, ☐ is not an EDWOSB concern eligible under the WOSB Program, has provided all the required documents to the WOSB Repository, and no change in circumstances or adverse decisions have been issued that affects its eligibility; and

(ii) It ☐ is, ☐ is not a joint venture that complies with the requirements of 13 CFR part 127, and the representation in paragraph (c)(5)(i) of this provision is accurate for each EDWOSB concern participating in the joint venture. [The offeror shall enter the name or names of the EDWOSB concern and other small businesses that are participating in the joint venture: _____.] Each EDWOSB concern participating in the joint venture shall submit a separate signed copy of the EDWOSB representation.

(6) [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents as part of its offer that it ☐ is, ☐ is not a veteran-owned small business concern.

(7) [Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (c)(6) of this provision.] The offeror represents as part of its offer that it ☐ is, ☐ is not a service-disabled veteran-owned small business concern.

(8) [Complete only if the offeror represented itself as a small business concern in paragraph (c)(1) of this provision.] The offeror represents, as part of its offer, that --

(i) It ☐ is, ☐ is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material changes in ownership and control, principal office, or HUBZone employee percentage have occurred since it was certified in accordance with 13 CFR part 126; and

(ii) It ☐ is, ☐ is not a HUBZone joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (c)(8)(i) of this provision is accurate for each HUBZone small business concern participating in the HUBZone joint venture. [The offeror shall enter the names of each of the HUBZone small business concerns participating in the HUBZone joint venture: _____.] Each HUBZone small business concern participating in the HUBZone joint venture shall submit a separate signed copy of the HUBZone representation.

(9) [Complete if offeror represented itself as disadvantaged in paragraph (c)(2) of this provision.] The offeror shall check the category in which its ownership falls:

___ Black American.

___ Hispanic American.

___ Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).

___ Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea), Vietnam, Korea, The Philippines, Republic of Palau, Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).

___ Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).

___ Individual/concern, other than one of the preceding.

(d) Notice.

(1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a business concern that is small, HUBZone small, small disadvantaged, service-disabled veteran-owned small, economically disadvantaged women-owned small, or women-owned small eligible under the WOSB Program in order to obtain a contract to be awarded under the preference programs established pursuant to section 8, 9, 15, 31, and 36 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall --

(i) Be punished by imposition of fine, imprisonment, or both;

(ii) Be subject to administrative remedies, including suspension and debarment; and

(iii) Be ineligible for participation in programs conducted under the authority of the Act.

(End of Provision)

52.223-22 PUBLIC DISCLOSURE OF GREENHOUSE GAS EMISSIONS AND REDUCTION GOALS--REPRESENTATION (DEC 2016)

(a) This representation shall be completed if the Offeror received \$7.5 million or more in Federal contract awards in the prior Federal fiscal year. The representation is optional if the Offeror received less than \$7.5 million in Federal contract awards in the prior Federal fiscal year.

(b) Representation. [Offeror is to check applicable blocks in paragraphs (b)(1) and (2).]

(1) The Offeror (itself or through its immediate owner or highest-level owner) [] does, ☒ does not publicly disclose greenhouse gas emissions, i.e., make available on a publicly accessible Web site the results of a greenhouse gas inventory, performed in accordance with an accounting standard with publicly available and consistently applied criteria, such as the Greenhouse Gas Protocol Corporate Standard.

(2) The Offeror (itself or through its immediate owner or highest-level owner) [] does, ☒ does not publicly disclose a quantitative greenhouse gas emissions reduction goal, i.e., make available on a publicly available Web site a target to reduce absolute emissions or emissions intensity by a specific quantity or percentage.

(3) A publicly accessible Web site includes the Offeror's own Web site or a recognized, third-party greenhouse gas emissions reporting program.

(c) If the Offeror checked "does" in paragraphs (b)(1) or (b)(2) of this provision, respectively, the Offeror shall provide the publicly accessible Web site(s) where greenhouse gas emissions and/or reduction goals are reported: _____.

(End of provision)

52.225-25 PROHIBITION ON CONTRACTING WITH ENTITIES ENGAGING IN
CERTAIN ACTIVITIES OR TRANSACTIONS RELATING TO IRAN—REPRESENTATION
AND CERTIFICATION (OCT 2015)

(a) Definitions. As used in this provision--

Person--

(1) Means--

(i) A natural person;

(ii) A corporation, business association, partnership, society, trust, financial institution, insurer, underwriter, guarantor, and any other business organization, any other nongovernmental entity, organization, or group, and any governmental entity operating as a business enterprise; and

(iii) Any successor to any entity described in paragraph (1)(ii) of this definition; and

(2) Does not include a government or governmental entity that is not operating as a business enterprise.

Sensitive technology—

(1) Means hardware, software, telecommunications equipment, or any other technology that is to be used specifically—

(i) To restrict the free flow of unbiased information in Iran; or

(ii) To disrupt, monitor, or otherwise restrict speech of the people of Iran; and

(2) Does not include information or informational materials the export of which the President does not have the authority to regulate or prohibit pursuant to section 203(b)(3) of the International Emergency Economic Powers Act (50 U.S.C. 1702(b)(3)).

(b) The offeror shall email questions concerning sensitive technology to the Department of State at CISADA106@state.gov.

(c) Except as provided in paragraph (d) of this provision or if a waiver has been granted in accordance with 25.703-4, by submission of its offer, the offeror--

(1) Represents, to the best of its knowledge and belief, that the offeror does not export any sensitive technology to the government of Iran or any entities or individuals owned or controlled by, or acting on behalf or at the direction of, the government of Iran;

(2) Certifies that the offeror, or any person owned or controlled by the offeror, does not engage in any activities for which sanctions may be imposed under section 5 of the Iran Sanctions Act. These sanctioned activities are in the areas of development of the petroleum resources of Iran, production of refined petroleum products in Iran, sale and provision of refined petroleum products to Iran, and contributing to Iran's ability to acquire or develop certain weapons or technologies; and

(3) Certifies that the offeror, and any person owned or controlled by the offeror, does not knowingly engage in any transaction that exceeds \$3,500 with Iran's Revolutionary Guard Corps or any of its officials, agents, or affiliates, the property and interests in property of which are blocked pursuant to the International Emergency Economic Powers Act (50 U.S.C. 1701 et seq.) (see OFAC's Specially Designated Nationals and Blocked Persons List at <http://www.treasury.gov/ofac/downloads/t11sdn.pdf>).

(d) Exception for trade agreements. The representation requirement of paragraph (c)(1) and the certification requirements of paragraphs (c)(2) and (c)(3) of this provision do not apply if--

(1) This solicitation includes a trade agreements notice or certification (e.g., 52.225-4, 52.225-6, 52.225-12, 52.225-24, or comparable agency provision); and

(2) The offeror has certified that all the offered products to be supplied are designated country end products or designated country construction material.

(End of provision)

252.203-7005 REPRESENTATION RELATING TO COMPENSATION OF FORMER DOD
OFFICIALS (NOV 2011)

(a) Definition. Covered DoD official is defined in the clause at 252.203-7000, Requirements
Relating to Compensation of Former DoD Officials.

(b) By submission of this offer, the offeror represents, to the best of its knowledge and belief,
that all covered DoD officials employed by or otherwise receiving compensation from the
offeror, and who are expected to undertake activities on behalf of the offeror for any resulting
contract, are presently in compliance with all post-employment restrictions covered by 18 U.S.C.
207, 41 U.S.C. 2101-2107, and 5 CFR parts 2637 and 2641, including Federal Acquisition
Regulation 3.104-2.

(End of provision)

252.204-7007 ALTERNATE A, ANNUAL REPRESENTATIONS AND CERTIFICATIONS
(JAN 2015)

Substitute the following paragraphs (d) and (e) for paragraph (d) of the provision at FAR 52.204-
8:

(d)(1) The following representations or certifications in the System for Award Management
(SAM) database are applicable to this solicitation as indicated:

(i) 252.209-7003, Reserve Officer Training Corps and Military Recruiting on Campus--
Representation. Applies to all solicitations with institutions of higher education.

(ii) 252.216-7008, Economic Price Adjustment--Wage Rates or Material Prices Controlled by a
Foreign Government. Applies to solicitations for fixed-price supply and service contracts when
the contract is to be performed wholly or in part in a foreign country, and a foreign government
controls wage rates or material prices and may during contract performance impose a mandatory
change in wages or prices of materials.

(iii) 252.222-7007, Representation Regarding Combating Trafficking in Persons, as prescribed in
222.1771. Applies to solicitations with a value expected to exceed the simplified acquisition
threshold.

(iv) 252.225-7042, Authorization to Perform. Applies to all solicitations when performance will
be wholly or in part in a foreign country.

(v) 252.225-7049, Prohibition on Acquisition of Commercial Satellite Services from Certain
Foreign Entities--Representations. Applies to solicitations for the acquisition of commercial
satellite services.

(vi) 252.225-7050, Disclosure of Ownership or Control by the Government of a Country that is a State Sponsor of Terrorism. Applies to all solicitations expected to result in contracts of \$150,000 or more.

(vii) 252.229-7012, Tax Exemptions (Italy)--Representation. Applies to solicitations when contract performance will be in Italy.

(viii) 252.229-7013, Tax Exemptions (Spain)--Representation. Applies to solicitations when contract performance will be in Spain.

(ix) 252.247-7022, Representation of Extent of Transportation by Sea. Applies to all solicitations except those for direct purchase of ocean transportation services or those with an anticipated value at or below the simplified acquisition threshold.

(2) The following representations or certifications in SAM are applicable to this solicitation as indicated by the Contracting Officer: [Contracting Officer check as appropriate.]

____ (i) 252.209-7002, Disclosure of Ownership or Control by a Foreign Government.

____ (ii) 252.225-7000, Buy American--Balance of Payments Program Certificate.

____ (iii) 252.225-7020, Trade Agreements Certificate.

____ Use with Alternate I.

____ (iv) 252.225-7031, Secondary Arab Boycott of Israel.

____ (v) 252.225-7035, Buy American--Free Trade Agreements--Balance of Payments Program Certificate.

____ Use with Alternate I.

____ Use with Alternate II.

____ Use with Alternate III.

____ Use with Alternate IV.

____ Use with Alternate V.

(e) The offeror has completed the annual representations and certifications electronically via the SAM Web site at <https://www.acquisition.gov/>. After reviewing the SAM database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically that apply to this solicitation as indicated in FAR 52.204-8(c) and paragraph (d) of this provision have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size

standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer, and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below ____ [offeror to insert changes, identifying change by provision number, title, date]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR/DFARS Clause #	Title	Date	Change
<i>"PLEASE SEE ATTACHED DOCUMENT"</i>			

Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications located in the SAM database.

(End of provision)




FAR 52.204-8 (d): The offeror has completed the annual representations and certifications electronically via the SAM website accessed through <https://www.acquisition.gov>. After reviewing the SAM database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically that apply to this solicitation as indicated in paragraph (c) of this provision have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [offeror to insert changes, identifying change by clause number, title, date]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR CLAUSE #	TITLE	DATE	CHANGE
52.219-1(a) Representation	Small Business Program Representations (Alternate I), (b) (1)	4/16/2013-present	As follows
<u>From:</u> The offeror represents and certifies as part of its offer that it [X] is, [] is not a small business concern and that [] all, [] not all end items to be furnished will be manufactured or produced by a small business concern in the United States, its territories or possessions, Puerto Rico or the Trust Territory of the Pacific Islands.			
<u>To:</u> The offeror represents and certifies as part of its offer that it [] is, [X] is not a small business concern and that [] all, [] not all end items to be furnished will be manufactured or produced by a small business concern in the United States, its territories or possessions, Puerto Rico or the Trust Territory of the Pacific Islands.			

Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on SAM.gov.

(End of provision)

The Dutra Group does not claim to be a small business and has repeatedly contacted SAM personnel to correct this mistaken representation, which we have been told was caused during the data migration from ORCA/CCR to SAM. Despite our repeated efforts, SAM personnel have not yet been able to correct the underlying problem preventing this modification.


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CLAUSES INCORPORATED BY FULL TEXT

52.202-1 DEFINITIONS (NOV 2013)

When a solicitation provision or contract clause uses a word or term that is defined in the Federal Acquisition Regulation (FAR), the word or term has the same meaning as the definition in FAR 2.101 in effect at the time the solicitation was issued, unless--

- (a) The solicitation, or amended solicitation, provides a different definition;
- (b) The contracting parties agree to a different definition;
- (c) The part, subpart, or section of the FAR where the provision or clause is prescribed provides a different meaning; or
- (d) The word or term is defined in FAR Part 31, for use in the cost principles and procedures.

(End of clause)

52.203-3 GRATUITIES (APR 1984)

(a) The right of the Contractor to proceed may be terminated by written notice if, after notice and hearing, the agency head or a designee determines that the Contractor, its agent, or another representative--

(1) Offered or gave a gratuity (e.g., an entertainment or gift) to an officer, official, or employee of the Government; and

(2) Intended, by the gratuity, to obtain a contract or favorable treatment under a contract.

(b) The facts supporting this determination may be reviewed by any court having lawful jurisdiction.

(c) If this contract is terminated under paragraph (a) of this clause, the Government is entitled--

(1) To pursue the same remedies as in a breach of the contract; and

(2) In addition to any other damages provided by law, to exemplary damages of not less than 3 nor more than 10 times the cost incurred by the Contractor in giving gratuities to the person concerned, as determined by the agency head or a designee. (This subparagraph (c)(2) is applicable only if this contract uses money appropriated to the Department of Defense.)

(d) The rights and remedies of the Government provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

52.203-5 COVENANT AGAINST CONTINGENT FEES (MAY 2014)

(a) The Contractor warrants that no person or agency has been employed or retained to solicit or obtain this contract upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, the Government shall have the right to annul this contract without liability or, to deduct from the contract price or consideration, or otherwise recover, the full amount of the contingent fee.

(b) "Bona fide agency," as used in this clause, means an established commercial or selling agency, maintained by a contractor for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds itself out as being able to obtain any Government contract or contracts through improper influence.

"Bona fide employee," as used in this clause, means a person, employed by a contractor and subject to the contractor's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds out as being able to obtain any Government contract or contracts through improper influence.

"Contingent fee," as used in this clause, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government contract.

"Improper influence," as used in this clause, means any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government contract on any basis other than the merits of the matter.

(End of clause)

52.203-6 RESTRICTIONS ON SUBCONTRACTOR SALES TO THE GOVERNMENT (SEP 2006)

(a) Except as provided in (b) of this clause, the Contractor shall not enter into any agreement with an actual or prospective subcontractor, nor otherwise act in any manner, which has or may have the effect of restricting sales by such subcontractors directly to the Government of any item or process (including computer software) made or furnished by the subcontractor under this contract or under any follow-on production contract.

(b) The prohibition in (a) of this clause does not preclude the Contractor from asserting rights that are otherwise authorized by law or regulation.

(c) The Contractor agrees to incorporate the substance of this clause, including this paragraph (c), in all subcontracts under this contract which exceed the simplified acquisition threshold.

(End of clause)

52.203-7 ANTI-KICKBACK PROCEDURES. (MAY 2014)

(a) Definitions.

"Kickback," as used in this clause, means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided to any prime Contractor, prime Contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a subcontract relating to a prime contract.

"Person," as used in this clause, means a corporation, partnership, business association of any kind, trust, joint-stock company, or individual.

"Prime contract," as used in this clause, means a contract or contractual action entered into by the United States for the purpose of obtaining supplies, materials, equipment, or services of any kind.

"Prime Contractor," as used in this clause, means a person who has entered into a prime contract with the United States.

"Prime Contractor employee," as used in this clause, means any officer, partner, employee, or agent of a prime Contractor.

"Subcontract," as used in this clause, means a contract or contractual action entered into by a prime Contractor or subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind under a prime contract.

"Subcontractor," as used in this clause, (1) means any person, other than the prime Contractor, who offers to furnish or furnishes any supplies, materials, equipment, or services of any kind under a prime contract or a subcontract entered into in connection with such prime contract, and (2) includes any person who offers to furnish or furnishes general supplies to the prime Contractor or a higher tier subcontractor.

"Subcontractor employee," as used in this clause, means any officer, partner, employee, or agent of a subcontractor.

(b) 41 U.S.C. chapter 87, Kickbacks, prohibits any person from--

(1) Providing or attempting to provide or offering to provide any kickback;

(2) Soliciting, accepting, or attempting to accept any kickback; or

(3) Including, directly or indirectly, the amount of any kickback in the contract price charged by a prime Contractor to the United States or in the contract price charged by a subcontractor to a prime Contractor or higher tier subcontractor.

(c)(1) The Contractor shall have in place and follow reasonable procedures designed to prevent and detect possible violations described in paragraph (b) of this clause in its own operations and direct business relationships.

(2) When the Contractor has reasonable grounds to believe that a violation described in paragraph (b) of this clause may have occurred, the Contractor shall promptly report in writing the possible violation. Such reports shall be made to the inspector general of the contracting agency, the head of the contracting agency if the agency does not have an inspector general, or the Attorney General.

(3) The Contractor shall cooperate fully with any Federal agency investigating a possible violation described in paragraph (b) of this clause.

(4) The Contracting Officer may (i) offset the amount of the kickback against any monies owed by the United States under the prime contract and/or (ii) direct that the Prime Contractor withhold, from sums owed a subcontractor under the prime contract, the amount of any kickback. The Contracting Officer may order the monies withheld under subdivision (c)(4)(ii) of this clause be paid over to the Government unless the Government has already offset those monies under subdivision (c)(4)(i) of this clause. In either case, the Prime Contractor shall notify the Contracting Officer when the monies are withheld.

(5) The Contractor agrees to incorporate the substance of this clause, including this subparagraph (c)(5) but excepting subparagraph (c)(1), in all subcontracts under this contract which exceed \$150,000.

(End of clause)

52.203-8 CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (MAY 2014)

(a) If the Government receives information that a contractor or a person has violated 41 U.S.C. 2102-2104, Restrictions on Obtaining and Disclosing Certain Information, the Government may-

(1) Cancel the solicitation, if the contract has not yet been awarded or issued; or

(2) Rescind the contract with respect to which--

(i) The Contractor or someone acting for the Contractor has been convicted for an offense where the conduct violates 41 U.S.C. 2102 for the purpose of either--

(A) Exchanging the information covered by such subsections for anything of value; or

(B) Obtaining or giving anyone a competitive advantage in the award of a Federal agency procurement contract; or

(ii) The head of the contracting activity has determined, based upon a preponderance of the evidence, that the Contractor or someone acting for the Contractor has engaged in conduct punishable under 41 U.S.C. 2105(a).

(b) If the Government rescinds the contract under paragraph (a) of this clause, the Government is entitled to recover, in addition to any penalty prescribed by law, the amount expended under the contract.

(c) The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law, regulation, or under this contract.

(End of clause)

52.203-10 PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY (MAY 2014)

(a) The Government, at its election, may reduce the price of a fixed-price type contract and the total cost and fee under a cost-type contract by the amount of profit or fee determined as set forth in paragraph (b) of this clause if the head of the contracting activity or designee determines that there was a violation of 41 U.S.C. 2102 or 2103, as implemented in section 3.104 of the Federal Acquisition Regulation.

(b) The price or fee reduction referred to in paragraph (a) of this clause shall be--

(1) For cost-plus-fixed-fee contracts, the amount of the fee specified in the contract at the time of award;

(2) For cost-plus-incentive-fee contracts, the target fee specified in the contract at the time of award, notwithstanding any minimum fee or "fee floor" specified in the contract;

(3) For cost-plus-award-fee contracts--

(i) The base fee established in the contract at the time of contract award;

(ii) If no base fee is specified in the contract, 30 percent of the amount of each award fee otherwise payable to the Contractor for each award fee evaluation period or at each award fee determination point.

(4) For fixed-price-incentive contracts, the Government may--

(i) Reduce the contract target price and contract target profit both by an amount equal to the initial target profit specified in the contract at the time of contract award; or

(ii) If an immediate adjustment to the contract target price and contract target profit would have a significant adverse impact on the incentive price revision relationship under the contract, or

adversely affect the contract financing provisions, the Contracting Officer may defer such adjustment until establishment of the total final price of the contract. The total final price established in accordance with the incentive price revision provisions of the contract shall be reduced by an amount equal to the initial target profit specified in the contract at the time of contract award and such reduced price shall be the total final contract price.

(5) For firm-fixed-price contracts, by 10 percent of the initial contract price or a profit amount determined by the Contracting Officer from records or documents in existence prior to the date of the contract award.

(c) The Government may, at its election, reduce a prime contractor's price or fee in accordance with the procedures of paragraph (b) of this clause for violations of the statute by its subcontractors by an amount not to exceed the amount of profit or fee reflected in the subcontract at the time the subcontract was first definitively priced.

(d) In addition to the remedies in paragraphs (a) and (c) of this clause, the Government may terminate this contract for default. The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

52.203-12 LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (OCT 2010)

(a) Definitions. As used in this clause--

Agency means executive agency as defined in Federal Acquisition Regulation (FAR) 2.101.

Covered Federal action means any of the following actions:

- (1) Awarding any Federal contract.
- (2) Making any Federal grant.
- (3) Making any Federal loan.
- (4) Entering into any cooperative agreement.
- (5) Extending, continuing, renewing, amending, or modifying any Federal contract, grant, loan, or cooperative agreement.

Indian tribe and tribal organization have the meaning provided in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450b) and include Alaskan Natives.

Influencing or attempting to influence means making, with the intent to influence, any communication to or appearance before an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal action.

Local government means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, including a local public authority, a special district, an intrastate district, a council of governments, a sponsor group representative organization, and any other instrumentality of a local government.

Officer or employee of an agency includes the following individuals who are employed by an agency:

- (1) An individual who is appointed to a position in the Government under Title 5, United States Code, including a position under a temporary appointment.
- (2) A member of the uniformed services, as defined in subsection 101(3), Title 37, United States Code.
- (3) A special Government employee, as defined in section 202, Title 18, United States Code.
- (4) An individual who is a member of a Federal advisory committee, as defined by the Federal Advisory Committee Act, Title 5, United States Code, appendix 2.

Person means an individual, corporation, company, association, authority, firm, partnership, society, State, and local government, regardless of whether such entity is operated for profit, or not for profit. This term excludes an Indian tribe, tribal organization, or any other Indian organization eligible to receive Federal contracts, grants, cooperative agreements, or loans from an agency, but only with respect to expenditures by such tribe or organization that are made for purposes specified in paragraph (b) of this clause and are permitted by other Federal law.

Reasonable compensation means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

Reasonable payment means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

Recipient includes the Contractor and all subcontractors. This term excludes an Indian tribe, tribal organization, or any other Indian organization eligible to receive Federal contracts, grants, cooperative agreements, or loans from an agency, but only with respect to expenditures by such tribe or organization that are made for purposes specified in paragraph (b) of this clause and are permitted by other Federal law.

Regularly employed means, with respect to an officer or employee of a person requesting or receiving a Federal contract, an officer or employee who is employed by such person for at least 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person for receipt of such contract. An officer or employee who is employed by such person for less than 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person shall be considered to be regularly employed as soon as he or she is employed by such person for 130 working days.

State means a State of the United States, the District of Columbia, or an outlying area of the United States, an agency or instrumentality of a State, and multi-State, regional, or interstate entity having governmental duties and powers.

(b) Prohibition. 31 U.S.C. 1352 prohibits a recipient of a Federal contract, grant, loan, or cooperative agreement from using appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal actions. In accordance with 31 U.S.C. 1352, the Contractor shall not use appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the award of this contract the extension, continuation, renewal, amendment, or modification of this contract.

(1) The term appropriated funds does not include profit or fee from a covered Federal action.

(2) To the extent the Contractor can demonstrate that the Contractor has sufficient monies, other than Federal appropriated funds, the Government will assume that these other monies were spent for any influencing activities that would be unallowable if paid for with Federal appropriated funds.

(c) Exceptions. The prohibition in paragraph (b) of this clause does not apply under the following conditions:

(1) Agency and legislative liaison by Contractor employees.

(i) Payment of reasonable compensation made to an officer or employee of the Contractor if the payment is for agency and legislative liaison activities not directly related to this contract. For purposes of this paragraph, providing any information specifically requested by an agency or Congress is permitted at any time.

(ii) Participating with an agency in discussions that are not related to a specific solicitation for any covered Federal action, but that concern--

(A) The qualities and characteristics (including individual demonstrations) of the person's products or services, conditions or terms of sale, and service capabilities; or

(B) The application or adaptation of the person's products or services for an agency's use.

(iii) Providing prior to formal solicitation of any covered Federal action any information not specifically requested but necessary for an agency to make an informed decision about initiation of a covered Federal action;

(iv) Participating in technical discussions regarding the preparation of an unsolicited proposal prior to its official submission; and

(v) Making capability presentations prior to formal solicitation of any covered Federal action by persons seeking awards from an agency pursuant to the provisions of the Small Business Act, as amended by Pub.L. 95-507, and subsequent amendments.

(2) Professional and technical services. (i) A payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action, if payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action.

(ii) Any reasonable payment to a person, other than an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action if the payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action. Persons other than officers or employees of a person requesting or receiving a covered Federal action include consultants and trade associations.

(iii) As used in paragraph (c)(2) of this clause, "professional and technical services" are limited to advice and analysis directly applying any professional or technical discipline (for examples, see FAR 3.803(a)(2)(iii)).

(iv) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation and any other requirements in the actual award documents.

(3) Only those communications and services expressly authorized by paragraphs (c)(1) and (2) of this clause are permitted.

(d) Disclosure. (1) If the Contractor did not submit OMB Standard Form LLL, Disclosure of Lobbying Activities, with its offer, but registrants under the Lobbying Disclosure Act of 1995 have subsequently made a lobbying contact on behalf of the Contractor with respect to this contract, the Contractor shall complete and submit OMB Standard Form LLL to provide the name of the lobbying registrants, including the individuals performing the services.

(2) If the Contractor did submit OMB Standard Form LLL disclosure pursuant to paragraph (d) of the provision at FAR 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions, and a change occurs that affects Block 10 of the OMB Standard Form LLL (name and address of lobbying registrant or individuals performing services), the Contractor shall, at the end of the calendar quarter in which the change occurs, submit to the Contracting Officer within 30 days an updated disclosure using OMB Standard Form LLL.

(e) Penalties. (1) Any person who makes an expenditure prohibited under paragraph (b) of this clause or who fails to file or amend the disclosure to be filed or amended by paragraph (d) of this clause shall be subject to civil penalties as provided for by 31 U.S.C.1352. An imposition of a civil penalty does not prevent the Government from seeking any other remedy that may be applicable.

(2) Contractors may rely without liability on the representation made by their subcontractors in the certification and disclosure form.

(f) Cost allowability. Nothing in this clause makes allowable or reasonable any costs which would otherwise be unallowable or unreasonable. Conversely, costs made specifically unallowable by the requirements in this clause will not be made allowable under any other provision.

(g) Subcontracts. (1) The Contractor shall obtain a declaration, including the certification and disclosure in paragraphs (c) and (d) of the provision at FAR 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions, from each person requesting or receiving a subcontract exceeding \$150,000 under this contract. The Contractor or subcontractor that awards the subcontract shall retain the declaration.

(2) A copy of each subcontractor disclosure form (but not certifications) shall be forwarded from tier to tier until received by the prime Contractor. The prime Contractor shall, at the end of the calendar quarter in which the disclosure form is submitted by the subcontractor, submit to the Contracting Officer within 30 days a copy of all disclosures. Each subcontractor certification shall be retained in the subcontract file of the awarding Contractor.

(3) The Contractor shall include the substance of this clause, including this paragraph (g), in any subcontract exceeding \$150,000.

(End of clause)

52.203-13 CONTRACTOR CODE OF BUSINESS ETHICS AND CONDUCT (OCT 2015)

(a) Definitions. As used in this clause--

Agent means any individual, including a director, an officer, an employee, or an independent Contractor, authorized to act on behalf of the organization.

Full cooperation—

- (1) Means disclosure to the Government of the information sufficient for law enforcement to identify the nature and extent of the offense and the individuals responsible for the conduct. It includes providing timely and complete response to Government auditors' and investigators' request for documents and access to employees with information;
- (2) Does not foreclose any Contractor rights arising in law, the FAR, or the terms of the contract. It does not require--
 - (i) A Contractor to waive its attorney-client privilege or the protections afforded by the attorney work product doctrine; or
 - (ii) Any officer, director, owner, or employee of the Contractor, including a sole proprietor, to waive his or her attorney client privilege or Fifth Amendment rights; and
- (3) Does not restrict a Contractor from--
 - (i) Conducting an internal investigation; or
 - (ii) Defending a proceeding or dispute arising under the contract or related to a potential or disclosed violation.

Principal means an officer, director, owner, partner, or a person having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a division or business segment; and similar positions).

Subcontract means any contract entered into by a subcontractor to furnish supplies or services for performance of a prime contract or a subcontract.

Subcontractor means any supplier, distributor, vendor, or firm that furnished supplies or services to or for a prime contractor or another subcontractor.

United States means the 50 States, the District of Columbia, and outlying areas.

- (b) Code of business ethics and conduct. (1) Within 30 days after contract award, unless the Contracting Officer establishes a longer time period, the Contractor shall--
 - (i) Have a written code of business ethics and conduct;
 - (ii) Make a copy of the code available to each employee engaged in performance of the contract.
- (2) The Contractor shall--
 - (i) Exercise due diligence to prevent and detect criminal conduct; and

(ii) Otherwise promote an organizational culture that encourages ethical conduct and a commitment to compliance with the law.

(3)(i) The Contractor shall timely disclose, in writing, to the agency Office of the Inspector General (OIG), with a copy to the Contracting Officer, whenever, in connection with the award, performance, or closeout of this contract or any subcontract thereunder, the Contractor has credible evidence that a principal, employee, agent, or subcontractor of the Contractor has committed--

(A) A violation of Federal criminal law involving fraud, conflict of interest, bribery, or gratuity violations found in Title 18 of the United States Code; or

(B) A violation of the civil False Claims Act (31 U.S.C. 3729-3733).

(ii) The Government, to the extent permitted by law and regulation, will safeguard and treat information obtained pursuant to the Contractor's disclosure as confidential where the information has been marked "confidential" or "proprietary" by the company. To the extent permitted by law and regulation, such information will not be released by the Government to the public pursuant to a Freedom of Information Act request, 5 U.S.C. Section 552, without prior notification to the Contractor. The Government may transfer documents provided by the Contractor to any department or agency within the Executive Branch if the information relates to matters within the organization's jurisdiction.

(iii) If the violation relates to an order against a Governmentwide acquisition contract, a multi-agency contract, a multiple-award schedule contract such as the Federal Supply Schedule, or any other procurement instrument intended for use by multiple agencies, the Contractor shall notify the OIG of the ordering agency and the IG of the agency responsible for the basic contract.

(c) Business ethics awareness and compliance program and internal control system. This paragraph (c) does not apply if the Contractor has represented itself as a small business concern pursuant to the award of this contract or if this contract is for the acquisition of a commercial item as defined at FAR 2.101. The Contractor shall establish the following within 90 days after contract award, unless the Contracting Officer establishes a longer time period:

(1) An ongoing business ethics awareness and compliance program.

(i) This program shall include reasonable steps to communicate periodically and in a practical manner the Contractor's standards and procedures and other aspects of the Contractor's business ethics awareness and compliance program and internal control system, by conducting effective training programs and otherwise disseminating information appropriate to an individual's respective roles and responsibilities.

(ii) The training conducted under this program shall be provided to the Contractor's principals and employees, and as appropriate, the Contractor's agents and subcontractors.

(2) An internal control system.

(i) The Contractor's internal control system shall--

(A) Establish standards and procedures to facilitate timely discovery of improper conduct in connection with Government contracts; and

(B) Ensure corrective measures are promptly instituted and carried out.

(ii) At a minimum, the Contractor's internal control system shall provide for the following:

(A) Assignment of responsibility at a sufficiently high level and adequate resources to ensure effectiveness of the business ethics awareness and compliance program and internal control system.

(B) Reasonable efforts not to include an individual as a principal, whom due diligence would have exposed as having engaged in conduct that is in conflict with the Contractor's code of business ethics and conduct.

(C) Periodic reviews of company business practices, procedures, policies, and internal controls for compliance with the Contractor's code of business ethics and conduct and the special requirements of Government contracting, including--

(1) Monitoring and auditing to detect criminal conduct;

(2) Periodic evaluation of the effectiveness of the business ethics awareness and compliance program and internal control system, especially if criminal conduct has been detected; and

(3) Periodic assessment of the risk of criminal conduct, with appropriate steps to design, implement, or modify the business ethics awareness and compliance program and the internal control system as necessary to reduce the risk of criminal conduct identified through this process.

(D) An internal reporting mechanism, such as a hotline, which allows for anonymity or confidentiality, by which employees may report suspected instances of improper conduct, and instructions that encourage employees to make such reports.

(E) Disciplinary action for improper conduct or for failing to take reasonable steps to prevent or detect improper conduct.

(F) Timely disclosure, in writing, to the agency OIG, with a copy to the Contracting Officer, whenever, in connection with the award, performance, or closeout of any Government contract performed by the Contractor or a subcontractor thereunder, the Contractor has credible evidence that a principal, employee, agent, or subcontractor of the Contractor has committed a violation of Federal criminal law involving fraud, conflict of interest, bribery, or gratuity violations found in Title 18 U.S.C. or a violation of the civil False Claims Act (31 U.S.C. 3729-3733).

(1) If a violation relates to more than one Government contract, the Contractor may make the disclosure to the agency OIG and Contracting Officer responsible for the largest dollar value contract impacted by the violation.

(2) If the violation relates to an order against a Governmentwide acquisition contract, a multi-agency contract, a multiple-award schedule contract such as the Federal Supply Schedule, or any other procurement instrument intended for use by multiple agencies, the contractor shall notify the OIG of the ordering agency and the IG of the agency responsible for the basic contract, and the respective agencies' contracting officers.

(3) The disclosure requirement for an individual contract continues until at least 3 years after final payment on the contract.

(4) The Government will safeguard such disclosures in accordance with paragraph (b)(3)(ii) of this clause.

(G) Full cooperation with any Government agencies responsible for audits, investigations, or corrective actions.

(d) Subcontracts.

(1) The Contractor shall include the substance of this clause, including this paragraph (d), in subcontracts that have a value in excess of \$5.5 million and a performance period of more than 120 days.

(2) In altering this clause to identify the appropriate parties, all disclosures of violation of the civil False Claims Act or of Federal criminal law shall be directed to the agency Office of the Inspector General, with a copy to the Contracting Officer.

(End of clause)

52.203-17 CONTRACTOR EMPLOYEE WHISTLEBLOWER RIGHTS AND REQUIREMENT TO INFORM EMPLOYEES OF WHISTLEBLOWER RIGHTS (APR 2014)

(a) This contract and employees working on this contract will be subject to the whistleblower rights and remedies in the pilot program on Contractor employee whistleblower protections established at 41 U.S.C. 4712 by section 828 of the National Defense Authorization Act for Fiscal Year 2013 (Pub. L. 112-239) and FAR 3.908.

(b) The Contractor shall inform its employees in writing, in the predominant language of the workforce, of employee whistleblower rights and protections under 41 U.S.C. 4712, as described in section 3.908 of the Federal Acquisition Regulation.

(c) The Contractor shall insert the substance of this clause, including this paragraph (c), in all subcontracts over the simplified acquisition threshold.

(End of clause)

52.203-19 PROHIBITION ON REQUIRING CERTAIN INTERNAL CONFIDENTIALITY
AGREEMENTS OR STATEMENTS (JAN 2017)

(a) Definitions. As used in this clause--

“Internal confidentiality agreement or statement” means a confidentiality agreement or any other written statement that the contractor requires any of its employees or subcontractors to sign regarding nondisclosure of contractor information, except that it does not include confidentiality agreements arising out of civil litigation or confidentiality agreements that contractor employees or subcontractors sign at the behest of a Federal agency.

“Subcontract” means any contract as defined in subpart 2.1 entered into by a subcontractor to furnish supplies or services for performance of a prime contract or a subcontract. It includes but is not limited to purchase orders, and changes and modifications to purchase orders.

“Subcontractor” means any supplier, distributor, vendor, or firm (including a consultant) that furnishes supplies or services to or for a prime contractor or another subcontractor.

(b) The Contractor shall not require its employees or subcontractors to sign or comply with internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or subcontractors from lawfully reporting waste, fraud, or abuse related to the performance of a Government contract to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information (e.g., agency Office of the Inspector General).

(c) The Contractor shall notify current employees and subcontractors that prohibitions and restrictions of any preexisting internal confidentiality agreements or statements covered by this clause, to the extent that such prohibitions and restrictions are inconsistent with the prohibitions of this clause, are no longer in effect.

(d) The prohibition in paragraph (b) of this clause does not contravene requirements applicable to Standard Form 312 (Classified Information Nondisclosure Agreement), Form 4414 (Sensitive Compartmented Information Nondisclosure Agreement), or any other form issued by a Federal department or agency governing the nondisclosure of classified information.

(e) In accordance with section 743 of Division E, Title VII, of the Consolidated and Further Continuing Appropriations Act, 2015, (Pub. L. 113-235), and its successor provisions in subsequent appropriations acts (and as extended in continuing resolutions) use of funds appropriated (or otherwise made available) is prohibited, if the Government determines that the Contractor is not in compliance with the provisions of this clause.

(f) The Contractor shall include the substance of this clause, including this paragraph (f), in subcontracts under such contracts.

(End of clause)

52.204-4 PRINTED OR COPIED DOUBLE-SIDED ON POSTCONSUMER FIBER
CONTENT PAPER (MAY 2011)

(a) Definitions. As used in this clause--

Postconsumer fiber means—

(1) Paper, paperboard, and fibrous materials from retail stores, office buildings, homes, and so forth, after they have passed through their end-usage as a consumer item, including: used corrugated boxes; old newspapers; old magazines; mixed waste paper; tabulating cards; and used cordage; or

(2) All paper, paperboard, and fibrous materials that enter and are collected from municipal solid waste; but not

(3) Fiber derived from printers' over-runs, converters' scrap, and over-issue publications.

(b) The Contractor is required to submit paper documents, such as offers, letters, or reports that are printed or copied double-sided on paper containing at least 30 percent postconsumer fiber, whenever practicable, when not using electronic commerce methods to submit information or data to the Government.

(End of clause)

52.204-7 SYSTEM FOR AWARD MANAGEMENT (OCT 2016) ALTERNATE I (JULY 2013)

(a) Definitions. As used in this provision--Electronic Funds Transfer (EFT) indicator means a four-character suffix to the unique entity identifier. The suffix is assigned at the discretion of the commercial, nonprofit, or Government entity to establish additional System for Award Management records for identifying alternative EFT accounts (see subpart 32.11) for the same entity.

Registered in the System for Award Management (SAM) database means that--

(1) The Offeror has entered all mandatory information, including the unique entity identifier and the EFT indicator, if applicable, the Commercial and Government Entity (CAGE) code, as well as data required by the Federal Funding Accountability and Transparency Act of 2006 (see subpart 4.14) into the SAM database;

(2) The offeror has completed the Core, Assertions, and Representations and Certifications, and Points of Contact sections of the registration in the SAM database;

(3) The Government has validated all mandatory data fields, to include validation of the Taxpayer Identification Number (TIN) with the Internal Revenue Service (IRS). The offeror will

be required to provide consent for TIN validation to the Government as a part of the SAM registration process; and

(4) The Government has marked the record ``Active". Unique entity identifier means a number or other identifier used to identify a specific commercial, nonprofit, or Government entity. See www.sam.gov for the designated entity for establishing unique entity identifiers.

(b)(1) By submission of an offer, the Offeror acknowledges the requirement that a prospective awardee shall be registered in the SAM database prior to award, during performance, and through final payment of any contract, basic agreement, basic ordering agreement, or blanket purchasing agreement resulting from this solicitation. If registration prior to award is not possible, the awardee shall be registered in the SAM database within 30 days after award or before three days prior to submission of the first invoice, whichever occurs first.

(2) The Offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation ``Unique Entity Identifier" followed by the unique entity identifier that identifies the Offeror's name and address exactly as stated in the offer. The Offeror also shall enter its EFT indicator, if applicable. The unique entity identifier will be used by the Contracting Officer to verify that the Offeror is registered in the SAM database.

(c) If the Offeror does not have a unique entity identifier, it should contact the entity designated at www.sam.gov for establishment of the unique entity identifier directly to obtain one. The Offeror should be prepared to provide the following information:

- (1) Company legal business name.
- (2) Tradestyle, doing business, or other name by which your entity is commonly recognized.
- (3) Company physical street address, city, state, and Zip Code.
- (4) Company mailing address, city, state and Zip Code (if separate from physical).
- (5) Company telephone number.
- (6) Date the company was started.
- (7) Number of employees at your location.
- (8) Chief executive officer/key manager.
- (9) Line of business (industry).
- (10) Company headquarters name and address (reporting relationship within your entity).

(d) If the Offeror does not become registered in the SAM database in the time prescribed by the Contracting Officer, the Contracting Officer will proceed to award to the next otherwise successful registered Offeror.

(e) Processing time, which normally takes 48 hours, should be taken into consideration when registering. Offerors who are not registered should consider applying for registration immediately upon receipt of this solicitation.

(f) Offerors may obtain information on registration at <https://www.acquisition.gov>.

(End of clause)

52.204-10 REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS (OCT 2016)

(a) Definitions. As used in this clause:

Executive means officers, managing partners, or any other employees in management positions.

First-tier subcontract means a subcontract awarded directly by the Contractor for the purpose of acquiring supplies or services (including construction) for performance of a prime contract. It does not include the Contractor's supplier agreements with vendors, such as long-term arrangements for materials or supplies that benefit multiple contracts and/or the costs of which are normally applied to a Contractor's general and administrative expenses or indirect costs.

Month of award means the month in which a contract is signed by the Contracting Officer or the month in which a first-tier subcontract is signed by the Contractor.

Total compensation means the cash and noncash dollar value earned by the executive during the Contractor's preceding fiscal year and includes the following (for more information see 17 CFR 229.402(c)(2)):

(1) Salary and bonus.

(2) Awards of stock, stock options, and stock appreciation rights. Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with the Financial Accounting Standards Board's Accounting Standards Codification (FASB ASC) 718, Compensation-Stock Compensation.

(3) Earnings for services under non-equity incentive plans. This does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.

(4) Change in pension value. This is the change in present value of defined benefit and actuarial pension plans.

(5) Above-market earnings on deferred compensation which is not tax-qualified.

(6) Other compensation, if the aggregate value of all such other compensation (e.g., severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property) for the executive exceeds \$10,000.

(b) Section 2(d)(2) of the Federal Funding Accountability and Transparency Act of 2006 (Pub. L. 109-282), as amended by section 6202 of the Government Funding Transparency Act of 2008 (Pub. L. 110-252), requires the Contractor to report information on subcontract awards. The law requires all reported information be made public, therefore, the Contractor is responsible for notifying its subcontractors that the required information will be made public.

(c) Nothing in this clause requires the disclosure of classified information.

(d)(1) Executive compensation of the prime contractor. As a part of its annual registration requirement in the System for Award Management (SAM) database (FAR provision 52.204-7), the Contractor shall report the names and total compensation of each of the five most highly compensated executives for its preceding completed fiscal year, if—

(i) In the Contractor's preceding fiscal year, the Contractor received—

(A) 80 percent or more of its annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants), cooperative agreements, and other forms of Federal financial assistance; and

(B) \$25,000,000 or more in annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants), cooperative agreements, and other forms of Federal financial assistance; and

(ii) The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <http://www.sec.gov/answers/excomp.htm>.)

(2) First-tier subcontract information. Unless otherwise directed by the contracting officer, or as provided in paragraph (g) of this clause, by the end of the month following the month of award of a first-tier subcontract with a value of \$30,000 or more, the Contractor shall report the following information at <http://www.fsrc.gov> for that first-tier subcontract. (The Contractor shall follow the instructions at <http://www.fsrc.gov> to report the data.)

(i) Unique entity identifier for the subcontractor receiving the award and for the subcontractor's parent company, if the subcontractor has a parent company.

(ii) Name of the subcontractor.

- (iii) Amount of the subcontract award.
 - (iv) Date of the subcontract award.
 - (v) A description of the products or services (including construction) being provided under the subcontract, including the overall purpose and expected outcomes or results of the subcontract.
 - (vi) Subcontract number (the subcontract number assigned by the Contractor).
 - (vii) Subcontractor's physical address including street address, city, state, and country. Also include the nine-digit zip code and congressional district.
 - (viii) Subcontractor's primary performance location including street address, city, state, and country. Also include the nine-digit zip code and congressional district.
 - (ix) The prime contract number, and order number if applicable.
 - (x) Awarding agency name and code.
 - (xi) Funding agency name and code.
 - (xii) Government contracting office code.
 - (xiii) Treasury account symbol (TAS) as reported in FPDS.
 - (xiv) The applicable North American Industry Classification System code (NAICS).
- (3) Executive compensation of the first-tier subcontractor. Unless otherwise directed by the Contracting Officer, by the end of the month following the month of award of a first-tier subcontract with a value of \$30,000 or more, and annually thereafter (calculated from the prime contract award date), the Contractor shall report the names and total compensation of each of the five most highly compensated executives for that first-tier subcontractor for the first-tier subcontractor's preceding completed fiscal year at <http://www.fsrc.gov>, if—
- (i) In the subcontractor's preceding fiscal year, the subcontractor received—
 - (A) 80 percent or more of its annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants), cooperative agreements, and other forms of Federal financial assistance; and
 - (B) \$25,000,000 or more in annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants), cooperative agreements, and other forms of Federal financial assistance; and
 - (ii) The public does not have access to information about the compensation of the executives

through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <http://www.sec.gov/answers/execomp.htm>.)

(e) The Contractor shall not split or break down first-tier subcontract awards to a value less than \$30,000 to avoid the reporting requirements in paragraph (d) of this clause.

(f) The Contractor is required to report information on a first-tier subcontract covered by paragraph (d) when the subcontract is awarded. Continued reporting on the same subcontract is not required unless one of the reported data elements changes during the performance of the subcontract. The Contractor is not required to make further reports after the first-tier subcontract expires.

(g)(1) If the Contractor in the previous tax year had gross income, from all sources, under \$300,000, the Contractor is exempt from the requirement to report subcontractor awards.

(2) If a subcontractor in the previous tax year had gross income from all sources under \$300,000, the Contractor does not need to report awards for that subcontractor.

(h) The FSRS database at <http://www.fsrs.gov> will be prepopulated with some information from SAM and FPDS databases. If FPDS information is incorrect, the contractor should notify the contracting officer. If the SAM database information is incorrect, the contractor is responsible for correcting this information.

(End of clause)

52.204-13 SYSTEM FOR AWARD MANAGEMENT MAINTENANCE (OCT 2016)

(a) Definitions. As used in this clause--

Electronic Funds Transfer (EFT) indicator means a four-character suffix to the unique entity identifier. The suffix is assigned at the discretion of the commercial, nonprofit, or Government entity to establish additional System for Award Management (SAM) records for identifying alternative EFT accounts (see subpart 32.11) for the same entity.

Registered in the System for Award Management (SAM) database means that--

(1) The Contractor has entered all mandatory information, including the unique entity identifier and the EFT indicator (if applicable), the Commercial and Government Entity (CAGE) code, as well as data required by the Federal Funding Accountability and Transparency Act of 2006 (see subpart 4.14), into the SAM database;

(2) The Contractor has completed the Core, Assertions, Representations and Certifications, and Points of Contact sections of the registration in the SAM database;

(3) The Government has validated all mandatory data fields, to include validation of the Taxpayer Identification Number (TIN) with the Internal Revenue Service (IRS). The Contractor will be required to provide consent for TIN validation to the Government as a part of the SAM registration process; and

(4) The Government has marked the record ``Active".

System for Award Management (SAM) means the primary Government repository for prospective Federal awardee and Federal awardee information and the centralized Government system for certain contracting, grants, and other assistance-related processes. It includes—

(1) Data collected from prospective Federal awardees required for the conduct of business with the Government;

(2) Prospective contractor-submitted annual representations and certifications in accordance with FAR subpart 4.12; and

(3) Identification of those parties excluded from receiving Federal contracts, certain subcontracts, and certain types of Federal financial and non-financial assistance and benefits.

Unique entity identifier means a number or other identifier used to identify a specific commercial, nonprofit, or Government entity. See www.sam.gov for the designated entity for establishing unique entity identifiers.

(b) The Contractor is responsible for the accuracy and completeness of the data within the SAM database, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the SAM database after the initial registration, the Contractor is required to review and update on an annual basis, from the date of initial registration or subsequent updates, its information in the SAM database to ensure it is current, accurate and complete. Updating information in the SAM does not alter the terms and conditions of this contract and is not a substitute for a properly executed contractual document.

(c)(1)(i) If a Contractor has legally changed its business name, doing business as name, or division name (whichever is shown on the contract), or has transferred the assets used in performing the contract, but has not completed the necessary requirements regarding novation and change-of-name agreements in subpart 42.12, the Contractor shall provide the responsible Contracting Officer a minimum of one business day's written notification of its intention to—

(A) Change the name in the SAM database;

(B) Comply with the requirements of subpart 42.12 of the FAR; and

(C) Agree in writing to the timeline and procedures specified by the responsible Contracting Officer. The Contractor shall provide with the notification sufficient documentation to support the legally changed name.

(ii) If the Contractor fails to comply with the requirements of paragraph (c)(1)(i) of this clause, or fails to perform the agreement at paragraph (c)(1)(i)(C) of this clause, and, in the absence of a properly executed novation or change-of-name agreement, the SAM information that shows the Contractor to be other than the Contractor indicated in the contract will be considered to be incorrect information within the meaning of the "Suspension of Payment" paragraph of the electronic funds transfer (EFT) clause of this contract.

(2) The Contractor shall not change the name or address for EFT payments or manual payments, as appropriate, in the SAM record to reflect an assignee for the purpose of assignment of claims (see FAR subpart 32.8, Assignment of Claims). Assignees shall be separately registered in the SAM. Information provided to the Contractor's SAM record that indicates payments, including those made by EFT, to an ultimate recipient other than that Contractor will be considered to be incorrect information within the meaning of the "Suspension of Payment" paragraph of the EFT clause of this contract.

(3) The Contractor shall ensure that the unique entity identifier is maintained with the entity designated at www.sam.gov for establishment of the unique entity identifier throughout the life of the contract. The Contractor shall communicate any change to the unique entity identifier to the Contracting Officer within 30 days after the change, so an appropriate modification can be issued to update the data on the contract. A change in the unique entity identifier does not necessarily require a novation be accomplished.

(d) Contractors may obtain additional information on registration and annual confirmation requirements at <https://www.acquisition.gov>.

(End of clause)

52.204-18 COMMERCIAL AND GOVERNMENT ENTITY CODE MAINTENANCE (JUL 2016)

(a) Definition. As used in this clause--

Commercial and Government Entity (CAGE) code means--

(1) An identifier assigned to entities located in the United States or its outlying areas by the Defense Logistics Agency (DLA) Commercial and Government Entity (CAGE) Branch to identify a commercial or government entity; or

(2) An identifier assigned by a member of the North Atlantic Treaty Organization (NATO) or by the NATO Support and Procurement Agency (NSPA) to entities located outside the United States and its outlying areas that the DLA Commercial and Government Entity (CAGE) Branch records and maintains in the CAGE master file. This type of code is known as a NATO CAGE (NCAGE) code.

(b) Contractors shall ensure that the CAGE code is maintained throughout the life of the contract. For contractors registered in the System for Award Management (SAM), the DLA Commercial and Government Entity (CAGE) Branch shall only modify data received from SAM in the CAGE master file if the contractor initiates those changes via update of its SAM registration. Contractors undergoing a novation or change-of-name agreement shall notify the contracting officer in accordance with subpart 42.12. The contractor shall communicate any change to the CAGE code to the contracting officer within 30 days after the change, so that a modification can be issued to update the CAGE code on the contract.

(c) Contractors located in the United States or its outlying areas that are not registered in SAM shall submit written change requests to the DLA Commercial and Government Entity (CAGE) Branch. Requests for changes shall be provided at <https://cage.dla.mil>. Change requests to the CAGE master file are accepted from the entity identified by the code.

(d) Contractors located outside the United States and its outlying areas that are not registered in SAM shall contact the appropriate National Codification Bureau (points of contact available at <http://www.nato.int/structur/AC/135/main/links/contacts.htm>) or NSPA at <https://eportal.nspa.nato.int/AC135Public/scage/CageList.aspx> to request CAGE changes.

(e) Additional guidance for maintaining CAGE codes is available at <https://cage.dla.mil>.

(End of Clause)

52.204-19 INCORPORATION BY REFERENCE OF REPRESENTATIONS AND CERTIFICATIONS (DEC 2014)

The Contractor's representations and certifications, including those completed electronically via the System for Award Management (SAM), are incorporated by reference into the contract.

(End of clause)

52.204-21 BASIC SAFEGUARDING OF COVERED CONTRACTOR INFORMATION SYSTEMS (JUN 2016)

(a) Definitions. As used in this clause--

Covered contractor information system means an information system that is owned or operated by a contractor that processes, stores, or transmits Federal contract information.

Federal contract information means information, not intended for public release, that is provided by or generated for the Government under a contract to develop or deliver a product or service to the Government, but not including information provided by the Government to the public (such as on public Web sites) or simple transactional information, such as necessary to process payments.

Information means any communication or representation of knowledge such as facts, data, or opinions, in any medium or form, including textual, numerical, graphic, cartographic, narrative, or audiovisual (Committee on National Security Systems Instruction (CNSSI) 4009).

Information system means a discrete set of information resources organized for the collection, processing, maintenance, use, sharing, dissemination, or disposition of information (44 U.S.C. 3502).

Safeguarding means measures or controls that are prescribed to protect information systems.

(b) Safeguarding requirements and procedures.

(1) The Contractor shall apply the following basic safeguarding requirements and procedures to protect covered contractor information systems. Requirements and procedures for basic safeguarding of covered contractor information systems shall include, at a minimum, the following security controls:

(i) Limit information system access to authorized users, processes acting on behalf of authorized users, or devices (including other information systems).

(ii) Limit information system access to the types of transactions and functions that authorized users are permitted to execute.

(iii) Verify and control/limit connections to and use of external information systems.

(iv) Control information posted or processed on publicly accessible information systems.

(v) Identify information system users, processes acting on behalf of users, or devices.

(vi) Authenticate (or verify) the identities of those users, processes, or devices, as a prerequisite to allowing access to organizational information systems.

(vii) Sanitize or destroy information system media containing Federal Contract Information before disposal or release for reuse.

(viii) Limit physical access to organizational information systems, equipment, and the respective operating environments to authorized individuals.

(ix) Escort visitors and monitor visitor activity; maintain audit logs of physical access; and control and manage physical access devices.

(x) Monitor, control, and protect organizational communications (i.e., information transmitted or received by organizational information systems) at the external boundaries and key internal boundaries of the information systems.

(xi) Implement subnetworks for publicly accessible system components that are physically or logically separated from internal networks.

(xii) Identify, report, and correct information and information system flaws in a timely manner.

(xiii) Provide protection from malicious code at appropriate locations within organizational information systems.

(xiv) Update malicious code protection mechanisms when new releases are available.

(xv) Perform periodic scans of the information system and real-time scans of files from external sources as files are downloaded, opened, or executed.

(2) Other requirements. This clause does not relieve the Contractor of any other specific safeguarding requirements specified by Federal agencies and departments relating to covered contractor information systems generally or other Federal safeguarding requirements for controlled unclassified information (CUI) as established by Executive Order 13556.

(c) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (c), in subcontracts under this contract (including subcontracts for the acquisition of commercial items, other than commercially available off-the-shelf items), in which the subcontractor may have Federal contract information residing in or transiting through its information system.

(End of clause)

52.204-23 PROHIBITION ON CONTRACTING FOR HARDWARE, SOFTWARE, AND SERVICES DEVELOPED OR PROVIDED BY KASPERSKY LAB AND OTHER COVERED ENTITIES (JUL 2018)

(a) Definitions. As used in this clause--

Covered article means any hardware, software, or service that--

(1) Is developed or provided by a covered entity;

(2) Includes any hardware, software, or service developed or provided in whole or in part by a covered entity; or

(3) Contains components using any hardware or software developed in whole or in part by a covered entity.

Covered entity means--

(1) Kaspersky Lab;

(2) Any successor entity to Kaspersky Lab;

(3) Any entity that controls, is controlled by, or is under common control with Kaspersky Lab; or

(4) Any entity of which Kaspersky Lab has a majority ownership.

(b) Prohibition. Section 1634 of Division A of the National Defense Authorization Act for Fiscal Year 2018 (Pub. L. 115-91) prohibits Government use of any covered article. The Contractor is prohibited from--

(1) Providing any covered article that the Government will use on or after October 1, 2018; and

(2) Using any covered article on or after October 1, 2018, in the development of data or deliverables first produced in the performance of the contract.

(c) Reporting requirement. (1) In the event the Contractor identifies a covered article provided to the Government during contract performance, or the Contractor is notified of such by a subcontractor at any tier or any other source, the Contractor shall report, in writing, to the Contracting Officer or, in the case of the Department of Defense, to the website at <https://dibnet.dod.mil/>. For indefinite delivery contracts, the Contractor shall report to the Contracting Officer for the indefinite delivery contract and the Contracting Officer(s) for any affected order or, in the case of the Department of Defense, identify both the indefinite delivery contract and any affected orders in the report provided at <https://dibnet.dod.mil/>.

(2) The Contractor shall report the following information pursuant to paragraph (c)(1) of this clause:

(i) Within 1 business day from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; brand; model number (Original Equipment Manufacturer (OEM) number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

(ii) Within 10 business days of submitting the report pursuant to paragraph (c)(1) of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the Contractor shall describe the efforts it undertook to prevent use or submission of a covered article, any reasons that led to the use or submission of the covered article, and any additional efforts that will be incorporated to prevent future use or submission of covered articles.

(d) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (d), in all subcontracts, including subcontracts for the acquisition of commercial items.

(End of clause)

52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING
WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT
(OCT 2015)

(a) Definition. Commercially available off-the-shelf (COTS) item, as used in this clause--

(1) Means any item of supply (including construction material) that is--

(i) A commercial item (as defined in paragraph (1) of the definition in FAR 2.101);

(ii) Sold in substantial quantities in the commercial marketplace; and

(iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4), such as agricultural products and petroleum products.

(b) The Government suspends or debars Contractors to protect the Government's interests. Other than a subcontract for a commercially available off-the-shelf item, the Contractor shall not enter into any subcontract, in excess of \$35,000 with a Contractor that is debarred, suspended, or proposed for debarment by any executive agency unless there is a compelling reason to do so.

(c) The Contractor shall require each proposed subcontractor whose subcontract will exceed \$35,000, other than a subcontractor providing a commercially available off-the-shelf item, to disclose to the Contractor, in writing, whether as of the time of award of the subcontract, the subcontractor, or its principals, is or is not debarred, suspended, or proposed for debarment by the Federal Government.

(d) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party (other than a subcontractor providing a commercially available off-the-shelf item) that is debarred, suspended, or proposed for debarment (see FAR 9.404 for information on the System for Award Management (SAM) Exclusions). The notice must include the following:

(1) The name of the subcontractor.

(2) The Contractor's knowledge of the reasons for the subcontractor being listed with an exclusion in SAM.

(3) The compelling reason(s) for doing business with the subcontractor notwithstanding its being listed with an exclusion in SAM.

(4) The systems and procedures the Contractor has established to ensure that it is fully protecting the Government's interests when dealing with such subcontractor in view of the specific basis for the party's debarment, suspension, or proposed debarment.

(e) Subcontracts. Unless this is a contract for the acquisition of commercial items, the Contractor shall include the requirements of this clause, including this paragraph (e) (appropriately modified for the identification of the parties), in each subcontract that--

(1) Exceeds \$35,000 in value; and

(2) Is not a subcontract for commercially available off-the-shelf items.

(End of clause)

52.209-9 UPDATES OF PUBLICLY AVAILABLE INFORMATION REGARDING RESPONSIBILITY MATTERS (JULY 2013)

(a) The Contractor shall update the information in the Federal Awardee Performance and Integrity Information System (FAPIIS) on a semi-annual basis, throughout the life of the contract, by posting the required information in the System for Award Management database via <https://www.acquisition.gov>.

(b) As required by section 3010 of the Supplemental Appropriations Act, 2010 (Pub. L. 111-212), all information posted in FAPIIS on or after April 15, 2011, except past performance reviews, will be publicly available. FAPIIS consists of two segments--

(1) The non-public segment, into which Government officials and the Contractor post information, which can only be viewed by--

(i) Government personnel and authorized users performing business on behalf of the Government; or

(ii) The Contractor, when viewing data on itself; and

(2) The publicly-available segment, to which all data in the non-public segment of FAPIIS is automatically transferred after a waiting period of 14 calendar days, except for--

(i) Past performance reviews required by subpart 42.15;

(ii) Information that was entered prior to April 15, 2011; or

(iii) Information that is withdrawn during the 14-calendar-day waiting period by the Government official who posted it in accordance with paragraph (c)(1) of this clause.

(c) The Contractor will receive notification when the Government posts new information to the Contractor's record.

(1) If the Contractor asserts in writing within 7 calendar days, to the Government official who posted the information, that some of the information posted to the non-public segment of FAPIIS is covered by a disclosure exemption under the Freedom of Information Act, the Government

official who posted the information must within 7 calendar days remove the posting from FAPIIS and resolve the issue in accordance with agency Freedom of Information procedures, prior to reposting the releasable information. The contractor must cite 52.209-9 and request removal within 7 calendar days of the posting to FAPIIS.

(2) The Contractor will also have an opportunity to post comments regarding information that has been posted by the Government. The comments will be retained as long as the associated information is retained, i.e., for a total period of 6 years. Contractor comments will remain a part of the record unless the Contractor revises them.

(3) As required by section 3010 of Pub. L. 111-212, all information posted in FAPIIS on or after April 15, 2011, except past performance reviews, will be publicly available.

(d) Public requests for system information posted prior to April 15, 2011, will be handled under Freedom of Information Act procedures, including, where appropriate, procedures promulgated under E.O. 12600.

(End of clause)

52.209-10 PROHIBITION ON CONTRACTING WITH INVERTED DOMESTIC CORPORATIONS. (NOV 2015)

(a) Definitions. As used in this clause--

Inverted domestic corporation means a foreign incorporated entity that meets the definition of an inverted domestic corporation under 6 U.S.C. 395(b), applied in accordance with the rules and definitions of 6 U.S.C. 395(c).

Subsidiary means an entity in which more than 50 percent of the entity is owned--

(1) Directly by a parent corporation; or

(2) Through another subsidiary of a parent corporation.

(b) If the contractor reorganizes as an inverted domestic corporation or becomes a subsidiary of an inverted domestic corporation at any time during the period of performance of this contract, the Government may be prohibited from paying for Contractor activities performed after the date when it becomes an inverted domestic corporation or subsidiary. The Government may seek any available remedies in the event the Contractor fails to perform in accordance with the terms and conditions of the contract as a result of Government action under this clause.

(c) Exceptions to this prohibition are located at 9.108-2.

(d) In the event the Contractor becomes either an inverted domestic corporation, or a subsidiary of an inverted domestic corporation during contract performance, the Contractor shall give written notice to the Contracting Officer within five business days from the date of the inversion event.

(End of clause)

52.210-1 MARKET RESEARCH (APR 2011)

(a) Definition. As used in this clause--

Commercial item and nondevelopmental item have the meaning contained in Federal Acquisition Regulation 2.101.

(b) Before awarding subcontracts over the simplified acquisition threshold for items other than commercial items, the Contractor shall conduct market research to--

(1) Determine if commercial items or, to the extent commercial items suitable to meet the agency's needs are not available, nondevelopmental items are available that--

(i) Meet the agency's requirements;

(ii) Could be modified to meet the agency's requirements; or

(iii) Could meet the agency's requirements if those requirements were modified to a reasonable extent; and

(2) Determine the extent to which commercial items or nondevelopmental items could be incorporated at the component level.

(End of clause)

52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to (a) commence work under this contract within **twenty (20)** calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than **identified per task order**.

*The time stated for completion shall include final cleanup of the premises.

(End of clause)

52.211-12 LIQUIDATED DAMAGES--CONSTRUCTION (SEP 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount **identified per task order** for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of clause)

52.211-13 TIME EXTENSIONS (SEP 2000)

Time extensions for contract changes will depend upon the extent, if any, by which the changes cause delay in the completion of the various elements of construction. The change order granting the time extension may provide that the contract completion date will be extended only for those specific elements related to the changed work and that the remaining contract completion dates for all other portions of the work will not be altered. The change order also may provide an equitable readjustment of liquidated damages under the new completion schedule.

(End of clause)

52.211-18 VARIATION IN ESTIMATED QUANTITY (APR 1984)

If the quantity of a unit-priced item in this contract is an estimated quantity and the actual quantity of the unit-priced item varies more than 15 percent above or below the estimated quantity, an equitable adjustment in the contract price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115 percent or below 85 percent of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the Contractor may request, in writing, an extension of time, to be received by the Contracting Officer within 10 days from the beginning of the delay, or within such further period as may be granted by the Contracting Officer before the date of final settlement of the contract. Upon the receipt of a written request for an extension, the Contracting Officer shall ascertain the facts and make an adjustment for extending the completion date as, in the judgment of the Contracting Officer, is justified.

(End of clause)

52.214-26 AUDIT AND RECORDS--SEALED BIDDING (OCT 2010)

(a) As used in this clause, records includes books, documents, accounting procedures and practices, and other data, regardless of type and regardless of whether such items are in written form, in the form of computer data, or in any other form.

(b) Certified cost or pricing data. If the Contractor has been required to submit certified cost or pricing data in connection with the pricing of any modification to this contract, the Contracting Officer, or an authorized representative of the Contracting Officer, in order to evaluate the accuracy, completeness, and currency of the certified cost or pricing data, shall have the right to examine and audit all of the Contractor's records, including computations and projections, related to--

(1) The proposal for the modification;

(2) The discussions conducted on the proposal(s), including those related to negotiating;

(3) Pricing of the modification; or

(4) Performance of the modification.

(c) Comptroller General. In the case of pricing any modification, the Comptroller General of the United States, or an authorized representative, shall have the same rights as specified in paragraph (b) of this clause and also the right to interview any current employee regarding such transactions.

(d) Availability. The Contractor shall make available at its office at all reasonable times the materials described in reproduction, until 3 years after final payment under this contract, or for any other period specified in Subpart 4.7 of the Federal Acquisition Regulation (FAR). FAR Subpart 4.7, Contractor Records Retention, in effect on the date of this contract, is incorporated by reference in its entirety and made a part of this contract.

(1) If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement.

(2) Records pertaining to appeals under the Disputes clause or to litigation or the settlement of claims arising under or relating to the performance of this contract shall be made available until disposition of such appeals, litigation, or claims.

(e) The Contractor shall insert a clause containing all the provisions of this clause, including this paragraph (e), in all subcontracts expected to exceed the threshold in FAR 15.403-4(a)(1) for submission of certified cost or pricing data.

(End of clause)

52.214-27 PRICE REDUCTION FOR DEFECTIVE CERTIFIED COST OR PRICING DATA
- MODIFICATIONS - SEALED BIDDING. (AUG 2011)

(a) This clause shall become operative only for any modification to this contract involving aggregate increases and/or decreases in costs, plus applicable profits, expected to exceed the threshold for the submission of certified cost or pricing data at FAR 15.403-4(a)(1), except that this clause does not apply to a modification if an exception under FAR 15.403-1(b) applies.

(b) If any price, including profit, negotiated in connection with any modification under this clause, was increased by any significant amount because

(1) the Contractor or a subcontractor furnished certified cost or pricing data that were not complete, accurate, and current as certified in its Certificate of Current Cost or Pricing Data;

(2) a subcontractor or prospective subcontractor furnished the Contractor certified cost or pricing data that were not complete, accurate, and current as certified in the Contractor's Certificate of Current Cost or Pricing Data; or

(3) any of these parties furnished data of any description that were not accurate, the price shall be reduced accordingly and the contract shall be modified to reflect the reduction. This right to a price reduction is limited to that resulting from defects in data relating to modifications for which this clause becomes operative under paragraph (a) above.

(c) Any reduction in the contract price under paragraph (b) of this clause due to defective data from a prospective subcontractor that was not subsequently awarded the subcontract shall be limited to the amount, plus applicable overhead and profit markup, by which:

(1) the actual subcontract; or

(2) the actual cost to the Contractor, if there was no subcontract, was less than the prospective subcontract cost estimate submitted by the Contractor; provided, that the actual subcontract price was not itself affected by defective certified cost or pricing data.

(d) If the Contracting Officer determines under paragraph (b) of this clause that a price or cost reduction should be made:

(1) the Contractor agrees not to raise the following matters as a defense:

(i) The Contractor or subcontractor was a sole source supplier or otherwise was in a superior bargaining position and thus the price of the contract would not have been modified even if accurate, complete, and current certified cost or pricing data had been submitted;

(ii) The Contracting Officer should have known that the certified cost or pricing data in issue were defective even though the Contractor or subcontractor took no affirmative action to bring the character of the data to the attention of the Contracting Officer;

(iii) The contract was based on an agreement about the total cost of the contract and there was no agreement about the cost of each item procured under the contract; or

(iv) The Contractor or subcontractor did not submit a Certificate of Current Cost or Pricing Data.

(2) Except as prohibited by subdivision (d)(2)(ii) of this clause:

(i) an offset in an amount determined appropriate by the Contracting Officer based upon the facts shall be allowed against the amount of a contract price reduction if:

(A) The Contractor certifies to the Contracting Officer that, to the best of the Contractor's knowledge and belief, the Contractor is entitled to the offset in the amount requested; and

(B) The Contractor proves that the certified cost or pricing data were available before the date of agreement on the price of the contract (or price of the modification) and that the data were not submitted before such date.

(ii) An offset shall not be allowed if:

(A) The understated data was known by the Contractor to be understated when the Certificate of Current Cost or Pricing Data was signed; or (B) The Government proves that the facts demonstrate that the contract price would not have increased in the amount to be offset even if the available data had been submitted before the date of agreement on price.

(e) If any reduction in the contract price under this clause reduces the price of items for which payment was made prior to the date of the modification reflecting the price reduction, the Contractor shall be liable to and shall pay the United States at the time such overpayment is repaid:

(1) Interest compounded daily, as required by 26 U.S.C. 6622, on the amount of such overpayment to be computed from the date(s) of overpayment to the Contractor to the date the Government is repaid by the Contractor at the applicable underpayment rate effective for each quarter prescribed by the Secretary of the Treasury under 26 U.S.C. 6621(a)(2); and

(2) A penalty equal to the amount of the overpayment, if the Contractor or subcontractor knowingly submitted certified cost or pricing data which were incomplete, inaccurate, or noncurrent.

(End of clause)

52.214-28 SUBCONTRACTOR CERTIFIED COST OR PRICING DATA - MODIFICATIONS - SEALED BIDDING. (OCT 2010)

(a) The requirements of paragraphs (b) and (c) of this clause shall—

(1) Become operative only for any modification to this contract involving aggregate increases and/or decreases in costs, plus applicable profits, expected to exceed the threshold for submission of certified cost or pricing data at FAR [15.403-4\(a\)\(1\)](#); and

(2) Be limited to such modifications.

(b) Before awarding any subcontract expected to exceed the threshold for submission of certified cost or pricing data at FAR [15.403-4\(a\)\(1\)](#), on the date of agreement on price or the date of award, whichever is later, or before pricing any subcontract modifications involving aggregate increases and/or decreases in costs, plus applicable profits, expected to exceed the threshold for submission of certified cost or pricing data at FAR [15.403-4\(a\)\(1\)](#), the Contractor shall require the subcontractor to submit certified cost or pricing data (actually or by specific identification in writing), as part of the subcontractor's proposal in accordance with FAR [15.408](#), Table [15-2](#) (to include any information reasonably required to explain the subcontractor's estimating process such as the judgmental factors applied and the mathematical or other methods used in the estimate, including those used in projecting from known data, and the nature and amount of any contingencies included in the price), unless an exception under FAR [15.403-1\(b\)](#) applies.

(c) The Contractor shall require the subcontractor to certify in substantially the form prescribed in FAR subsection [15.406-2](#) that, to the best of its knowledge and belief, the data submitted under paragraph (b) of this clause were accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract modification.

(d) The Contractor shall insert the substance of this clause, including this paragraph (d), in each subcontract that, when entered into, exceeds the threshold for submission of certified cost or pricing data at FAR [15.403-4\(a\)\(1\)](#).

(End of clause)

52.216-19 ORDER LIMITATIONS (OCT 1995)

(a) Minimum order. When the Government requires supplies or services covered by this contract in an amount of less than **\$100,000.00**, the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.

(b) Maximum order. The Contractor is not obligated to honor -

(1) Any order for a single item in excess of **\$10,000,000.00**;

(2) Any order for a combination of items in excess of **\$10,000,000.00**; or

(3) A series of orders from the same ordering office within **14 months** that together call for quantities exceeding the limitation in paragraph (b) (1) or (2) of this section.

(c) If this is a requirements contract (i.e., includes the Requirements clause at subsection 52.216-

21 of the Federal Acquisition Regulation (FAR)), the Government is not required to order a part of any one requirement from the Contractor if that requirement exceeds the maximum-order limitations in paragraph (b) of this section.

(d) Notwithstanding paragraphs (b) and (c) of this section, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within **seven (7)** days after issuance, with written notice stating the Contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

(End of clause)

52.216-22 INDEFINITE QUANTITY. (OCT 1995)

(a) This is an indefinite-quantity contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not purchased by this contract.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum". The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum".

(c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after **the completion date of the final task order**.

(End of clause)

52.219-4 NOTICE OF PRICE EVALUATION PREFERENCE FOR HUBZONE SMALL BUSINESS CONCERNS (OCT 2014)

(a) Definitions. See 13 CFR 125.6(e) for definitions of terms used in paragraph (d).

(b) Evaluation preference. (1) Offers will be evaluated by adding a factor of 10 percent to the price of all offers, except--

(i) Offers from HUBZone small business concerns that have not waived the evaluation preference; and

(ii) Otherwise successful offers from small business concerns.

(2) The factor of 10 percent shall be applied on a line item basis or to any group of items on which award may be made. Other evaluation factors described in the solicitation shall be applied before application of the factor.

(3) When the two highest rated offerors are a HUBZone small business concern and a large business, and the evaluated offer of the HUBZone small business concern is equal to the evaluated offer of the large business after considering the price evaluation preference, award will be made to the HUBZone small business concern.

(c) Waiver of evaluation preference. A HUBZone small business concern may elect to waive the evaluation preference, in which case the factor will be added to its offer for evaluation purposes. The agreements in paragraphs (d) and (e) of this clause do not apply if the offeror has waived the evaluation preference.

___ Offeror elects to waive the evaluation preference.

(d) Agreement. A HUBZone small business concern agrees that in the performance of the contract, in the case of a contract for

(1) Services (except construction), at least 50 percent of the cost of personnel for contract performance will be spent for employees of the concern or employees of other HUBZone small business concerns;

(2) Supplies (other than procurement from a nonmanufacturer of such supplies), at least 50 percent of the cost of manufacturing, excluding the cost of materials, will be performed by the concern or other HUBZone small business concerns;

(3) General construction. (i) At least 15 percent of the cost of contract performance to be incurred for personnel will be spent on the prime contractor's employees;

(ii) At least 50 percent of the cost of the contract performance to be incurred for personnel will be spent on the prime contractor's employees or on a combination of the prime contractor's employees and employees of HUBZone small business concern subcontractors;

(iii) No more than 50 percent of the cost of contract performance to be incurred for personnel will be subcontracted to concerns that are not HUBZone small business concerns; or

- (4) Construction by special trade contractors. (i) At least 25 percent of the cost of contract performance to be incurred for personnel will be spent on the prime contractor's employees;
- (ii) At least 50 percent of the cost of the contract performance to be incurred for personnel will be spent on the prime contractor's employees or on a combination of the prime contractor's employees and employees of HUBZone small business concern subcontractors;
- (iii) No more than 50 percent of the cost of contract performance to be incurred for personnel will be subcontracted to concerns that are not HUBZone small business concerns.
- (e) A HUBZone joint venture agrees that the aggregate of the HUBZone small business concerns to the joint venture, not each concern separately, will perform the applicable percentage of work requirements.
- (f)(1) When the total value of the contract exceeds \$25,000, a HUBZone small business concern nonmanufacturer agrees to furnish in performing this contract only end items manufactured or produced by HUBZone small business concern manufacturers.
- (2) When the total value of the contract is equal to or less than \$25,000, a HUBZone small business concern nonmanufacturer may provide end items manufactured by other than a HUBZone small business concern manufacturer provided the end items are produced or manufactured in the United States.
- (3) Paragraphs (f)(1) and (f)(2) of this section do not apply in connection with construction or service contracts.
- (g) Notice. The HUBZone small business offeror acknowledges that a prospective HUBZone awardee must be a HUBZone small business concern at the time of award of this contract. The HUBZone offeror shall provide the Contracting Officer a copy of the notice required by 13 CFR 126.501 if material changes occur before contract award that could affect its HUBZone eligibility. If the apparently successful HUBZone offeror is not a HUBZone small business concern at the time of award of this contract, the Contracting Officer will proceed to award to the next otherwise successful HUBZone small business concern or other offeror.

(End of clause)

52.219-8 UTILIZATION OF SMALL BUSINESS CONCERNS (NOV 2016)

(a) Definitions. As used in this contract--

HUBZone small business concern means a small business concern, certified by the Small Business Administration, that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a service-disabled veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

Small business concern means a small business as defined pursuant to Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto.

Small disadvantaged business concern, consistent with 13 CFR 124.1002, means a small business concern under the size standard applicable to the acquisition, that--

(1) Is at least 51 percent unconditionally and directly owned (as defined at 13 CFR 124.105) by--

(i) One or more socially disadvantaged (as defined at 13 CFR 124.103) and economically disadvantaged (as defined at 13 CFR 124.104) individuals who are citizens of the United States; and

(ii) Each individual claiming economic disadvantage has a net worth not exceeding \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(2) The management and daily business operations of which are controlled (as defined at 13.CFR 124.106) by individuals, who meet the criteria in paragraphs (1)(i) and (ii) of this definition.

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

Women-owned small business concern means a small business concern--

(1) That is at least 51 percent owned by one or more women, or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(b) It is the policy of the United States that small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns shall have the maximum practicable opportunity to participate in performing contracts let by any Federal agency, including contracts and subcontracts for subsystems, assemblies, components, and related services for major systems. It is further the policy of the United States that its prime contractors establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts with small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns.

(c) The Contractor hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with efficient contract performance. The Contractor further agrees to cooperate in any studies or surveys as may be conducted by the United States Small Business Administration or the awarding agency of the United States as may be necessary to determine the extent of the Contractor's compliance with this clause.

(d)(1) The Contractor may accept a subcontractor's written representations of its size and socioeconomic status as a small business, small disadvantaged business, veteran-owned small business, service-disabled veteran-owned small business, or a women-owned small business if the subcontractor represents that the size and socioeconomic status representations with its offer are current, accurate, and complete as of the date of the offer for the subcontract.

(2) The Contractor may accept a subcontractor's representations of its size and socioeconomic status as a small business, small disadvantaged business, veteran-owned small business, service-disabled veteran-owned small business, or a women-owned small business in the System for Award Management (SAM) if--

(i) The subcontractor is registered in SAM; and

(ii) The subcontractor represents that the size and socioeconomic status representations made in SAM are current, accurate and complete as of the date of the offer for the subcontract.

(3) The Contractor may not require the use of SAM for the purposes of representing size or socioeconomic status in connection with a subcontract.

(4) In accordance with 13 CFR 121.411, 124.1015, 125.29, 126.900, and 127.700, a contractor acting in good faith is not liable for misrepresentations made by its subcontractors regarding the subcontractor's size or socioeconomic status.

(5) The Contractor shall confirm that a subcontractor representing itself as a HUBZone small business concern is certified by SBA as a HUBZone small business concern by accessing the

System for Award Management database or by contacting the SBA. Options for contacting the SBA include--

(i) HUBZone small business database search application Web page at http://dsbs.sba.gov/dsbs/search/dsp_searchhubzone.cfm; or <http://www.sba.gov/hubzone>;

(ii) In writing to the Director/HUB, U.S. Small Business Administration, 409 3rd Street, SW., Washington DC 20416; or

(iii) The SBA HUBZone Help Desk at hubzone@sba.gov.

(End of clause)

52.219-16 LIQUIDATED DAMAGES-SUBCONTRACTING PLAN (JAN 1999)

(a) Failure to make a good faith effort to comply with the subcontracting plan, as used in this clause, means a willful or intentional failure to perform in accordance with the requirements of the subcontracting plan approved under the clause in this contract entitled "Small Business Subcontracting Plan," or willful or intentional action to frustrate the plan.

(b) Performance shall be measured by applying the percentage goals to the total actual subcontracting dollars or, if a commercial plan is involved, to the pro rata share of actual subcontracting dollars attributable to Government contracts covered by the commercial plan. If, at contract completion or, in the case of a commercial plan, at the close of the fiscal year for which the plan is applicable, the Contractor has failed to meet its subcontracting goals and the Contracting Officer decides in accordance with paragraph (c) of this clause that the Contractor failed to make a good faith effort to comply with its subcontracting plan, established in accordance with the clause in this contract entitled "Small Business Subcontracting Plan," the Contractor shall pay the Government liquidated damages in an amount stated. The amount of probable damages attributable to the Contractor's failure to comply shall be an amount equal to the actual dollar amount by which the Contractor failed to achieve each subcontract goal.

(c) Before the Contracting Officer makes a final decision that the Contractor has failed to make such good faith effort, the Contracting Officer shall give the Contractor written notice specifying the failure and permitting the Contractor to demonstrate what good faith efforts have been made and to discuss the matter. Failure to respond to the notice may be taken as an admission that no valid explanation exists. If, after consideration of all the pertinent data, the Contracting Officer finds that the Contractor failed to make a good faith effort to comply with the subcontracting plan, the Contracting Officer shall issue a final decision to that effect and require that the Contractor pay the Government liquidated damages as provided in paragraph (b) of this clause.

(d) With respect to commercial plans, the Contracting Officer who approved the plan will perform the functions of the Contracting Officer under this clause on behalf of all agencies with contracts covered by the commercial plan.

(e) The Contractor shall have the right of appeal, under the clause in this contract entitled Disputes, from any final decision of the Contracting Officer.

(f) Liquidated damages shall be in addition to any other remedies that the Government may have.

(End of clause)

52.219-28 POST-AWARD SMALL BUSINESS PROGRAM REREPRESENTATION (JULY 2013)

(a) Definitions. As used in this clause--

Long-term contract means a contract of more than five years in duration, including options. However, the term does not include contracts that exceed five years in duration because the period of performance has been extended for a cumulative period not to exceed six months under the clause at 52.217-8, Option to Extend Services, or other appropriate authority.

Small business concern means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR part 121 and the size standard in paragraph (c) of this clause. Such a concern is "not dominant in its field of operation" when it does not exercise a controlling or major influence on a national basis in a kind of business activity in which a number of business concerns are primarily engaged. In determining whether dominance exists, consideration shall be given to all appropriate factors, including volume of business, number of employees, financial resources, competitive status or position, ownership or control of materials, processes, patents, license agreements, facilities, sales territory, and nature of business activity.

(b) If the Contractor represented that it was a small business concern prior to award of this contract, the Contractor shall rerepresent its size status according to paragraph (e) of this clause or, if applicable, paragraph (g) of this clause, upon the occurrence of any of the following:

(1) Within 30 days after execution of a novation agreement or within 30 days after modification of the contract to include this clause, if the novation agreement was executed prior to inclusion of this clause in the contract.

(2) Within 30 days after a merger or acquisition that does not require a novation or within 30 days after modification of the contract to include this clause, if the merger or acquisition occurred prior to inclusion of this clause in the contract.

(3) For long-term contracts--

(i) Within 60 to 120 days prior to the end of the fifth year of the contract; and

(ii) Within 60 to 120 days prior to the date specified in the contract for exercising any option thereafter.

(c) The Contractor shall rerepresent its size status in accordance with the size standard in effect at the time of this rerepresentation that corresponds to the North American Industry Classification System (NAICS) code assigned to this contract. The small business size standard corresponding to this NAICS code can be found at <http://www.sba.gov/content/table-small-business-size-standards>.

(d) The small business size standard for a Contractor providing a product which it does not manufacture itself, for a contract other than a construction or service contract, is 500 employees.

(e) Except as provided in paragraph (g) of this clause, the Contractor shall make the representation required by paragraph (b) of this clause by validating or updating all its representations in the Representations and Certifications section of the System for Award Management (SAM) and its other data in SAM, as necessary, to ensure that they reflect the Contractor's current status. The Contractor shall notify the contracting office in writing within the timeframes specified in paragraph (b) of this clause that the data have been validated or updated, and provide the date of the validation or update.

(f) If the Contractor represented that it was other than a small business concern prior to award of this contract, the Contractor may, but is not required to, take the actions required by paragraphs (e) or (g) of this clause.

(g) If the Contractor does not have representations and certifications in SAM, or does not have a representation in SAM for the NAICS code applicable to this contract, the Contractor is required to complete the following rerepresentation and submit it to the contracting office, along with the contract number and the date on which the rerepresentation was completed:

The Contractor represents that it () is, () is not a small business concern under NAICS Code 237990 assigned to the resultant contract of solicitation number W9127819B0001.

(Contractor to sign and date and insert authorized signer's name and title).

(End of clause)

52.222-1 NOTICE TO THE GOVERNMENT OF LABOR DISPUTES (FEB 1997)

If the Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this contract, the Contractor shall immediately give notice, including all relevant information, to the Contracting Officer.

(End of clause)

52.222-3 CONVICT LABOR (JUN 2003)

(a) Except as provided in paragraph (b) of this clause, the Contractor shall not employ in the performance of this contract any person undergoing a sentence of imprisonment imposed by any court of a State, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, or the U.S. Virgin Islands.

(b) The Contractor is not prohibited from employing persons--

(1) On parole or probation to work at paid employment during the term of their sentence;

(2) Who have been pardoned or who have served their terms; or

(3) Confined for violation of the laws of any of the States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, or the U.S. Virgin Islands who are authorized to work at paid employment in the community under the laws of such jurisdiction, if--

(i) The worker is paid or is in an approved work training program on a voluntary basis;

(ii) Representatives of local union central bodies or similar labor union organizations have been consulted;

(iii) Such paid employment will not result in the displacement of employed workers, or be applied in skills, crafts, or trades in which there is a surplus of available gainful labor in the locality, or impair existing contracts for services;

(iv) The rates of pay and other conditions of employment will not be less than those paid or provided for work of a similar nature in the locality in which the work is being performed; and

(v) The Attorney General of the United States has certified that the work-release laws or **regulations** of the jurisdiction involved are in conformity with the requirements of Executive Order 11755, as amended by Executive Orders 12608 and 12943.

(End of clause)

52.222-4 CONTRACT WORK HOURS AND SAFETY STANDARDS - OVERTIME
COMPENSATION. (MAY 2014)

(a) Overtime requirements. No Contractor or subcontractor employing laborers or mechanics (see Federal Acquisition Regulation 22.300) shall require or permit them to work over 40 hours in any workweek unless they are paid at least 1 and 1/2 times the basic rate of pay for each hour worked over 40 hours.

(b) Violation; liability for unpaid wages; liquidated damages. The responsible Contractor and subcontractor are liable for unpaid wages if they violate the terms in paragraph (a) of this clause.

In addition, the Contractor and subcontractor are liable for liquidated damages payable to the Government. The Contracting Officer will assess liquidated damages at the rate of \$10 per affected employee for each calendar day on which the employer required or permitted the employee to work in excess of the standard workweek of 40 hours without paying overtime wages required by the Contract Work Hours and Safety Standards statute (found at 40 U.S.C. chapter 37).

(c) Withholding for unpaid wages and liquidated damages. The Contracting Officer will withhold from payments due under the contract sufficient funds required to satisfy any Contractor or subcontractor liabilities for unpaid wages and liquidated damages. If amounts withheld under the contract are insufficient to satisfy Contractor or subcontractor liabilities, the Contracting Officer will withhold payments from other Federal or Federally assisted contracts held by the same Contractor that are subject to the Contract Work Hours and Safety Standards statute.

(d) Payrolls and basic records.

(1) The Contractor and its subcontractors shall maintain payrolls and basic payroll records for all laborers and mechanics working on the contract during the contract and shall make them available to the Government until 3 years after contract completion. The records shall contain the name and address of each employee, social security number, labor classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. The records need not duplicate those required for construction work by Department of Labor regulations at 29 CFR 5.5(a)(3) implementing the Construction Wage Rate Requirements statute.

(2) The Contractor and its subcontractors shall allow authorized representatives of the Contracting Officer or the Department of Labor to inspect, copy, or transcribe records maintained under paragraph (d)(1) of this clause. The Contractor or subcontractor also shall allow authorized representatives of the Contracting Officer or Department of Labor to interview employees in the workplace during working hours.

(e) Subcontracts. The Contractor shall insert the provisions set forth in paragraphs (a) through (d) of this clause in subcontracts that may require or involve the employment of laborers and mechanics and require subcontractors to include these provisions in any such lower tier subcontracts. The Contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the provisions set forth in paragraphs (a) through (d) of this clause.

(End of clause)

52.222-6 CONSTRUCTION WAGE RATE REQUIREMENTS (MAY 2014)

(a) Definition.—“Site of the work”—

(1) Means—

(i) *The primary site of the work.* The physical place or places where the construction called for in the contract will remain when work on it is completed; and

(ii) *The secondary site of the work, if any.* Any other site where a significant portion of the building or work is constructed, provided that such site is—

(A) Located in the United States; and

(B) Established specifically for the performance of the contract or project;

(2) Except as provided in paragraph (3) of this definition, includes any fabrication plants, mobile factories, batch plants, borrow pits, job headquarters, tool yards, etc., provided—

(i) They are dedicated exclusively, or nearly so, to performance of the contract or project; and

(ii) They are adjacent or virtually adjacent to the “primary site of the work” as defined in paragraph (a)(1)(i), or the “secondary site of the work” as defined in paragraph (a)(1)(ii) of this definition;

(3) Does not include permanent home offices, branch plant establishments, fabrication plants, or tool yards of a Contractor or subcontractor whose locations and continuance in operation are determined wholly without regard to a particular Federal contract or project. In addition, fabrication plants, batch plants, borrow pits, job headquarters, yards, etc., of a commercial or material supplier which are established by a supplier of materials for the project before opening of bids and not on the Project site, are not included in the “site of the work.” Such permanent, previously established facilities are not a part of the “site of the work” even if the operations for a period of time may be dedicated exclusively or nearly so, to the performance of a contract.

(b)(1) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, or as may be incorporated for a secondary site of the work, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Any wage determination incorporated for a secondary site of the work shall be effective from the first day on which work under the contract was performed at that site and shall be incorporated without any adjustment in contract price or estimated cost. Laborers employed by the construction Contractor or construction subcontractor that are transporting portions of the building or work between the secondary site of the work and the primary site of the work shall be paid in accordance with the wage determination applicable to the primary site of the work.

(2) Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Construction Wage Rate Requirements statute on behalf of laborers or mechanics

are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (e) of this clause; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such period.

(3) Such laborers and mechanics shall be paid not less than the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in the clause entitled Apprentices and Trainees. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

(4) The wage determination (including any additional classifications and wage rates conformed under paragraph (c) of this clause) and the Construction Wage Rate Requirements statute poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the primary site of the work and the secondary site of the work, if any, in a prominent and accessible place where it can be easily seen by the workers.

(c)(1) The Contracting Officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination.

(ii) The classification is utilized in the area by the construction industry.

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits, where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the:

Wage and Hour Division
Employment Standards Administration
U.S. Department of Labor
Washington, DC 20210

The Administrator or an authorized representative will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(3) In the event the Contractor, the laborers or mechanics to be employed in the classification, or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator of the Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits, where appropriate) determined pursuant to paragraphs (c)(2) and (c)(3) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(d) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(e) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided, That the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Construction Wage Rate Requirements statute have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(End of clause)

52.222-7 WITHHOLDING OF FUNDS (MAY 2014)

The Contracting Officer shall, upon his or her own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same Prime Contractor, or any other Federally assisted contract subject to Construction Wage Rate Requirements statute prevailing wage requirements, which is held by the same Prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(End of clause)

52.222-8 PAYROLLS AND BASIC RECORDS (MAY 2014)

(a) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of 3 years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) (Construction Wage Rate Requirement statute)), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found, under paragraph (d) of the clause entitled Construction Wage Rate Requirements, that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B), the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(b)(1) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under paragraph(a) of this clause, except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be obtained from the U.S. Department of Labor Wage and Hour Division website at <http://www.dol.gov/whd/forms/wh347.pdf>. The Prime Contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the Contracting Officer, the Contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a Prime Contractor to require a subcontractor to provide addresses and social security numbers to the Prime Contractor for its own records, without weekly submission to the Contracting Officer.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify--

- (i) That the payroll for the payroll period contains the information required to be maintained under paragraph (a) of this clause and that such information is correct and complete;
 - (ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR Part 3; and
 - (iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph (b)(2) of this clause.
- (4) The falsification of any of the certifications in this clause may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.
- (c) The Contractor or subcontractor shall make the records required under paragraph (a) of this clause available for inspection, copying, or transcription by the Contracting Officer or authorized representatives of the Contracting Officer or the Department of Labor. The Contractor or subcontractor shall permit the Contracting Officer or representatives of the Contracting Officer or the Department of Labor to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit required records or to make them available, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(End of clause)

52.222-9 APPRENTICES AND TRAINEES (JUL 2005)

- (a) Apprentices. (1) An apprentice will be permitted to work at less than the predetermined rate for the work performed when employed--
- (i) Pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer, and Labor Services (OATELS) or with a State Apprenticeship Agency recognized by the OATELS; or

(ii) In the first 90 days of probationary employment as an apprentice in such an apprenticeship program, even though not individually registered in the program, if certified by the OATELS or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program.

(3) Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph (a)(1) of this clause, shall be paid not less than the applicable wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) Where a Contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination.

(5) Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(6) In the event OATELS, or a State Apprenticeship Agency recognized by OATELS, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(b) Trainees.

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer, and Labor Services (OATELS). The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by OATELS.

(2) Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the OATELS shall be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed.

(3) In the event OATELS withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(c) Equal employment opportunity. The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

(End of clause)

52.222-10 COMPLIANCE WITH COPELAND ACT REQUIREMENTS (FEB 1988)

The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.

(End of clause)

52.222-11 SUBCONTRACTS (LABOR STANDARDS) (MAY 2014)

(a) Definition. Construction, alteration or repair, as used in this clause, means all types of work done by laborers and mechanics employed by the construction Contractor or construction subcontractor on a particular building or work at the site thereof, including without limitation--

(1) Altering, remodeling, installation (if appropriate) on the site of the work of items fabricated off-site;

(2) Painting and decorating;

(3) Manufacturing or furnishing of materials, articles, supplies, or equipment on the site of the building or work;

(4) Transportation of materials and supplies between the site of the work within the meaning of paragraphs (a)(1)(i) and (ii) of the "site of work" as defined in the FAR clause at 52.222-6, Construction Wage Rate Requirements of this contract, and a facility which is dedicated to the construction of the building or work and is deemed part of the site of the work within the meaning of paragraph (2) of the "site of work" definition; and

(5) Transportation of portions of the building or work between a secondary site where a significant portion of the building or work is constructed, which is part of the "site of work" definition in paragraph (a)(1)(ii) of the FAR clause at 52.222-6, Construction Wage Rate Requirements, and the physical place or places where the building or work will remain (paragraph (a)(1)(i) of the FAR clause at 52.222-6, in the "site of the work" definition).

(b) The Contractor shall insert in any subcontracts for construction, alterations and repairs within the United States the clauses entitled--

(1) Construction Wage Rate Requirements;

(2) Contract Work Hours and Safety Standards--Overtime Compensation (if the clause is included in this contract);

(3) Apprentices and Trainees;

(4) Payrolls and Basic Records;

(5) Compliance with Copeland Act Requirements;

(6) Withholding of Funds;

(7) Subcontracts (Labor Standards);

(8) Contract Termination--Debarment;

(9) Disputes Concerning Labor Standards;

(10) Compliance with Construction Wage Rate Requirements and Related Regulations; and

(11) Certification of Eligibility.

(c) The prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor performing construction within the United States with all the contract clauses cited in paragraph (b).

(d)(1) Within 14 days after award of the contract, the Contractor shall deliver to the Contracting Officer a completed Standard Form (SF) 1413, Statement and Acknowledgment, for each subcontract for construction within the United States, including the subcontractor's signed and

dated acknowledgment that the clauses set forth in paragraph (b) of this clause have been included in the subcontract.

(2) Within 14 days after the award of any subsequently awarded subcontract the Contractor shall deliver to the Contracting Officer an updated completed SF 1413 for such additional subcontract.

(e) The Contractor shall insert the substance of this clause, including this paragraph (e) in all subcontracts for construction within the United States.

(End of clause)

52.222-12 CONTRACT TERMINATION--DEBARMENT (MAY 2014)

A breach of the contract clauses entitled Construction Wage Rate Requirements, Contract Work Hours and Safety Standards--Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Subcontracts (Labor Standards), Compliance with Construction Wage Rate Requirements and Related Regulations, or Certification of Eligibility may be grounds for termination of the contract, and for debarment as a Contractor and subcontractor as provided in 29 CFR 5.12.

(End of clause)

52.222-13 COMPLIANCE WITH CONSTRUCTION WAGE RATE REQUIREMENTS AND RELATED REGULATIONS (MAY 2014)

All rulings and interpretations of the Construction Wage Rate Requirements and related statutes contained in 29 CFR parts 1, 3, and 5 are hereby incorporated by reference in this contract.

(End of clause)

52.222-14 DISPUTES CONCERNING LABOR STANDARDS (FEB 1988)

The United States Department of Labor has set forth in 29 CFR Parts 5, 6, and 7 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(End of clause)

52.222-15 CERTIFICATION OF ELIGIBILITY (MAY 2014)

(a) By entering into this contract, the Contractor certifies that neither it nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b)(2) or 29 CFR 5.12(a)(1).

(b) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b)(2) or 29 CFR 5.12(a)(1).

(c) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(End of clause)

52.222-21 PROHIBITION OF SEGREGATED FACILITIES (APR 2015)

(a) Definitions. As used in this clause--

Gender identity has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at www.dol.gov/ofccp/LGBT/LGBT_FAQs.html.

Segregated facilities means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

Sexual orientation has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at www.dol.gov/ofccp/LGBT/LGBT_FAQs.html.

(b) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Opportunity clause of this contract.

(End of clause)

52.222-26 EQUAL OPPORTUNITY (SEPT 2016)

(a) Definitions. As used in this clause--

Compensation means any payments made to, or on behalf of, an employee or offered to an applicant as remuneration for employment, including but not limited to salary, wages, overtime pay, shift differentials, bonuses, commissions, vacation and holiday pay, allowances, insurance and other benefits, stock options and awards, profit sharing, and retirement.

Compensation information means the amount and type of compensation provided to employees or offered to applicants, including, but not limited to, the desire of the Contractor to attract and retain a particular employee for the value the employee is perceived to add to the Contractor's profit or productivity; the availability of employees with like skills in the marketplace; market research about the worth of similar jobs in the relevant marketplace; job analysis, descriptions, and evaluations; salary and pay structures; salary surveys; labor union agreements; and Contractor decisions, statements and policies related to setting or altering employee compensation.

Essential job functions means the fundamental job duties of the employment position an individual holds. A job function may be considered essential if--

- (1) The access to compensation information is necessary in order to perform that function or another routinely assigned business task; or
- (2) The function or duties of the position include protecting and maintaining the privacy of employee personnel records, including compensation information.

Gender identity has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at www.dol.gov/ofccp/LGBT/LGBT_FAQs.html.

Sexual orientation has the meaning given by the Department of Labor's Office of Federal Contract Compliance Programs, and is found at www.dol.gov/ofccp/LGBT/LGBT_FAQs.html.

United States means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.

(b)(1) If, during any 12-month period (including the 12 months preceding the award of this contract), the Contractor has been or is awarded nonexempt Federal contracts and/or subcontracts that have an aggregate value in excess of \$10,000, the Contractor shall comply with this clause, except for work performed outside the United States by employees who were not recruited within the United States. Upon request, the Contractor shall provide information necessary to determine the applicability of this clause.

(2) If the Contractor is a religious corporation, association, educational institution, or society, the requirements of this clause do not apply with respect to the employment of individuals of a

particular religion to perform work connected with the carrying on of the Contractor's activities (41 CFR 60-1.5).

(c) (1) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. However, it shall not be a violation of this clause for the Contractor to extend a publicly announced preference in employment to Indians living on or near an Indian reservation, in connection with employment opportunities on or near an Indian reservation, as permitted by 41 CFR 60-1.5.

(2) The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. This shall include, but not be limited to, (i) employment, (ii) upgrading, (iii) demotion, (iv) transfer, (v) recruitment or recruitment advertising, (vi) layoff or termination, (vii) rates of pay or other forms of compensation, and (viii) selection for training, including apprenticeship.

(3) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer that explain this clause.

(4) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(5)(i) The Contractor shall not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This prohibition against discrimination does not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Contractor's legal duty to furnish information.

(ii) The Contractor shall disseminate the prohibition on discrimination in paragraph (c)(5)(i) of this clause, using language prescribed by the Director of the Office of Federal Contract Compliance Programs (OFCCP), to employees and applicants by--

(A) Incorporation into existing employee manuals or handbooks; and

(B) Electronic posting or by posting a copy of the provision in conspicuous places available to employees and applicants for employment.

(6) The Contractor shall send, to each labor union or representative of workers with which it has

a collective bargaining agreement or other contract or understanding, the notice to be provided by the Contracting Officer advising the labor union or workers' representative of the Contractor's commitments under this clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.

(7) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.

(8) The Contractor shall furnish to the contracting agency all information required by Executive Order 11246, as amended, and by the rules, regulations, and orders of the Secretary of Labor. The Contractor shall also file Standard Form 100 (EEO-1), or any successor form, as prescribed in 41 CFR part 60-1. Unless the Contractor has filed within the 12 months preceding the date of contract award, the Contractor shall, within 30 days after contract award, apply to either the regional Office of Federal Contract Compliance Programs (OFCCP) or the local office of the Equal Employment Opportunity Commission for the necessary forms.

(9) The Contractor shall permit access to its premises, during normal business hours, by the contracting agency or the OFCCP for the purpose of conducting on-site compliance evaluations and complaint investigations. The Contractor shall permit the Government to inspect and copy any books, accounts, records (including computerized records), and other material that may be relevant to the matter under investigation and pertinent to compliance with Executive Order 11246, as amended, and rules and regulations that implement the Executive Order.

(10) If the OFCCP determines that the Contractor is not in compliance with this clause or any rule, regulation, or order of the Secretary of Labor, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts, under the procedures authorized in Executive Order 11246, as amended. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in Executive Order 11246, as amended; in the rules, regulations, and orders of the Secretary of Labor; or as otherwise provided by law.

(11) The Contractor shall include the terms and conditions of this clause in every subcontract or purchase order that is not exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor.

(12) The Contractor shall take such action with respect to any subcontract or purchase order as the Director of OFCCP may direct as a means of enforcing these terms and conditions, including sanctions for noncompliance; provided, that if the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of any direction, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

(d) Notwithstanding any other clause in this contract, disputes relative to this clause will be governed by the procedures in 41 CFR part 60-1.

(End of clause)

52.222-27 AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION (APR 2015)

(a) Definitions. “Covered area” means the geographical area described in the solicitation for this contract.

“Deputy Assistant Secretary” means the Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, or a designee.

“Employer’s identification number” means the Federal Social Security number used on the employer’s quarterly Federal tax return, U.S. Treasury Department Form 941.

“Gender identity” has the meaning given by the Department of Labor’s Office of Federal Contract Compliance Programs, and is found at www.dol.gov/ofccp/LGBT/LGBT_FAQs.html .

“Minority” means --

(1) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

(2) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands);

(3) Black (all persons having origins in any of the black African racial groups not of Hispanic origin); and

(4) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race).

“Sexual orientation” has the meaning given by the Department of Labor’s Office of Federal Contract Compliance Programs, and is found at www.dol.gov/ofccp/LGBT/LGBT_FAQs.html .

(b) If the Contractor, or a subcontractor at any tier, subcontracts a portion of the work involving any construction trade, each such subcontract in excess of \$10,000 shall include this clause and the Notice containing the goals for minority and female participation stated in the solicitation for this contract.

(c) If the Contractor is participating in a Hometown Plan (41 CFR 60-4) approved by the U.S. Department of Labor in a covered area, either individually or through an association, its affirmative action obligations on all work in the plan area (including goals) shall comply with the plan for those trades that have unions participating in the plan. Contractors must be able to

demonstrate participation in, and compliance with, the provisions of the plan. Each Contractor or subcontractor participating in an approved plan is also required to comply with its obligations under the Equal Opportunity clause, and to make a good faith effort to achieve each goal under the plan in each trade in which it has employees. The overall good-faith performance by other Contractors or subcontractors toward a goal in an approved plan does not excuse any Contractor's or subcontractor's failure to make good-faith efforts to achieve the plan's goals.

(d) The Contractor shall implement the affirmative action procedures in subparagraphs (g)(1) through (16) of this clause. The goals stated in the solicitation for this contract are expressed as percentages of the total hours of employment and training of minority and female utilization that the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for the geographical area where that work is actually performed. The Contractor is expected to make substantially uniform progress toward its goals in each craft.

(e) Neither the terms and conditions of any collective bargaining agreement, nor the failure by a union with which the Contractor has a collective bargaining agreement, to refer minorities or women shall excuse the Contractor's obligations under this clause, Executive Order 11246, as amended, or the regulations thereunder.

(f) In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

(g) The Contractor shall take affirmative action to ensure equal employment opportunity. The evaluation of the Contractor's compliance with this clause shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and implement affirmative action steps at least as extensive as the following:

(1) Ensure a working environment free of harassment, intimidation, and coercion at all sites and in all facilities where the Contractor's employees are assigned to work. The Contractor, if possible, will assign two or more women to each construction project. The Contractor shall ensure that foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at these sites or facilities.

(2) Establish and maintain a current list of sources for minority and female recruitment. Provide written notification to minority and female recruitment sources and community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

(3) Establish and maintain a current file of the names, addresses, and telephone numbers of each

minority and female off-the-street applicant, referrals of minorities or females from unions, recruitment sources, or community organizations, and the action taken with respect to each individual. If an individual was sent to the union hiring hall for referral and not referred back to the Contractor by the union or, if referred back, not employed by the Contractor, this shall be documented in the file, along with whatever additional actions the Contractor may have taken.

(4) Immediately notify the Deputy Assistant Secretary when the union or unions with which the Contractor has a collective bargaining agreement has not referred back to the Contractor a minority or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

(5) Develop on-the-job training opportunities and/or participate in training programs for the area that expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under subparagraph (g)(2) of this clause.

(6) Disseminate the Contractor's equal employment policy by--

(i) Providing notice of the policy to unions and to training, recruitment, and outreach programs, and requesting their cooperation in assisting the Contractor in meeting its contract obligations;

(ii) Including the policy in any policy manual and in collective bargaining agreements;

(iii) Publicizing the policy in the company newspaper, annual report, etc.;

(iv) Reviewing the policy with all management personnel and with all minority and female employees at least once a year; and

(v) Posting the policy on bulletin boards accessible to employees at each location where construction work is performed.

(7) Review, at least annually, the Contractor's equal employment policy and affirmative action obligations with all employees having responsibility for hiring, assignment, layoff, termination, or other employment decisions. Conduct review of this policy with all on-site supervisory personnel before initiating construction work at a job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

(8) Disseminate the Contractor's equal employment policy externally by including it in any advertising in the news media, specifically including minority and female news media. Provide written notification to, and discuss this policy with, other Contractors and subcontractors with which the Contractor does or anticipates doing business.

(9) Direct recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students, and to minority and female

recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than 1 month before the date for acceptance of applications for apprenticeship or training by any recruitment source, send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

(10) Encourage present minority and female employees to recruit minority persons and women. Where reasonable, provide after-school, summer, and vacation employment to minority and female youth both on the site and in other areas of the Contractor's workforce.

(11) Validate all tests and other selection requirements where required under 41 CFR 60-3.

(12) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities. Encourage these employees to seek or to prepare for, through appropriate training, etc., opportunities for promotion.

(13) Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment-related activities to ensure that the Contractor's obligations under this contract are being carried out.

(14) Ensure that all facilities and company activities are nonsegregated except that separate or single-user rest rooms and necessary dressing or sleeping areas shall be provided to assure privacy between the sexes.

(15) Maintain a record of solicitations for subcontracts for minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

(16) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's equal employment policy and affirmative action obligations.

(h) The Contractor is encouraged to participate in voluntary associations that may assist in fulfilling one or more of the affirmative action obligations contained in subparagraphs (g)(1) through (16) of this clause. The efforts of a contractor association, joint contractor-union, contractor-community, or similar group of which the contractor is a member and participant may be asserted as fulfilling one or more of its obligations under subparagraphs (g)(1) through (16) of this clause, provided the Contractor--

(1) Actively participates in the group;

(2) Makes every effort to ensure that the group has a positive impact on the employment of minorities and women in the industry;

(3) Ensures that concrete benefits of the program are reflected in the Contractor's minority and female workforce participation;

(4) Makes a good-faith effort to meet its individual goals and timetables; and

(5) Can provide access to documentation that demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply is the Contractor's, and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

(i) A single goal for minorities and a separate single goal for women shall be established. The Contractor is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and nonminority. Consequently, the Contractor may be in violation of Executive Order 11246, as amended, if a particular group is employed in a substantially disparate manner.

(j) The Contractor shall not use goals or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

(k) The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts under Executive Order 11246, as amended.

(l) The Contractor shall carry out such sanctions and penalties for violation of this clause and of the Equal Opportunity clause, including suspension, termination, and cancellation of existing subcontracts, as may be imposed or ordered under Executive Order 11246, as amended, and its implementing regulations, by the OFCCP. Any failure to carry out these sanctions and penalties as ordered shall be a violation of this clause and Executive Order 11246, as amended.

(m) The Contractor in fulfilling its obligations under this clause shall implement affirmative action procedures at least as extensive as those prescribed in paragraph (g) of this clause, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of Executive Order 11246, as amended, the implementing regulations, or this clause, the Deputy Assistant Secretary shall take action as prescribed in 41 CFR 60-4.8.

(n) The Contractor shall designate a responsible official to--

(1) Monitor all employment-related activity to ensure that the Contractor's equal employment policy is being carried out;

(2) Submit reports as may be required by the Government; and

(3) Keep records that shall at least include for each employee the name, address, telephone number, construction trade, union affiliation (if any), employee identification number, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, separate records are not required to be maintained.

(o) Nothing contained herein shall be construed as a limitation upon the application of other laws that establish different standards of compliance or upon the requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

(End of clause)

52.222-35 EQUAL OPPORTUNITY FOR VETERANS (OCT 2015)

(a) Definitions. As used in this clause--

``Active duty wartime or campaign badge veteran," ``Armed Forces service medal veteran," ``disabled veteran," ``protected veteran," ``qualified disabled veteran," and ``recently separated veteran" have the meanings given at FAR 22.1301.

(b) Equal opportunity clause. The Contractor shall abide by the requirements of the equal opportunity clause at 41 CFR 60-300.5(a), as of March 24, 2014. This clause prohibits discrimination against qualified protected veterans, and requires affirmative action by the Contractor to employ and advance in employment qualified protected veterans.

(c) Subcontracts. The Contractor shall insert the terms of this clause in subcontracts of \$150,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor. The Contractor shall act as specified by the Director, Office of Federal Contract Compliance Programs, to enforce the terms, including action for noncompliance. Such necessary changes in language may be made as shall be appropriate to identify properly the parties and their undertakings.

(End of clause)

52.222-36 EQUAL OPPORTUNITY FOR WORKERS WITH DISABILITIES (JUL 2014)

(a) Equal opportunity clause. The Contractor shall abide by the requirements of the equal opportunity clause at 41 CFR 60-741.5(a), as of March 24, 2014. This clause prohibits discrimination against qualified individuals on the basis of disability, and requires affirmative action by the Contractor to employ and advance in employment qualified individuals with disabilities.

(b) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order in excess of \$15,000 unless exempted by rules, regulations, or orders of the Secretary, so that such provisions will be binding upon each subcontractor or vendor. The Contractor shall act as specified by the Director, Office of Federal Contract Compliance Programs of the U.S. Department of Labor, to enforce the terms, including action for noncompliance. Such necessary changes in language may be made as shall be appropriate to identify properly the parties and their undertakings.

(End of clause)

52.222-37 EMPLOYMENT REPORTS ON VETERANS (FEB 2016)

(a) Definitions. As used in this clause, “active duty wartime or campaign badge veteran,” “Armed Forces service medal veteran,” “disabled veteran,” “protected veteran,” and “recently separated veteran,” have the meanings given in FAR 22.1301.

(b) Unless the Contractor is a State or local government agency, the Contractor shall report at least annually, as required by the Secretary of Labor, on--

(1) The total number of employees in the contractor's workforce, by job category and hiring location, who are protected veterans (i.e., active duty wartime or campaign badge veterans, Armed Forces service medal veterans, disabled veterans, and recently separated veterans);

(2) The total number of new employees hired during the period covered by the report, and of the total, the number of protected veterans (i.e., active duty wartime or campaign badge veterans, Armed Forces service medal veterans, disabled veterans, and recently separated veterans); and

(3) The maximum number and minimum number of employees of the Contractor or subcontractor at each hiring location during the period covered by the report.

(c) The Contractor shall report the above items by filing the VETS-4212 “Federal Contractor Veterans’ Employment Report” (see “VETS-4212 Federal Contractor Reporting” and “Filing Your VETS-4212 Report” at <http://www.dol.gov/vets/vets4212.htm>).

(d) The Contractor shall file VETS-4212 Reports no later than September 30 of each year.

(e) The employment activity report required by paragraphs (b)(2) and (b)(3) of this clause shall reflect total new hires, and maximum and minimum number of employees, during the most recent 12-month period preceding the ending date selected for the report. Contractors may select an ending date--

(1) As of the end of any pay period between July 1 and August 31 of the year the report is due; or

(2) As of December 31, if the Contractor has prior written approval from the Equal Employment Opportunity Commission to do so for purposes of submitting the Employer Information Report EEO-1 (Standard Form 100).

(f) The number of veterans reported must be based on data known to the contractor when completing the VETS-4212. The contractor's knowledge of veterans status may be obtained in a variety of ways, including an invitation to applicants to self-identify (in accordance with 41 CFR 60-300.42), voluntary self-disclosure by employees, or actual knowledge of veteran status by the contractor. This paragraph does not relieve an employer of liability for discrimination under 38 U.S.C. 4212.

(g) The Contractor shall insert the terms of this clause in subcontracts of \$150,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor.

(End of Clause)

52.222-40 NOTIFICATION OF EMPLOYEE RIGHTS UNDER THE NATIONAL LABOR
RELATIONS ACT (DEC 2010)

(a) During the term of this contract, the Contractor shall post an employee notice, of such size and in such form, and containing such content as prescribed by the Secretary of Labor, in conspicuous places in and about its plants and offices where employees covered by the National Labor Relations Act engage in activities relating to the performance of the contract, including all places where notices to employees are customarily posted both physically and electronically, in the languages employees speak, in accordance with 29 CFR 471.2(d) and (f).

(1) Physical posting of the employee notice shall be in conspicuous places in and about the Contractor's plants and offices so that the notice is prominent and readily seen by employees who are covered by the National Labor Relations Act and engage in activities related to the performance of the contract.

(2) If the Contractor customarily posts notices to employees electronically, then the Contractor shall also post the required notice electronically by displaying prominently, on any Web site that is maintained by the Contractor and is customarily used for notices to employees about terms and conditions of employment, a link to the Department of Labor's Web site that contains the full text of the poster. The link to the Department's Web site, as referenced in (b)(3) of this section, must read, "Important Notice about Employee Rights to Organize and Bargain Collectively with Their Employers."

(b) This required employee notice, printed by the Department of Labor, may be--

(1) Obtained from the Division of Interpretations and Standards, Office of Labor-Management Standards, U.S. Department of Labor, 200 Constitution Avenue, NW., Room N-5609, Washington, DC 20210, (202) 693-0123, or from any field office of the Office of Labor-Management Standards or Office of Federal Contract Compliance Programs;

(2) Provided by the Federal contracting agency if requested;

(3) Downloaded from the Office of Labor-Management Standards Web site at <http://www.dol.gov/olms/regs/compliance/EO13496.htm>; or

(4) Reproduced and used as exact duplicate copies of the Department of Labor's official poster.

(c) The required text of the employee notice referred to in this clause is located at Appendix A, Subpart A, 29 CFR Part 471.

(d) The Contractor shall comply with all provisions of the employee notice and related rules, regulations, and orders of the Secretary of Labor.

(e) In the event that the Contractor does not comply with the requirements set forth in paragraphs (a) through (d) of this clause, this contract may be terminated or suspended in whole or in part, and the Contractor may be suspended or debarred in accordance with 29 CFR 471.14 and subpart 9.4. Such other sanctions or remedies may be imposed as are provided by 29 CFR part 471, which implements Executive Order 13496 or as otherwise provided by law.

(f) Subcontracts. (1) The Contractor shall include the substance of this clause, including this paragraph (f), in every subcontract that exceeds \$10,000 and will be performed wholly or partially in the United States, unless exempted by the rules, regulations, or orders of the Secretary of Labor issued pursuant to section 3 of Executive Order 13496 of January 30, 2009, so that such provisions will be binding upon each subcontractor.

(2) The Contractor shall not procure supplies or services in a way designed to avoid the applicability of Executive Order 13496 or this clause.

(3) The Contractor shall take such action with respect to any such subcontract as may be directed by the Secretary of Labor as a means of enforcing such provisions, including the imposition of sanctions for noncompliance.

(4) However, if the Contractor becomes involved in litigation with a subcontractor, or is threatened with such involvement, as a result of such direction, the Contractor may request the United States, through the Secretary of Labor, to enter into such litigation to protect the interests of the United States.

(End of clause)

52.222-50 COMBATING TRAFFICKING IN PERSONS (MAR 2015)

(a) Definitions. As used in this clause--

Agent means any individual, including a director, an officer, an employee, or an independent contractor, authorized to act on behalf of the organization.

Coercion means--

(1) Threats of serious harm to or physical restraint against any person;

(2) Any scheme, plan, or pattern intended to cause a person to believe that failure to perform an act would result in serious harm to or physical restraint against any person; or

(3) The abuse or threatened abuse of the legal process.

Commercially available off-the-shelf (COTS) item means--

(1) Any item of supply (including construction material) that is--

(i) A commercial item (as defined in paragraph (1) of the definition at FAR 2.101);

(ii) Sold in substantial quantities in the commercial marketplace; and

(iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4), such as agricultural products and petroleum products.

Commercial sex act means any sex act on account of which anything of value is given to or received by any person.

Debt bondage means the status or condition of a debtor arising from a pledge by the debtor of his or her personal services or of those of a person under his or her control as a security for debt, if the value of those services as reasonably assessed is not applied toward the liquidation of the debt or the length and nature of those services are not respectively limited and defined.

Employee means an employee of the Contractor directly engaged in the performance of work under the contract who has other than a minimal impact or involvement in contract performance.

Forced Labor means knowingly providing or obtaining the labor or services of a person--

(1) By threats of serious harm to, or physical restraint against, that person or another person;

(2) By means of any scheme, plan, or pattern intended to cause the person to believe that, if the person did not perform such labor or services, that person or another person would suffer serious harm or physical restraint; or

(3) By means of the abuse or threatened abuse of law or the legal process.

Involuntary servitude includes a condition of servitude induced by means of--

(1) Any scheme, plan, or pattern intended to cause a person to believe that, if the person did not enter into or continue in such conditions, that person or another person would suffer serious harm or physical restraint; or

(2) The abuse or threatened abuse of the legal process.

Severe forms of trafficking in persons means--

(1) Sex trafficking in which a commercial sex act is induced by force, fraud, or coercion, or in which the person induced to perform such act has not attained 18 years of age; or

(2) The recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud, or coercion for the purpose of subjection to involuntary servitude, peonage, debt bondage, or slavery.

Sex trafficking means the recruitment, harboring, transportation, provision, or obtaining of a person for the purpose of a commercial sex act.

Subcontract means any contract entered into by a subcontractor to furnish supplies or services for performance of a prime contract or a subcontract.

Subcontractor means any supplier, distributor, vendor, or firm that furnishes supplies or services to or for a prime contractor or another subcontractor.

United States means the 50 States, the District of Columbia, and outlying areas.

(b) Policy. The United States Government has adopted a policy prohibiting trafficking in persons including the trafficking-related activities of this clause. Contractors, contractor employees, and their agents shall not--

(1) Engage in severe forms of trafficking in persons during the period of performance of the contract;

(2) Procure commercial sex acts during the period of performance of the contract;

(3) Use forced labor in the performance of the contract;

(4) Destroy, conceal, confiscate, or otherwise deny access by an employee to the employee's identity or immigration documents, such as passports or drivers' licenses, regardless of issuing authority;

(5)(i) Use misleading or fraudulent practices during the recruitment of employees or offering of employment, such as failing to disclose, in a format and language accessible to the worker, basic information or making material misrepresentations during the recruitment of employees regarding the key terms and conditions of employment, including wages and fringe benefits, the location of work, the living conditions, housing and associated costs (if employer or agent provided or arranged), any significant cost to be charged to the employee, and, if applicable, the hazardous nature of the work;

(ii) Use recruiters that do not comply with local labor laws of the country in which the recruiting takes place;

(6) Charge employees recruitment fees;

(7)(i) Fail to provide return transportation or pay for the cost of return transportation upon the end of employment--

(A) For an employee who is not a national of the country in which the work is taking place and who was brought into that country for the purpose of working on a U.S. Government contract or subcontract (for portions of contracts performed outside the United States); or

(B) For an employee who is not a United States national and who was brought into the United States for the purpose of working on a U.S. Government contract or subcontract, if the payment of such costs is required under existing temporary worker programs or pursuant to a written agreement with the employee (for portions of contracts performed inside the United States); except that--

(ii) The requirements of paragraphs (b)(7)(i) of this clause shall not apply to an employee who is-

(A) Legally permitted to remain in the country of employment and who chooses to do so; or

(B) Exempted by an authorized official of the contracting agency from the requirement to provide return transportation or pay for the cost of return transportation;

(iii) The requirements of paragraph (b)(7)(i) of this clause are modified for a victim of trafficking in persons who is seeking victim services or legal redress in the country of employment, or for a witness in an enforcement action related to trafficking in persons. The contractor shall provide the return transportation or pay the cost of return transportation in a way that does not obstruct the victim services, legal redress, or witness activity. For example, the contractor shall not only offer return transportation to a witness at a time when the witness is still needed to testify. This paragraph does not apply when the exemptions at paragraph (b)(7)(ii) of this clause apply.

(8) Provide or arrange housing that fails to meet the host country housing and safety standards; or

(9) If required by law or contract, fail to provide an employment contract, recruitment agreement, or other required work document in writing. Such written work document shall be in a language the employee understands. If the employee must relocate to perform the work, the work document shall be provided to the employee at least five days prior to the employee relocating. The employee's work document shall include, but is not limited to, details about work description, wages, prohibition on charging recruitment fees, work location(s), living accommodations and associated costs, time off, roundtrip transportation arrangements, grievance process, and the content of applicable laws and regulations that prohibit trafficking in persons.

(c) Contractor requirements. The Contractor shall--

(1) Notify its employees and agents of--

(i) The United States Government's policy prohibiting trafficking in persons, described in paragraph (b) of this clause; and

(ii) The actions that will be taken against employees or agents for violations of this policy. Such actions for employees may include, but are not limited to, removal from the contract, reduction in benefits, or termination of employment; and

(2) Take appropriate action, up to and including termination, against employees, agents, or subcontractors that violate the policy in paragraph (b) of this clause.

(d) Notification. (1) The Contractor shall inform the Contracting Officer and the agency Inspector General immediately of--

(i) Any credible information it receives from any source (including host country law enforcement) that alleges a Contractor employee, subcontractor, subcontractor employee, or their agent has engaged in conduct that violates the policy in paragraph (b) of this clause (see also 18 U.S.C. 1351, Fraud in Foreign Labor Contracting, and 52.203-13(b)(3)(i)(A), if that clause is included in the solicitation or contract, which requires disclosure to the agency Office of the Inspector General when the Contractor has credible evidence of fraud); and

(ii) Any actions taken against a Contractor employee, subcontractor, subcontractor employee, or their agent pursuant to this clause.

(2) If the allegation may be associated with more than one contract, the Contractor shall inform the contracting officer for the contract with the highest dollar value.

(e) Remedies. In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraphs (c), (d), (g), (h), or (i) of this clause may result in-

(1) Requiring the Contractor to remove a Contractor employee or employees from the performance of the contract;

(2) Requiring the Contractor to terminate a subcontract;

(3) Suspension of contract payments until the Contractor has taken appropriate remedial action;

(4) Loss of award fee, consistent with the award fee plan, for the performance period in which the Government determined Contractor non-compliance;

(5) Declining to exercise available options under the contract;

(6) Termination of the contract for default or cause, in accordance with the termination clause of this contract; or

(7) Suspension or debarment.

(f) Mitigating and aggravating factors. When determining remedies, the Contracting Officer may consider the following:

(1) Mitigating factors. The Contractor had a Trafficking in Persons compliance plan or an awareness program at the time of the violation, was in compliance with the plan, and has taken appropriate remedial actions for the violation, that may include reparation to victims for such violations.

(2) Aggravating factors. The Contractor failed to abate an alleged violation or enforce the requirements of a compliance plan, when directed by the Contracting Officer to do so.

(g) Full cooperation. (1) The Contractor shall, at a minimum--

(i) Disclose to the agency Inspector General information sufficient to identify the nature and extent of an offense and the individuals responsible for the conduct;

(ii) Provide timely and complete responses to Government auditors' and investigators' requests for documents;

(iii) Cooperate fully in providing reasonable access to its facilities and staff (both inside and outside the U.S.) to allow contracting agencies and other responsible Federal agencies to conduct audits, investigations, or other actions to ascertain compliance with the Trafficking Victims Protection Act of 2000 (22 U.S.C. chapter 78), E.O. 13627, or any other applicable law or regulation establishing restrictions on trafficking in persons, the procurement of commercial sex acts, or the use of forced labor; and

(iv) Protect all employees suspected of being victims of or witnesses to prohibited activities, prior to returning to the country from which the employee was recruited, and shall not prevent or hinder the ability of these employees from cooperating fully with Government authorities.

(2) The requirement for full cooperation does not foreclose any Contractor rights arising in law, the FAR, or the terms of the contract. It does not--

(i) Require the Contractor to waive its attorney-client privilege or the protections afforded by the attorney work product doctrine;

(ii) Require any officer, director, owner, employee, or agent of the Contractor, including a sole proprietor, to waive his or her attorney client privilege or Fifth Amendment rights; or

(iii) Restrict the Contractor from--

(A) Conducting an internal investigation; or

(B) Defending a proceeding or dispute arising under the contract or related to a potential or disclosed violation.

(h) Compliance plan. (1) This paragraph (h) applies to any portion of the contract that--

(i) Is for supplies, other than commercially available off-the-shelf items, acquired outside the United States, or services to be performed outside the United States; and

(ii) Has an estimated value that exceeds \$500,000.

(2) The Contractor shall maintain a compliance plan during the performance of the contract that is appropriate--

(i) To the size and complexity of the contract; and

(ii) To the nature and scope of the activities to be performed for the Government, including the number of non-United States citizens expected to be employed and the risk that the contract or subcontract will involve services or supplies susceptible to trafficking in persons.

(3) Minimum requirements. The compliance plan must include, at a minimum, the following:

(i) An awareness program to inform contractor employees about the Government's policy prohibiting trafficking-related activities described in paragraph (b) of this clause, the activities prohibited, and the actions that will be taken against the employee for violations. Additional information about Trafficking in Persons and examples of awareness programs can be found at the Web site for the Department of State's Office to Monitor and Combat Trafficking in Persons at <http://www.state.gov/j/tip/>.

(ii) A process for employees to report, without fear of retaliation, activity inconsistent with the policy prohibiting trafficking in persons, including a means to make available to all employees the hotline phone number of the Global Human Trafficking Hotline at 1-844-888-FREE and its email address at help@befree.org.

(iii) A recruitment and wage plan that only permits the use of recruitment companies with trained employees, prohibits charging recruitment fees to the employee, and ensures that wages meet applicable host-country legal requirements or explains any variance.

(iv) A housing plan, if the Contractor or subcontractor intends to provide or arrange housing, that ensures that the housing meets host-country housing and safety standards.

(v) Procedures to prevent agents and subcontractors at any tier and at any dollar value from engaging in trafficking in persons (including activities in paragraph (b) of this clause) and to monitor, detect, and terminate any agents, subcontracts, or subcontractor employees that have engaged in such activities.

(4) Posting. (i) The Contractor shall post the relevant contents of the compliance plan, no later than the initiation of contract performance, at the workplace (unless the work is to be performed in the field or not in a fixed location) and on the Contractor's Web site (if one is maintained). If posting at the workplace or on the Web site is impracticable, the Contractor shall provide the relevant contents of the compliance plan to each worker in writing.

(ii) The Contractor shall provide the compliance plan to the Contracting Officer upon request.

(5) Certification. Annually after receiving an award, the Contractor shall submit a certification to the Contracting Officer that--

(i) It has implemented a compliance plan to prevent any prohibited activities identified at paragraph (b) of this clause and to monitor, detect, and terminate any agent, subcontract or subcontractor employee engaging in prohibited activities; and

(ii) After having conducted due diligence, either--

(A) To the best of the Contractor's knowledge and belief, neither it nor any of its agents, subcontractors, or their agents is engaged in any such activities; or

(B) If abuses relating to any of the prohibited activities identified in paragraph (b) of this clause have been found, the Contractor or subcontractor has taken the appropriate remedial and referral actions.

(i) Subcontracts. (1) The Contractor shall include the substance of this clause, including this paragraph (i), in all subcontracts and in all contracts with agents. The requirements in paragraph (h) of this clause apply only to any portion of the subcontract that--

(A) Is for supplies, other than commercially available off-the-shelf items, acquired outside the United States, or services to be performed outside the United States; and

(B) Has an estimated value that exceeds \$500,000.

(2) If any subcontractor is required by this clause to submit a certification, the Contractor shall require submission prior to the award of the subcontract and annually thereafter. The certification shall cover the items in paragraph (h)(5) of this clause.

(End of clause)

52.222-54 EMPLOYMENT ELIGIBILITY VERIFICATION (OCT 2015)

(a) Definitions. As used in this clause--Commercially available off-the-shelf (COTS) item—

(1) Means any item of supply that is--

(i) A commercial item (as defined in paragraph (1) of the definition at 2.101);

(ii) Sold in substantial quantities in the commercial marketplace; and

(iii) Offered to the Government, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4), such as agricultural products and petroleum products. Per 46 CFR 525.1(c)(2), "bulk cargo" means cargo that is loaded and carried in bulk onboard ship without mark or count, in a loose unpackaged form, having homogenous characteristics. Bulk cargo loaded into intermodal equipment, except LASH or Seabee barges, is subject to mark and count and, therefore, ceases to be bulk cargo.

Employee assigned to the contract means an employee who was hired after November 6, 1986 (after November 27, 2009, in the Commonwealth of the Northern Mariana Islands), who is directly performing work, in the United States, under a contract that is required to include the clause prescribed at 22.1803. An employee is not considered to be directly performing work under a contract if the employee--

- (1) Normally performs support work, such as indirect or overhead functions; and
- (2) Does not perform any substantial duties applicable to the contract.

Subcontract means any contract, as defined in 2.101, entered into by a subcontractor to furnish supplies or services for performance of a prime contract or a subcontract. It includes but is not limited to purchase orders, and changes and modifications to purchase orders.

Subcontractor means any supplier, distributor, vendor, or firm that furnishes supplies or services to or for a prime Contractor or another subcontractor.

United States, as defined in 8 U.S.C. 1101(a)(38), means the 50 States, the District of Columbia, Puerto Rico, Guam, the Commonwealth of the Northern Mariana Islands, and the U.S. Virgin Islands.

(b) Enrollment and verification requirements.

(1) If the Contractor is not enrolled as a Federal Contractor in E-Verify at time of contract award, the Contractor shall--

- (i) Enroll. Enroll as a Federal Contractor in the E-Verify program within 30 calendar days of contract award;
- (ii) Verify all new employees. Within 90 calendar days of enrollment in the E-Verify program, begin to use E-Verify to initiate verification of employment eligibility of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire (but see paragraph (b)(3) of this section); and
- (iii) Verify employees assigned to the contract. For each employee assigned to the contract, initiate verification within 90 calendar days after date of enrollment or within 30 calendar days of the employee's assignment to the contract, whichever date is later (but see paragraph (b)(4) of this section).

(2) If the Contractor is enrolled as a Federal Contractor in E-Verify at time of contract award, the Contractor shall use E-Verify to initiate verification of employment eligibility of--

(i) All new employees. (A) Enrolled 90 calendar days or more. The Contractor shall initiate verification of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire (but see paragraph (b)(3) of this section); or

(B) Enrolled less than 90 calendar days. Within 90 calendar days after enrollment as a Federal Contractor in E-Verify, the Contractor shall initiate verification of all new hires of the Contractor, who are working in the United States, whether or not assigned to the contract, within 3 business days after the date of hire (but see paragraph (b)(3) of this section); or

(ii) Employees assigned to the contract. For each employee assigned to the contract, the Contractor shall initiate verification within 90 calendar days after date of contract award or within 30 days after assignment to the contract, whichever date is later (but see paragraph (b)(4) of this section).

(3) If the Contractor is an institution of higher education (as defined at 20 U.S.C. 1001(a)); a State or local government or the government of a Federally recognized Indian tribe; or a surety performing under a takeover agreement entered into with a Federal agency pursuant to a performance bond, the Contractor may choose to verify only employees assigned to the contract, whether existing employees or new hires. The Contractor shall follow the applicable verification requirements at (b)(1) or (b)(2), respectively, except that any requirement for verification of new employees applies only to new employees assigned to the contract.

(4) Option to verify employment eligibility of all employees. The Contractor may elect to verify all existing employees hired after November 6, 1986 (after November 27, 2009, in the Commonwealth of the Northern Mariana Islands), rather than just those employees assigned to the contract. The Contractor shall initiate verification for each existing employee working in the United States who was hired after November 6, 1986 (after November 27, 2009, in the Commonwealth of the Northern Mariana Islands), within 180 calendar days of--

(i) Enrollment in the E-Verify program; or

(ii) Notification to E-Verify Operations of the Contractor's decision to exercise this option, using the contact information provided in the E-Verify program Memorandum of Understanding (MOU).

(5) The Contractor shall comply, for the period of performance of this contract, with the requirements of the E-Verify program MOU.

(i) The Department of Homeland Security (DHS) or the Social Security Administration (SSA) may terminate the Contractor's MOU and deny access to the E-Verify system in accordance with the terms of the MOU. In such case, the Contractor will be referred to a suspension or debarment official.

(ii) During the period between termination of the MOU and a decision by the suspension or debarment official whether to suspend or debar, the Contractor is excused from its obligations under paragraph (b) of this clause. If the suspension or debarment official determines not to suspend or debar the Contractor, then the Contractor must reenroll in E-Verify.

(c) Web site. Information on registration for and use of the E-Verify program can be obtained via the Internet at the Department of Homeland Security Web site: <http://www.dhs.gov/E-Verify>.

(d) Individuals previously verified. The Contractor is not required by this clause to perform additional employment verification using E-Verify for any employee--

(1) Whose employment eligibility was previously verified by the Contractor through the E-Verify program;

(2) Who has been granted and holds an active U.S. Government security clearance for access to confidential, secret, or top secret information in accordance with the National Industrial Security Program Operating Manual; or

(3) Who has undergone a completed background investigation and been issued credentials pursuant to Homeland Security Presidential Directive (HSPD)-12, Policy for a Common Identification Standard for Federal Employees and Contractors.

(e) Subcontracts. The Contractor shall include the requirements of this clause, including this paragraph (e) (appropriately modified for identification of the parties), in each subcontract that--

(1) Is for--(i) Commercial or noncommercial services (except for commercial services that are part of the purchase of a COTS item (or an item that would be a COTS item, but for minor modifications), performed by the COTS provider, and are normally provided for that COTS item); or

(ii) Construction;

(2) Has a value of more than \$3,500; and

(3) Includes work performed in the United States.

(End of clause)

52.222-55 MINIMUM WAGES UNDER EXECUTIVE ORDER 13658 (DEC 2015)

(a) Definitions. As used in this clause--

``United States" means the 50 states and the District of Columbia.

``Worker"--

(1) Means any person engaged in performing work on, or in connection with, a contract covered by Executive Order 13658, and --

(i) Whose wages under such contract are governed by the Fair Labor Standards Act (29 U.S.C. chapter 8), the Service Contract Labor Standards statute (41 U.S.C. chapter 67), or the Wage Rate Requirements (Construction) statute (40 U.S.C. chapter 31, subchapter IV);

(ii) Other than individuals employed in a bona fide executive, administrative, or professional capacity, as those terms are defined in 29 CFR part 541;

(iii) Regardless of the contractual relationship alleged to exist between the individual and the employer.

(2) Includes workers performing on, or in connection with, the contract whose wages are calculated pursuant to special certificates issued under 29 U.S.C. 214(c).

(3) Also includes any person working on, or in connection with, the contract and individually registered in a bona fide apprenticeship or training program registered with the Department of Labor's Employment and Training Administration, Office of Apprenticeship, or with a State Apprenticeship Agency recognized by the Office of Apprenticeship.

(b) Executive Order minimum wage rate. (1) The Contractor shall pay to workers, while performing in the United States, and performing on, or in connection with, this contract, a minimum hourly wage rate of \$10.10 per hour beginning January 1, 2015.

(2) The Contractor shall adjust the minimum wage paid, if necessary, beginning January 1, 2016, and annually thereafter, to meet the applicable annual E.O. minimum wage. The Administrator of the Department of Labor's Wage and Hour Division (the Administrator) will publish annual determinations in the Federal Register no later than 90 days before the effective date of the new E.O. minimum wage rate. The Administrator will also publish the applicable E.O. minimum wage on www.wdol.gov (or any successor Web site), and a general notice on all wage determinations issued under the Service Contract Labor Standards statute or the Wage Rate Requirements (Construction) statute, that will provide information on the E.O. minimum wage and how to obtain annual updates. The applicable published E.O. minimum wage is incorporated by reference into this contract.

(3)(i) The Contractor may request a price adjustment only after the effective date of the new annual E.O. minimum wage determination. Prices will be adjusted only for increased labor costs (including subcontractor labor costs) as a result of an increase in the annual E.O. minimum wage, and for associated labor costs (including those for subcontractors). Associated labor costs shall include increases or decreases that result from changes in social security and unemployment taxes and workers' compensation insurance, but will not otherwise include any amount for general and administrative costs, overhead, or profit.

(ii) Subcontractors may be entitled to adjustments due to the new minimum wage, pursuant to paragraph (b)(2). Contractors shall consider any subcontractor requests for such price adjustment.

(iii) The Contracting Officer will not adjust the contract price under this clause for any costs other than those identified in paragraph (b)(3)(i) of this clause, and will not provide duplicate price adjustments with any price adjustment under clauses implementing the Service Contract Labor Standards statute or the Wage Rate Requirements (Construction) statute.

(4) The Contractor warrants that the prices in this contract do not include allowance for any contingency to cover increased costs for which adjustment is provided under this clause.

(5) A pay period under this clause may not be longer than semi-monthly, but may be shorter to comply with any applicable law or other requirement under this contract establishing a shorter pay period. Workers shall be paid no later than one pay period following the end of the regular pay period in which such wages were earned or accrued.

(6) The Contractor shall pay, unconditionally to each worker, all wages due free and clear without subsequent rebate or kickback. The Contractor may make deductions that reduce a worker's wages below the E.O. minimum wage rate only if done in accordance with 29 CFR 10.23, Deductions.

(7) The Contractor shall not discharge any part of its minimum wage obligation under this clause by furnishing fringe benefits or, with respect to workers whose wages are governed by the Service Contract Labor Standards statute, the cash equivalent thereof.

(8) Nothing in this clause shall excuse the Contractor from compliance with any applicable Federal or State prevailing wage law or any applicable law or municipal ordinance establishing a minimum wage higher than the E.O. minimum wage. However, wage increases under such other laws or municipal ordinances are not subject to price adjustment under this subpart.

(9) The Contractor shall pay the E.O. minimum wage rate whenever it is higher than any applicable collective bargaining agreement(s) wage rate.

(10) The Contractor shall follow the policies and procedures in 29 CFR 10.24(b) and 10.28 for treatment of workers engaged in an occupation in which they customarily and regularly receive more than \$30 a month in tips.

(c)(1) This clause applies to workers as defined in paragraph (a). As provided in that definition--

(i) Workers are covered regardless of the contractual relationship alleged to exist between the contractor or subcontractor and the worker;

(ii) Workers with disabilities whose wages are calculated pursuant to special certificates issued under 29 U.S.C. 214(c) are covered; and

(iii) Workers who are registered in a bona fide apprenticeship program or training program registered with the Department of Labor's Employment and Training Administration, Office of Apprenticeship, or with a State Apprenticeship Agency recognized by the Office of Apprenticeship, are covered.

(2) This clause does not apply to--

(i) Fair Labor Standards Act (FLSA)-covered individuals performing in connection with contracts covered by the E.O., i.e. those individuals who perform duties necessary to the performance of the contract, but who are not directly engaged in performing the specific work called for by the contract, and who spend less than 20 percent of their hours worked in a particular workweek performing in connection with such contracts;

(ii) Individuals exempted from the minimum wage requirements of the FLSA under 29 U.S.C. 213(a) and 214(a) and (b), unless otherwise covered by the Service Contract Labor Standards statute, or the Wage Rate Requirements (Construction) statute. These individuals include but are not limited to--

(A) Learners, apprentices, or messengers whose wages are calculated pursuant to special certificates issued under 29 U.S.C. 214(a).

(B) Students whose wages are calculated pursuant to special certificates issued under 29 U.S.C. 214(b).

(C) Those employed in a bona fide executive, administrative, or professional capacity (29 U.S.C. 213(a)(1) and 29 CFR part 541).

(d) Notice. The Contractor shall notify all workers performing work on, or in connection with, this contract of the applicable E.O. minimum wage rate under this clause. With respect to workers covered by the Service Contract Labor Standards statute or the Wage Rate Requirements (Construction) statute, the Contractor may meet this requirement by posting, in a prominent and accessible place at the worksite, the applicable wage determination under those statutes. With respect to workers whose wages are governed by the FLSA, the Contractor shall post notice, utilizing the poster provided by the Administrator, which can be obtained at www.dol.gov/whd/govcontracts, in a prominent and accessible place at the worksite. Contractors that customarily post notices to workers electronically may post the notice electronically provided the electronic posting is displayed prominently on any Web site that is maintained by the contractor, whether external or internal, and customarily used for notices to workers about terms and conditions of employment.

(e) Payroll Records. (1) The Contractor shall make and maintain records, for three years after completion of the work, containing the following information for each worker:

(i) Name, address, and social security number;

(ii) The worker's occupation(s) or classification(s);

(iii) The rate or rates of wages paid;

(iv) The number of daily and weekly hours worked by each worker;

(v) Any deductions made; and

(vi) Total wages paid.

(2) The Contractor shall make records pursuant to paragraph (e)(1) of this clause available for inspection and transcription by authorized representatives of the Administrator. The Contractor shall also make such records available upon request of the Contracting Officer.

(3) The Contractor shall make a copy of the contract available, as applicable, for inspection or transcription by authorized representatives of the Administrator.

(4) Failure to comply with this paragraph (e) shall be a violation of 29 CFR 10.26 and this contract. Upon direction of the Administrator or upon the Contracting Officer's own action, payment shall be withheld until such time as the noncompliance is corrected.

(5) Nothing in this clause limits or otherwise modifies the Contractor's payroll and recordkeeping obligations, if any, under the Service Contract Labor Standards statute, the Wage Rate Requirements (Construction) statute, the Fair Labor Standards Act, or any other applicable law.

(f) Access. The Contractor shall permit authorized representatives of the Administrator to conduct investigations, including interviewing workers at the worksite during normal working hours.

(g) Withholding. The Contracting Officer, upon his or her own action or upon written request of the Administrator, will withhold funds or cause funds to be withheld, from the Contractor under this or any other Federal contract with the same Contractor, sufficient to pay workers the full amount of wages required by this clause.

(h) Disputes. Department of Labor has set forth in 29 CFR 10.51, Disputes concerning contractor compliance, the procedures for resolving disputes concerning a contractor's compliance with Department of Labor regulations at 29 CFR part 10. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. These disputes include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the Department of Labor, or the workers or their representatives.

(i) Antiretaliation. The Contractor shall not discharge or in any other manner discriminate against any worker because such worker has filed any complaint or instituted or caused to be instituted any proceeding under or related to compliance with the E.O. or this clause, or has testified or is about to testify in any such proceeding.

(j) Subcontractor compliance. The Contractor is responsible for subcontractor compliance with the requirements of this clause and may be held liable for unpaid wages due subcontractor workers.

(k) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (k) in all subcontracts, regardless of dollar value, that are subject to the Service Contract Labor Standards statute or the Wage Rate Requirements (Construction) statute, and are to be performed in whole or in part in the United States.

(End of clause)

52.222-62 PAID SICK LEAVE UNDER EXECUTIVE ORDER 13706 (JAN 2017)

(a) Definitions. As used in this clause (in accordance with 29 CFR 13.2)--

Child, domestic partner, and domestic violence have the meaning given in 29 CFR 13.2.

Employee--(1)(i) Means any person engaged in performing work on or in connection with a contract covered by Executive Order (E.O.) 13706; and

(A) Whose wages under such contract are governed by the Service Contract Labor Standards statute (41 U.S.C. chapter 67), the Wage Rate Requirements (Construction) statute (40 U.S.C. chapter 31, subchapter IV), or the Fair Labor Standards Act (29 U.S.C. chapter 8);

(B) Including employees who qualify for an exemption from the Fair Labor Standards Act's minimum wage and overtime provisions;

(C) Regardless of the contractual relationship alleged to exist between the individual and the employer; and

(ii) Includes any person performing work on or in connection with the contract and individually registered in a bona fide apprenticeship or training program registered with the Department of Labor's Employment and Training Administration, Office of Apprenticeship, or with a State Apprenticeship Agency recognized by the Office of Apprenticeship.

(2)(i) An employee performs ``on" a contract if the employee directly performs the specific services called for by the contract; and

(ii) An employee performs ``in connection with" a contract if the employee's work activities are necessary to the performance of a contract but are not the specific services called for by the contract.

Individual related by blood or affinity whose close association with the employee is the equivalent of a family relationship has the meaning given in 29 CFR 13.2.

Multiemployer plan means a plan to which more than one employer is required to contribute and which is maintained pursuant to one or more collective bargaining agreements between one or more employee organizations and more than one employer.

Paid sick leave means compensated absence from employment that is required by E.O. 13706 and 29 CFR part 13.

Parent, sexual assault, spouse, and stalking have the meaning given in 29 CFR 13.2.

United States means the 50 States and the District of Columbia.

(b) Executive Order 13706. (1) This contract is subject to E.O. 13706 and the regulations issued by the Secretary of Labor in 29 CFR part 13 pursuant to the E.O.

(2) If this contract is not performed wholly within the United States, this clause only applies with respect to that part of the contract that is performed within the United States.

(c) Paid sick leave. The Contractor shall--

(1) Permit each employee engaged in performing work on or in connection with this contract to earn not less than 1 hour of paid sick leave for every 30 hours worked;

(2) Allow accrual and use of paid sick leave as required by E.O. 13706 and 29 CFR part 13;

(3) Comply with the accrual, use, and other requirements set forth in 29 CFR 13.5 and 13.6, which are incorporated by reference in this contract;

(4) Provide paid sick leave to all employees when due free and clear and without subsequent deduction (except as otherwise provided by 29 CFR 13.24), rebate, or kickback on any account;

(5) Provide pay and benefits for paid sick leave used no later than one pay period following the end of the regular pay period in which the paid sick leave was taken; and

(6) Be responsible for the compliance by any subcontractor with the requirements of E.O. 13706, 29 CFR part 13, and this clause.

(d) Contractors may fulfill their obligations under E.O. 13706 and 29 CFR part 13 jointly with other contractors through a multiemployer plan, or may fulfill their obligations through an individual fund, plan, or program (see 29 CFR 13.8).

(e) Withholding. The Contracting Officer will, upon his or her own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this or any other Federal contract with the same Contractor, so much of the accrued payments or advances as may be considered necessary to pay employees the full amount owed to compensate for any violation of the requirements of E.O. 13706, 29 CFR part 13, or this clause, including--

(1) Any pay and/or benefits denied or lost by reason of the violation;

(2) Other actual monetary losses sustained as a direct result of the violation; and

(3) Liquidated damages.

(f) Payment suspension/contract termination/contractor debarment. (1) In the event of a failure to comply with E.O. 13706, 29 CFR part 13, or this clause, the contracting agency may, on its own action or after authorization or by direction of the Department of Labor and written notification to the Contractor take action to cause suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(2) Any failure to comply with the requirements of this clause may be grounds for termination for default or cause.

(3) A breach of the contract clause may be grounds for debarment as a contractor and subcontractor as provided in 29 CFR 13.52.

(g) The paid sick leave required by E.O. 13706, 29 CFR part 13, and this clause is in addition to the Contractor's obligations under the Service Contract Labor Standards statute and Wage Rate Requirements (Construction) statute, and the Contractor may not receive credit toward its prevailing wage or fringe benefit obligations under those Acts for any paid sick leave provided in satisfaction of the requirements of E.O. 13706 and 29 CFR part 13.

(h) Nothing in E.O. 13706 or 29 CFR part 13 shall excuse noncompliance with or supersede any applicable Federal or State law, any applicable law or municipal ordinance, or a collective bargaining agreement requiring greater paid sick leave or leave rights than those established under E.O. 13706 and 29 CFR part 13.

(i) Recordkeeping. (1) The Contractor shall make and maintain, for no less than three (3) years from the completion of the work on the contract, records containing the following information for each employee, which the Contractor shall make available upon request for inspection, copying, and transcription by authorized representatives of the Administrator of the Wage and Hour Division of the Department of Labor:

(i) Name, address, and social security number of each employee.

(ii) The employee's occupation(s) or classification(s).

(iii) The rate or rates of wages paid (including all pay and benefits provided).

(iv) The number of daily and weekly hours worked.

(v) Any deductions made.

- (vi) The total wages paid (including all pay and benefits provided) each pay period.
 - (vii) A copy of notifications to employees of the amount of paid sick leave the employee has accrued, as required under 29 CFR 13.5(a)(2).
 - (viii) A copy of employees' requests to use paid sick leave, if in writing, or, if not in writing, any other records reflecting such employee requests.
 - (ix) Dates and amounts of paid sick leave taken by employees (unless the Contractor's paid time off policy satisfies the requirements of E.O. 13706 and 29 CFR part 13 as described in 29 CFR 13.5(f)(5), leave shall be designated in records as paid sick leave pursuant to E.O. 13706).
 - (x) A copy of any written responses to employees' requests to use paid sick leave, including explanations for any denials of such requests, as required under 29 CFR 13.5(d)(3).
 - (xi) Any records reflecting the certification and documentation the Contractor may require an employee to provide under 29 CFR 13.5(e), including copies of any certification or documentation provided by an employee.
 - (xii) Any other records showing any tracking of or calculations related to an employee's accrual or use of paid sick leave.
 - (xiii) The relevant contract.
 - (xiv) The regular pay and benefits provided to an employee for each use of paid sick leave.
 - (xv) Any financial payment made for unused paid sick leave upon a separation from employment intended, pursuant to 29 CFR 13.5(b)(5), to relieve the Contractor from the obligation to reinstate such paid sick leave as otherwise required by 29 CFR 13.5(b)(4).
- (2)(i) If the Contractor wishes to distinguish between an employee's covered and noncovered work, the Contractor shall keep records or other proof reflecting such distinctions. Only if the Contractor adequately segregates the employee's time will time spent on noncovered work be excluded from hours worked counted toward the accrual of paid sick leave. Similarly, only if the Contractor adequately segregates the employee's time may the Contractor properly refuse an employee's request to use paid sick leave on the ground that the employee was scheduled to perform noncovered work during the time he or she asked to use paid sick leave.
- (ii) If the Contractor estimates covered hours worked by an employee who performs work in connection with contracts covered by the E.O. pursuant to 29 CFR 13.5(a)(1)(i) or (iii), the Contractor shall keep records or other proof of the verifiable information on which such estimates are reasonably based. Only if the Contractor relies on an estimate that is reasonable and based on verifiable information will an employee's time spent in connection with noncovered work be excluded from hours worked counted toward the accrual of paid sick leave. If the Contractor estimates the amount of time an employee spends performing in connection with

contracts covered by the E.O., the Contractor shall permit the employee to use his or her paid sick leave during any work time for the Contractor.

(3) In the event the Contractor is not obligated by the Service Contract Labor Standards statute, the Wage Rate Requirements (Construction) statute, or the Fair Labor Standards Act to keep records of an employee's hours worked, such as because the employee is exempt from the Fair Labor Standards Act's minimum wage and overtime requirements, and the Contractor chooses to use the assumption permitted by 29 CFR 13.5(a)(1)(iii), the Contractor is excused from the requirement in paragraph (i)(1)(iv) of this clause and 29 CFR 13.25(a)(4) to keep records of the employee's number of daily and weekly hours worked.

(4)(i) Records relating to medical histories or domestic violence, sexual assault, or stalking, created for purposes of E.O. 13706, whether of an employee or an employee's child, parent, spouse, domestic partner, or other individual related by blood or affinity whose close association with the employee is the equivalent of a family relationship, shall be maintained as confidential records in separate files/records from the usual personnel files.

(ii) If the confidentiality requirements of the Genetic Information Nondiscrimination Act of 2008 (GINA), section 503 of the Rehabilitation Act of 1973, and/or the Americans with Disabilities Act (ADA) apply to records or documents created to comply with the recordkeeping requirements in this contract clause, the records and documents shall also be maintained in compliance with the confidentiality requirements of the GINA, section 503 of the Rehabilitation Act of 1973, and/or ADA as described in 29 CFR 1635.9, 41 CFR 60-741.23(d), and 29 CFR 1630.14(c)(1), respectively.

(iii) The Contractor shall not disclose any documentation used to verify the need to use 3 or more consecutive days of paid sick leave for the purposes listed in 29 CFR 13.5(c)(1)(iv) (as described in 29 CFR 13.5(e)(1)(ii)) and shall maintain confidentiality about any domestic abuse, sexual assault, or stalking, unless the employee consents or when disclosure is required by law.

(5) The Contractor shall permit authorized representatives of the Wage and Hour Division to conduct interviews with employees at the worksite during normal working hours.

(6) Nothing in this contract clause limits or otherwise modifies the Contractor's recordkeeping obligations, if any, under the Service Contract Labor Standards statute, the Wage Rate Requirements (Construction) statute, the Fair Labor Standards Act, the Family and Medical Leave Act, E.O. 13658, their respective implementing regulations, or any other applicable law.

(j) Interference/discrimination.

(1) The Contractor shall not in any manner interfere with an employee's accrual or use of paid sick leave as required by E.O. 13706 or 29 CFR part 13. Interference includes, but is not limited to--

(i) Miscalculating the amount of paid sick leave an employee has accrued;

- (ii) Denying or unreasonably delaying a response to a proper request to use paid sick leave;
 - (iii) Discouraging an employee from using paid sick leave;
 - (iv) Reducing an employee's accrued paid sick leave by more than the amount of such leave used;
 - (v) Transferring an employee to work on contracts not covered by the E.O. to prevent the accrual or use of paid sick leave;
 - (vi) Disclosing confidential information contained in certification or other documentation provided to verify the need to use paid sick leave; or
 - (vii) Making the use of paid sick leave contingent on the employee's finding a replacement worker or the fulfillment of the Contractor's operational needs.
- (2) The Contractor shall not discharge or in any other manner discriminate against any employee for--
- (i) Using, or attempting to use, paid sick leave as provided for under E.O. 13706 and 29 CFR part 13;
 - (ii) Filing any complaint, initiating any proceeding, or otherwise asserting any right or claim under E.O. 13706 and 29 CFR part 13;
 - (iii) Cooperating in any investigation or testifying in any proceeding under E.O. 13706 and 29 CFR part 13; or
 - (iv) Informing any other person about his or her rights under E.O. 13706 and 29 CFR part 13.
- (k) Notice. The Contractor shall notify all employees performing work on or in connection with a contract covered by the E.O. of the paid sick leave requirements of E.O. 13706, 29 CFR part 13, and this clause by posting a notice provided by the Department of Labor in a prominent and accessible place at the worksite so it may be readily seen by employees. Contractors that customarily post notices to employees electronically may post the notice electronically, provided such electronic posting is displayed prominently on any Web site that is maintained by the Contractor, whether external or internal, and customarily used for notices to employees about terms and conditions of employment.
- (l) Disputes concerning labor standards. Disputes related to the application of E.O. 13706 to this contract shall not be subject to the general disputes clause of the contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR part 13. Disputes within the meaning of this contract clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the Department of Labor, or the employees or their representatives.

(m) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (m), in all subcontracts, regardless of dollar value, that are subject to the Service Contract Labor Standards statute or the Wage Rate Requirements (Construction) statute, and are to be performed in whole or in part in the United States.

(End of clause)

52.223-6 DRUG-FREE WORKPLACE (MAY 2001)

(a) Definitions. As used in this clause --

"Controlled substance" means a controlled substance in schedules I through V of section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11 - 1308.15.

"Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession, or use of any controlled substance.

"Drug-free workplace" means the site(s) for the performance of work done by the Contractor in connection with a specific contract at which employees of the Contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

"Employee" means an employee of a Contractor directly engaged in the performance of work under a Government contract. "Directly engaged" is defined to include all direct cost employees and any other Contractor employee who has other than a minimal impact or involvement in contract performance.

"Individual" means an offeror/contractor that has no more than one employee including the offeror/contractor.

(b) The Contractor, if other than an individual, shall-- within 30 days after award (unless a longer period is agreed to in writing for contracts of 30 days or more performance duration), or as soon as possible for contracts of less than 30 days performance duration--

(1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;

(2) Establish an ongoing drug-free awareness program to inform such employees about--

- (i) The dangers of drug abuse in the workplace;
 - (ii) The Contractor's policy of maintaining a drug-free workplace;
 - (iii) Any available drug counseling, rehabilitation, and employee assistance programs; and
 - (iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;
- (3) Provide all employees engaged in performance of the contract with a copy of the statement required by subparagraph (b)(1) of this clause;
- (4) Notify such employees in writing in the statement required by subparagraph (b)(1) of this clause that, as a condition of continued employment on this contract, the employee will--
- (i) Abide by the terms of the statement; and
 - (ii) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 days after such conviction.
- (5) Notify the Contracting Officer in writing within 10 days after receiving notice under subdivision (b)(4)(ii) of this clause, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;
- (6) Within 30 days after receiving notice under subdivision (b)(4)(ii) of this clause of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace:
- (i) Taking appropriate personnel action against such employee, up to and including termination; or
 - (ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency; and
- (7) Make a good faith effort to maintain a drug-free workplace through implementation of subparagraphs (b)(1) through (b)(6) of this clause.
- (c) The Contractor, if an individual, agrees by award of the contract or acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance while performing this contract.
- (d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraph (b) or (c) of this clause may, pursuant to FAR 23.506, render the Contractor subject to suspension of contract payments, termination of the contract for default,

and suspension or debarment.

(End of clause)

52.223-17 AFFIRMATIVE PROCUREMENT OF EPA-DESIGNATED ITEMS IN SERVICE AND CONSTRUCTION CONTRACTS (MAY 2008)

(a) In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired—

(1) Competitively within a timeframe providing for compliance with the contract performance schedule;

(2) Meeting contract performance requirements; or

(3) At a reasonable price.

(b) Information about this requirement is available at EPA's Comprehensive Procurement Guidelines web site, <http://www.epa.gov/cpg/>. The list of EPA-designated items is available at <http://www.epa.gov/cpg/products.htm>.

(End of clause)

52.223-18 ENCOURAGING CONTRACTOR POLICIES TO BAN TEXT MESSAGING WHILE DRIVING (AUG 2011)

(a) Definitions. As used in this clause--

Driving—

(1) Means operating a motor vehicle on an active roadway with the motor running, including while temporarily stationary because of traffic, a traffic light, stop sign, or otherwise.

(2) Does not include operating a motor vehicle with or without the motor running when one has pulled over to the side of, or off, an active roadway and has halted in a location where one can safely remain stationary.

Text messaging means reading from or entering data into any handheld or other electronic device, including for the purpose of short message service texting, e-mailing, instant messaging, obtaining navigational information, or engaging in any other form of electronic data retrieval or electronic data communication. The term does not include glancing at or listening to a navigational device that is secured in a commercially designed holder affixed to the

vehicle, provided that the destination and route are programmed into the device either before driving or while stopped in a location off the roadway where it is safe and legal to park.

(b) This clause implements Executive Order 13513, Federal Leadership on Reducing Text Messaging while Driving, dated October 1, 2009.

(c) The Contractor is encouraged to--

(1) Adopt and enforce policies that ban text messaging while driving--

(i) Company-owned or -rented vehicles or Government-owned vehicles; or

(ii) Privately-owned vehicles when on official Government business or when performing any work for or on behalf of the Government.

(2) Conduct initiatives in a manner commensurate with the size of the business, such as--

(i) Establishment of new rules and programs or re-evaluation of existing programs to prohibit text messaging while driving; and

(ii) Education, awareness, and other outreach to employees about the safety risks associated with texting while driving.

(d) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (d), in all subcontracts that exceed the micro-purchase threshold.

(End of clause)

52.225-11 BUY AMERICAN ACT --CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (OCT 2016) ALTERNATE I (MAY 2014)

(a) Definitions. As used in this clause--

Australian, Chilean, or Moroccan construction material means a construction material that--

(1) Is wholly the growth, product, or manufacture of Australia, Chile, or Morocco; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in Australia, Chile, or Morocco into a new and different construction material distinct from the materials from which it was transformed.

Bahrainian, Mexican, or Omani construction material means a construction material that—

(1) Is wholly the growth, product, or manufacture of Bahrain, Mexico; or Oman

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in Bahrain, Mexico, or Oman into a new and different construction material distinct from the materials from which it was transformed.

Caribbean Basin country construction material means a construction material that--

(1) Is wholly the growth, product, or manufacture of a Caribbean Basin country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a Caribbean Basin country into a new and different construction material distinct from the materials from which it was transformed.

Component means an article, material, or supply incorporated directly into a construction material.

Construction material means an article, material, or supply brought to the construction site by the Contractor or subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

Cost of components means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.

Designated country means any of the following countries:

(1) A World Trade Organization Government Procurement Agreement (WTO GPA) country (Armenia, Aruba, Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Montenegro, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Taiwan, Ukraine, or United Kingdom);

(2) A Free Trade Agreement (FTA) country (Australia, Bahrain, Canada, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Korea (Republic of), Mexico, Morocco, Nicaragua, Oman, Panama, Peru, or Singapore);

(3) A least developed country (Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Djibouti, Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Laos, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, Tanzania, Timor-Leste, Togo, Tuvalu, Uganda, Vanuatu, Yemen, or Zambia); or

(4) A Caribbean Basin country (Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bonaire, British Virgin Islands, Curacao, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Saba, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Sint Eustatius, Sint Maarten, or Trinidad and Tobago).

Domestic construction material means--

(1) An unmanufactured construction material mined or produced in the United States; or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

Foreign construction material means a construction material other than a domestic construction material.

Least developed country construction material means a construction material that--

(1) Is wholly the growth, product, or manufacture of a least developed country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a least developed country into a new and different construction material distinct from the materials from which it was transformed.

“Free Trade Agreement country construction material” means a construction material that—

(1) Is wholly the growth, product, or manufacture of a Free Trade Agreement (FTA) country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a FTA country into a new and different construction material distinct from the materials from which it was transformed.

“Least developed country construction material” means a construction material that—

- (1) Is wholly the growth, product, or manufacture of a least developed country; or
- (2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a least developed country into a new and different construction material distinct from the materials from which it was transformed.

United States means the 50 States, the District of Columbia, and outlying areas.

WTO GPA country construction material means a construction material that--

- (1) Is wholly the growth, product, or manufacture of a WTO GPA country; or
- (2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a WTO GPA country into a new and different construction material distinct from the materials from which it was transformed.

(b) Construction materials.

(1) This clause implements 41 U.S.C. chapter 83, Buy American, by providing a preference for domestic construction material. In accordance with 41 U.S.C. 1907, the component test of the Buy American statute is waived for construction material that is a COTS item. (See FAR 12.505(a)(2)). In addition, the Contracting Officer has determined that the WTO GPA and all the Free Trade Agreements except the Bahrain FTA, NAFTA, and the Oman FTA apply to this acquisition. Therefore, the Buy American statute restrictions are waived for designated country construction materials other than Bahrainian, Mexican, or Omani construction materials.

(2) The Contractor shall use only domestic or designated country construction material other than Bahrainian, Mexican, or Omani construction material in performing this contract, except as provided in paragraphs (b)(3) and (b)(4) of this clause.

(3) The requirement in paragraph (b)(2) of this clause does not apply to the construction materials or components listed by the Government as follows: **none**.

(4) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(3) of this clause if the Government determines that--

- (i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the restrictions of the Buy American statute is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;
- (ii) The application of the restriction of the Buy American statute to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American statute. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(4) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American statute applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(4)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American statute applies, use of foreign construction material is noncompliant with the Buy American statute.

(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars) \1\
Item 1:			
Foreign construction material....
Domestic construction material...
Item 2:			
Foreign construction material....
Domestic construction material...

\1\ Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).

List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.

Include other applicable supporting information.

(End of clause)

52.225-13 RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (JUN 2008)

(a) Except as authorized by the Office of Foreign Assets Control (OFAC) in the Department of the Treasury, the Contractor shall not acquire, for use in the performance of this contract, any supplies or services if any proclamation, Executive order, or statute administered by OFAC, or if OFAC's implementing regulations at 31 CFR chapter V, would prohibit such a transaction by a person subject to the jurisdiction of the United States.

(b) Except as authorized by OFAC, most transactions involving Cuba, Iran, and Sudan are prohibited, as are most imports from Burma or North Korea, into the United States or its outlying areas. Lists of entities and individuals subject to economic sanctions are included in OFAC's List of Specially Designated Nationals and Blocked Persons at TerList1.html. More information about these restrictions, as well as updates, is available in the OFAC's regulations at 31 CFR chapter V and/or on OFAC's Web site at <http://www.treas.gov/offices/enforcement/ofac/>.

(c) The Contractor shall insert this clause, including this paragraph (c), in all subcontracts.

(End of clause)

52.226-1 UTILIZATION OF INDIAN ORGANIZATIONS AND INDIAN-OWNED
ECONOMIC ENTERPRISES (JUN 2000)

(a) Definitions. As used in this clause:

“Indian” means any person who is a member of any Indian tribe, band, group, pueblo, or community that is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs (BIA) in accordance with 25 U.S.C.1452(c) and any “Native” as defined in the Alaska Native Claims Settlement Act (43 U.S.C. 1601).

“Indian organization” means the governing body of any Indian tribe or entity established or recognized by the governing body of an Indian tribe for the purposes of 25 U.S.C., chapter 17.

“Indian-owned economic enterprise” means any Indian-owned (as determined by the Secretary of the Interior) commercial, industrial, or business activity established or organized for the purpose of profit, provided that Indian ownership constitutes not less than 51 percent of the enterprise.

“Indian tribe” means any Indian tribe, band, group, pueblo, or community, including native villages and native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, that is recognized by the Federal Government as eligible for services from BIA in accordance with 25 U.S.C. 1452(c).

“Interested party” means a prime contractor or an actual or prospective offeror whose direct economic interest would be affected by the award of a subcontract or by the failure to award a subcontract.

(b) The Contractor shall use its best efforts to give Indian organizations and Indian-owned economic enterprises (25 U.S.C. 1544) the maximum practicable opportunity to participate in the subcontracts it awards to the fullest extent consistent with efficient performance of its contract.

(1) The Contracting Officer and the Contractor, acting in good faith, may rely on the representation of an Indian organization or Indian-owned economic enterprise as to its eligibility, unless an interested party challenges its status or the Contracting Officer has independent reason to question that status. In the event of a challenge to the representation of a subcontractor, the Contracting Officer will refer the matter to the:

U.S. Department of the Interior
Bureau of Indian Affairs (BIA)
Attn: Chief, Division of Contracting and Grants Administration
1849 C Street, NW, MS-2626-MIB
Washington, DC 20240-4000

The BIA will determine the eligibility and notify the Contracting Officer. No incentive payment will be made within 50 working days of subcontract award or while a challenge is pending. If a

subcontractor is determined to be an ineligible participant, no incentive payment will be made under the Indian Incentive Program.

(2) The Contractor may request an adjustment under the Indian Incentive Program to the following:

- (i) The estimated cost of a cost-type contract.
- (ii) The target cost of a cost-plus-incentive-fee prime contract.
- (iii) The target cost and ceiling price of a fixed-price incentive prime contract.
- (iv) The price of a firm-fixed-price prime contract.

(3) The amount of the adjustment to the prime contract is 5 percent of the estimated cost, target cost, or firm-fixed-price included in the subcontract initially awarded to the Indian organization or Indian-owned economic enterprise.

(4) The Contractor has the burden of proving the amount claimed and must assert its request for an adjustment prior to completion of contract performance.

(c) The Contracting Officer, subject to the terms and conditions of the contract and the availability of funds, will authorize an incentive payment of 5 percent of the amount paid to the subcontractor. The Contracting Officer will seek funding in accordance with agency procedures.

(End of Clause)

52.227-1 AUTHORIZATION AND CONSENT (DEC 2007)

(a) The Government authorizes and consents to all use and manufacture, in performing this contract or any subcontract at any tier, of any invention described in and covered by a United States patent--

(1) Embodied in the structure or composition of any article the delivery of which is accepted by the Government under this contract; or

(2) Used in machinery, tools, or methods whose use necessarily results from compliance by the Contractor or a subcontractor with (i) specifications or written provisions forming a part of this contract or (ii) specific written instructions given by the Contracting Officer directing the manner of performance. The entire liability to the Government for infringement of a United States patent shall be determined solely by the provisions of the indemnity clause, if any, included in this contract or any subcontract hereunder (including any lower-tier subcontract), and the Government assumes liability for all other infringement to the extent of the authorization and consent hereinabove granted.

(b) The Contractor shall include the substance of this clause, including this paragraph (b), in all subcontracts that are expected to exceed the simplified acquisition threshold. However, omission

of this clause from any subcontract, including those at or below the simplified acquisition threshold, does not affect this authorization and consent.

(End of clause)

52.227-2 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT
INFRINGEMENT (DEC 2007)

(a) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the Contractor has knowledge.

(b) In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed under this contract, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in the Contractor's possession pertaining to such claim or suit. Such evidence and information shall be furnished at the expense of the Government except where the Contractor has agreed to indemnify the Government.

(c) The Contractor shall include the substance of this clause, including this paragraph (c), in all subcontracts that are expected to exceed the simplified acquisition threshold.

(End of Clause)

52.228-2 ADDITIONAL BOND SECURITY (OCT 1997)

The Contractor shall promptly furnish additional security required to protect the Government and persons supplying labor or materials under this contract if--

(a) Any surety upon any bond, or issuing financial institution for other security, furnished with this contract becomes unacceptable to the Government.

(b) Any surety fails to furnish reports on its financial condition as required by the Government;

(c) The contract price is increased so that the penal sum of any bond becomes inadequate in the opinion of the Contracting Officer; or

(d) An irrevocable letter of credit (ILC) used as security will expire before the end of the period of required security. If the Contractor does not furnish an acceptable extension or replacement ILC, or other acceptable substitute, at least 30 days before an ILC's scheduled expiration, the Contracting officer has the right to immediately draw on the ILC.

(End of clause)

52.228-5 INSURANCE--WORK ON A GOVERNMENT INSTALLATION (JAN 1997)

(a) The Contractor shall, at its own expense, provide and maintain during the entire performance of this contract, at least the kinds and minimum amounts of insurance required in the Schedule or elsewhere in the contract.

(b) Before commencing work under this contract, the Contractor shall notify the Contracting Officer in writing that the required insurance has been obtained. The policies evidencing required insurance shall contain an endorsement to the effect that any cancellation or any material change adversely affecting the Government's interest shall not be effective (1) for such period as the laws of the State in which this contract is to be performed prescribe, or (2) until 30 days after the insurer or the Contractor gives written notice to the Contracting Officer, whichever period is longer.

(c) The Contractor shall insert the substance of this clause, including this paragraph (c), in subcontracts under this contract that require work on a Government installation and shall require subcontractors to provide and maintain the insurance required in the Schedule or elsewhere in the contract. The Contractor shall maintain a copy of all subcontractors' proofs of required insurance, and shall make copies available to the Contracting Officer upon request.

(End of clause)

52.228-11 PLEDGES OF ASSETS (JAN 2012)

(a) Offerors shall obtain from each person acting as an individual surety on a bid guarantee, a performance bond, or a payment bond--

(1) Pledge of assets; and

(2) Standard Form 28, Affidavit of Individual Surety.

(b) Pledges of assets from each person acting as an individual surety shall be in the form of--

(1) Evidence of an escrow account containing cash, certificates of deposit, commercial or Government securities, or other assets described in FAR 28.203-2 (except see 28.203-2(b)(2) with respect to Government securities held in book entry form); and/or

(2) A recorded lien on real estate. The offeror will be required to provide--

(i) A mortgagee title insurance policy, in an insurance amount equal to the amount of the lien, or other evidence of title that is consistent with the requirements of Section 2 of the United States Department of Justice Title Standards at

http://www.justice.gov/enrd/ENRD_Assets/Title_Standards_2001.pdf. This title evidence must show fee simple title vested in the surety along with any concurrent owners; whether any real

estate taxes are due and payable; and any recorded encumbrances against the property, including the lien filed in favor of the Government as required by FAR 28.203-3(d);

(ii) Evidence of the amount due under any encumbrance shown in the evidence of title;

(iii) A copy of the current real estate tax assessment of the property or a current appraisal dated no earlier than 6 months prior to the date of the bond, prepared by a professional appraiser who certifies that the appraisal has been conducted in accordance with the generally accepted appraisal standards as reflected in the Uniform Standards of Professional Appraisal Practice, as promulgated by the Appraisal Foundation.

(End of clause)

52.228-12 PROSPECTIVE SUBCONTRACTOR REQUESTS FOR BONDS. (MAY 2014)

In accordance with section 806(a)(3) of Pub. L. 102-190, as amended by sections 2091 and 8105 of Pub. L. 103-355 (10 U.S.C. 2302 note), upon the request of a prospective subcontractor or supplier offering to furnish labor or material for the performance of this contract for which a payment bond has been furnished to the Government pursuant to 40 U.S.C. chapter 31, subchapter III, Bonds, the Contractor shall promptly provide a copy of such payment bond to the requester.

(End of clause)

52.228-14 IRREVOCABLE LETTER OF CREDIT (NOV 2014)

(a) "Irrevocable letter of credit" (ILC), as used in this clause, means a written commitment by a federally insured financial institution to pay all or part of a stated amount of money, until the expiration date of the letter, upon presentation by the Government (the beneficiary) of a written demand therefor. Neither the financial institution nor the offeror/Contractor can revoke or condition the letter of credit.

(b) If the offeror intends to use an ILC in lieu of a bid bond, or to secure other types of bonds such as performance and payment bonds, the letter of credit and letter of confirmation formats in paragraphs (e) and (f) of this clause shall be used.

(c) The letter of credit shall be irrevocable, shall require presentation of no document other than a written demand and the ILC (including confirming letter, if any), shall be issued/confirmed by an acceptable federally insured financial institution as provided in paragraph (d) of this clause, and--

(1) If used as a bid guarantee, the ILC shall expire no earlier than 60 days after the close of the bid acceptance period;

(2) If used as an alternative to corporate or individual sureties as security for a performance or payment bond, the offeror/Contractor may submit an ILC with an initial expiration date estimated to cover the entire period for which financial security is required or may submit an ILC with an initial expiration date that is a minimum period of one year from the date of issuance. The ILC shall provide that, unless the issuer provides the beneficiary written notice of non-renewal at least 60 days in advance of the current expiration date, the ILC is automatically extended without amendment for one year from the expiration date, or any future expiration date, until the period of required coverage is completed and the Contracting Officer provides the financial institution with a written statement waiving the right to payment. The period of required coverage shall be:

(i) For contracts subject to 40 U.S.C. chapter 31, subchapter III, Bonds, the later of--

(A) One year following the expected date of final payment;

(B) For performance bonds only, until completion of any warranty period; or

(C) For payment bonds only, until resolution of all claims filed against the payment bond during the one-year period following final payment.

(ii) For contracts not subject to the Miller Act, the later of--

(A) 90 days following final payment; or

(B) For performance bonds only, until completion of any warranty period.

(d)(1) Only federally insured financial institutions rated investment grade by a commercial rating service shall issue or confirm the ILC.

(2) Unless the financial institution issuing the ILC had letter of credit business of at least \$25 million in the past year, ILCs over \$5 million must be confirmed by another acceptable financial institution that had letter of credit business of at least \$25 million in the past year.

(3) The Offeror/Contractor shall provide the Contracting Officer a credit rating that indicates the financial institutions have the required credit rating as of the date of issuance of the ILC.

(4) The current rating for a financial institution is available through any of the following rating services registered with the U.S. Securities and Exchange Commission (SEC) as a Nationally Recognized Statistical Rating Organization (NRSRO). NRSRO's can be located at the Web site <http://www.sec.gov/answers/nrsro.htm> maintained by the SEC.

(e) The following format shall be used by the issuing financial institution to create an ILC:

[Issuing Financial Institution's Letterhead or Name and Address]

Issue Date _ _ _ _

IRREVOCABLE LETTER OF CREDIT NO. _ _ _ _

Account party's name _ _ _ _

Account party's address _ _ _ _

For Solicitation No. _ _ _ _ (for reference only)

TO: [_ _ _ _ U.S. Government agency]

[_ _ _ _ U.S. Government agency's address]

1. We hereby establish this irrevocable and transferable Letter of Credit in your favor for one or more drawings up to United States \$ _ _ _ _ . This Letter of Credit is payable at [issuing financial institution's and, if any, confirming financial institution's] office at [_ _ _ _ issuing financial institution's address and, if any, confirming financial institution's address] and expires with our close of business on _ _ _ _ , or any automatically extended expiration date.

2. We hereby undertake to honor your or the transferee's sight draft(s) drawn on the issuing or, if any, the confirming financial institution, for all or any part of this credit if presented with this Letter of Credit and confirmation, if any, at the office specified in paragraph 1 of this Letter of Credit on or before the expiration date or any automatically extended expiration date.

3. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for one year from the expiration date hereof, or any future expiration date, unless at least 60 days prior to any expiration date, we notify you or the transferee by registered mail, or other receipted means of delivery, that we elect not to consider this Letter of Credit renewed for any such additional period. At the time we notify you, we also agree to notify the account party (and confirming financial institution, if any) by the same means of delivery.

4. This Letter of Credit is transferable. Transfers and assignments of proceeds are to be effected without charge to either the beneficiary or the transferee/assignee of proceeds. Such transfer or assignment shall be only at the written direction of the Government (the beneficiary) in a form satisfactory to the issuing financial institution and the confirming financial institution, if any.

5. This Letter of Credit is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, International Chamber of Commerce Publication No. _ _ _ _ -- (Insert version in effect at the time of ILC issuance, e.g., ``Publication 600, 2006 edition") and to the extent not inconsistent therewith, to the laws of _ _ _ _ --[State of confirming financial institution, if any, otherwise State of issuing financial institution].

6. If this credit expires during an interruption of business of this financial institution as described in Article 17 of the UCP, the financial institution specifically agrees to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

[_____ Issuing financial institution]

(f) The following format shall be used by the financial institution to confirm an ILC:

_____ [Confirming Financial Institution's Letterhead or Name and Address]

(Date) _____

Our Letter of Credit Advice Number _____

Beneficiary: _____ [U.S. Government agency]

Issuing Financial Institution: _____

Issuing Financial Institution's LC No.: _____

Gentlemen:

1. We hereby confirm the above indicated Letter of Credit, the original of which is attached, issued by _____ [name of issuing financial institution] for drawings of up to United States dollars _____/U.S. \$ _____ and expiring with our close of business on _____ [the expiration date], or any automatically extended expiration date.

2. Draft(s) drawn under the Letter of Credit and this Confirmation are payable at our office located at _____.

3. We hereby undertake to honor sight draft(s) drawn under and presented with the Letter of Credit and this Confirmation at our offices as specified herein.

4. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this confirmation that it be deemed automatically extended without amendment for one year from the expiration date hereof, or any automatically extended expiration date, unless:

(a) At least 60 days prior to any such expiration date, we shall notify the Contracting Officer, or the transferee and the issuing financial institution, by registered mail or other receipted means of delivery, that we elect not to consider this confirmation extended for any such additional period;
or

(b) The issuing financial institution shall have exercised its right to notify you or the transferee, the account party, and ourselves, of its election not to extend the expiration date of the Letter of Credit.

5. This confirmation is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, International Chamber of Commerce Publication No. ____ -- (Insert version in effect at the time of ILC issuance, e.g., ``Publication 600, 2006 edition") and to the extent not inconsistent therewith, to the laws of ____ --[State of confirming financial institution].

6. If this confirmation expires during an interruption of business of this financial institution as described in Article 17 of the UCP, we specifically agree to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

[Confirming financial institution]

(g) The following format shall be used by the Contracting Officer for a sight draft to draw on the Letter of Credit:

SIGHT DRAFT

[City, State]

(Date) ____

[Name and address of financial institution]

Pay to the order of ____ [Beneficiary Agency] ____ the sum of United States ____ This draft is drawn under Irrevocable Letter of Credit No. ____

____ [Beneficiary Agency]

By: ____

(End of clause)

52.228-15 PERFORMANCE AND PAYMENT BONDS--CONSTRUCTION (OCT 2010)

(a) Definitions. As used in this clause--

Original contract price means the award price of the contract; or, for requirements contracts, the price payable for the estimated total quantity; or, for indefinite-quantity contracts, the price payable for the specified minimum quantity. Original contract price does not include the price of any options, except those options exercised at the time of contract award.

(b) Amount of required bonds. Unless the resulting contract price is \$150,000 or less, the successful offeror shall furnish performance and payment bonds to the Contracting Officer as follows:

(1) Performance bonds (Standard Form 25). The penal amount of performance bonds at the time of contract award shall be 100 percent of the original contract price.

(2) Payment Bonds (Standard Form 25-A). The penal amount of payment bonds at the time of contract award shall be 100 percent of the original contract price.

(3) Additional bond protection. (i) The Government may require additional performance and payment bond protection if the contract price is increased. The increase in protection generally will equal 100 percent of the increase in contract price.

(ii) The Government may secure the additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.

(c) Furnishing executed bonds. The Contractor shall furnish all executed bonds, including any necessary reinsurance agreements, to the Contracting Officer, within the time period specified in the Bid Guarantee provision of the solicitation, or otherwise specified by the Contracting Officer, but in any event, before starting work.

(d) Surety or other security for bonds. The bonds shall be in the form of firm commitment, supported by corporate sureties whose names appear on the list contained in Treasury Department Circular 570, individual sureties, or by other acceptable security such as postal money order, certified check, cashier's check, irrevocable letter of credit, or, in accordance with Treasury Department regulations, certain bonds or notes of the United States. Treasury Circular 570 is published in the Federal Register or may be obtained from the U.S. Department of the Treasury, Financial Management Service, Surety Bond Branch, 3700 East West Highway, Room 6F01, Hyattsville, MD 20782. Or via the internet at <http://www.fms.treas.gov/c570/>.

(e) Notice of subcontractor waiver of protection (40 U.S.C. 3133(c)). Any waiver of the right to sue on the payment bond is void unless it is in writing, signed by the person whose right is waived, and executed after such person has first furnished labor or material for use in the performance of the contract.

(End of clause)

52.229-3 FEDERAL, STATE, AND LOCAL TAXES (FEB 2013)

(a) As used in this clause—

“After-imposed Federal tax” means any new or increased Federal excise tax or duty, or tax that was exempted or excluded on the contract date but whose exemption was later revoked or reduced during the contract period, on the transactions or property covered by this contract that the Contractor is required to pay or bear as the result of legislative, judicial, or administrative action taking effect after the contract date. It does not include social security tax or other employment taxes.

“After-relieved Federal tax” means any amount of Federal excise tax or duty, except social security or other employment taxes, that would otherwise have been payable on the transactions or property covered by this contract, but which the Contractor is not required to pay or bear, or for which the Contractor obtains a refund or drawback, as the result of legislative, judicial, or administrative action taking effect after the contract date.

“All applicable Federal, State, and local taxes and duties” means all taxes and duties, in effect on the contract date, that the taxing authority is imposing and collecting on the transactions or property covered by this contract.

“Contract date” means the date set for bid opening or, if this is a negotiated contract or a modification, the effective date of this contract or modification.

“Local taxes” includes taxes imposed by a possession or territory of the United States, Puerto Rico, or the Northern Mariana Islands, if the contract is performed wholly or partly in any of those areas.

(b)(1) The contract price includes all applicable Federal, State, and local taxes and duties, except as provided in subparagraph (b)(2)(i) of this clause.

(2) Taxes imposed under 26 U.S.C. 5000C may not be—

(i) Included in the contract price; nor

(ii) Reimbursed.

(c) The contract price shall be increased by the amount of any after-imposed Federal tax, provided the Contractor warrants in writing that no amount for such newly imposed Federal excise tax or duty or rate increase was included in the contract price, as a contingency reserve or otherwise.

(d) The contract price shall be decreased by the amount of any after-relieved Federal tax.

(e) The contract price shall be decreased by the amount of any Federal excise tax or duty, except social security or other employment taxes, that the Contractor is required to pay or bear, or does

not obtain a refund of, through the Contractor's fault, negligence, or failure to follow instructions of the Contracting Officer.

(f) No adjustment shall be made in the contract price under this clause unless the amount of the adjustment exceeds \$250.

(g) The Contractor shall promptly notify the Contracting Officer of all matters relating to any Federal excise tax or duty that reasonably may be expected to result in either an increase or decrease in the contract price and shall take appropriate action as the Contracting Officer directs.

(h) The Government shall, without liability, furnish evidence appropriate to establish exemption from any Federal, State, or local tax when the Contractor requests such evidence and a reasonable basis exists to sustain the exemption.

(End of clause)

52.232-5 PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS (MAY 2014)

(a) Payment of price. The Government shall pay the Contractor the contract price as provided in this contract.

(b) Progress payments. The Government shall make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer.

(1) The Contractor's request for progress payments shall include the following substantiation:

(i) An itemization of the amounts requested, related to the various elements of work required by the contract covered by the payment requested.

(ii) A listing of the amount included for work performed by each subcontractor under the contract.

(iii) A listing of the total amount of each subcontract under the contract.

(iv) A listing of the amounts previously paid to each such subcontractor under the contract.

(v) Additional supporting data in a form and detail required by the Contracting Officer.

(2) In the preparation of estimates, the Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the Contractor at locations other than the site also may be taken into consideration if--

(i) Consideration is specifically authorized by this contract; and

(ii) The Contractor furnishes satisfactory evidence that it has acquired title to such material and that the material will be used to perform this contract.

(c) Contractor certification. Along with each request for progress payments, the Contractor shall furnish the following certification, or payment shall not be made: (However, if the Contractor elects to delete paragraph (c)(4) from the certification, the certification is still acceptable.)

I hereby certify, to the best of my knowledge and belief, that--

(1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;

(2) All payments due to subcontractors and suppliers from previous payments received under the contract have been made, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements and the requirements of chapter 39 of Title 31, United States Code;

(3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract; and

(4) This certification is not to be construed as final acceptance of a subcontractor's performance.

(Name)

(Title)

(Date)

(d) Refund of unearned amounts. If the Contractor, after making a certified request for progress payments, discovers that a portion or all of such request constitutes a payment for performance by the Contractor that fails to conform to the specifications, terms, and conditions of this contract (hereinafter referred to as the "unearned amount"), the Contractor shall--

(1) Notify the Contracting Officer of such performance deficiency; and

(2) Be obligated to pay the Government an amount (computed by the Contracting Officer in the manner provided in paragraph (j) of this clause) equal to interest on the unearned amount from

the 8th day after the date of receipt of the unearned amount until--

(i) The date the Contractor notifies the Contracting Officer that the performance deficiency has been corrected; or

(ii) The date the Contractor reduces the amount of any subsequent certified request for progress payments by an amount equal to the unearned amount.

(e) Retainage. If the Contracting Officer finds that satisfactory progress was achieved during any period for which a progress payment is to be made, the Contracting Officer shall authorize payment to be made in full. However, if satisfactory progress has not been made, the Contracting Officer may retain a maximum of 10 percent of the amount of the payment until satisfactory progress is achieved. When the work is substantially complete, the Contracting Officer may retain from previously withheld funds and future progress payments that amount the Contracting Officer considers adequate for protection of the Government and shall release to the Contractor all the remaining withheld funds. Also, on completion and acceptance of each separate building, public work, or other division of the contract, for which the price is stated separately in the contract, payment shall be made for the completed work without retention of a percentage.

(f) Title, liability, and reservation of rights. All material and work covered by progress payments made shall, at the time of payment, become the sole property of the Government, but this shall not be construed as--

(1) Relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or

(2) Waiving the right of the Government to require the fulfillment of all of the terms of the contract.

(g) Reimbursement for bond premiums. In making these progress payments, the Government shall, upon request, reimburse the Contractor for the amount of premiums paid for performance and payment bonds (including coinsurance and reinsurance agreements, when applicable) after the Contractor has furnished evidence of full payment to the surety. The retainage provisions in paragraph (e) of this clause shall not apply to that portion of progress payments attributable to bond premiums.

(h) Final payment. The Government shall pay the amount due the Contractor under this contract after--

(1) Completion and acceptance of all work;

(2) Presentation of a properly executed voucher; and

(3) Presentation of release of all claims against the Government arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. A release may also be required of the assignee if the Contractor's claim

to amounts payable under this contract has been assigned under the Assignment of Claims Act of 1940 (31 U.S.C. 3727 and 41 U.S.C. 6305).

(i) Limitation because of undefinitized work. Notwithstanding any provision of this contract, progress payments shall not exceed 80 percent on work accomplished on undefinitized contract actions. A "contract action" is any action resulting in a contract, as defined in FAR Subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope and under the terms of the contract, such as contract modifications issued pursuant to the Changes clause, or funding and other administrative changes.

(j) Interest computation on unearned amounts. In accordance with 31 U.S.C. 3903(c)(1), the amount payable under subparagraph (d)(2) of this clause shall be--

(1) Computed at the rate of average bond equivalent rates of 91-day Treasury bills auctioned at the most recent auction of such bills prior to the date the Contractor receives the unearned amount; and

(2) Deducted from the next available payment to the Contractor.

(End of clause)

52.232-16 PROGRESS PAYMENTS (APR 2012) ALTERNATE III (APR 2003)

The Government will make progress payments to the Contractor when requested as work progresses, but not more frequently than monthly in amounts of \$2,500 or more approved by the Contracting Officer, under the following conditions:

(a) Computation of amounts.

(1) Unless the Contractor requests a smaller amount, the Government will compute each progress payment as 80 percent of the Contractor's total costs incurred under this contract whether or not actually paid, plus financing payments to subcontractors (see paragraph (j) of this clause), less the sum of all previous progress payments made by the Government under this contract. The Contracting Officer will consider cost of money that would be allowable under FAR 31.205-10 as an incurred cost for progress payment purposes.

(2) The amount of financing and other payments for supplies and services purchased directly for the contract are limited to the amounts that have been paid by cash, check, or other forms of payment, or that are determined due will be paid to subcontractors--

(i) In accordance with the terms and conditions of a subcontract or invoice; and

(ii) Ordinarily within 30 days of the submission of the Contractor's payment request to the Government.

(3) The Government will exclude accrued costs of Contractor contributions under employee pension plans until actually paid unless--

(i) The Contractor's practice is to make contributions to the retirement fund quarterly or more frequently; and

(ii) The contribution does not remain unpaid 30 days after the end of the applicable quarter or shorter payment period (any contribution remaining unpaid shall be excluded from the Contractor's total costs for progress payments until paid).

(4) The Contractor shall not include the following in total costs for progress payment purposes in paragraph (a)(1) of this clause:

(i) Costs that are not reasonable, allocable to this contract, and consistent with sound and generally accepted accounting principles and practices.

(ii) Costs incurred by subcontractors or suppliers.

(iii) Costs ordinarily capitalized and subject to depreciation or amortization except for the properly depreciated or amortized portion of such costs.

(iv) Payments made or amounts payable to the subcontractors or suppliers, except for--

(A) completed work, including partial deliveries, to which the Contractor has acquired title; and

(B) Work under cost-reimbursement or time-and-material subcontracts to which the Contractor has acquired title.

(5) The amount of unliquidated progress payments may exceed neither (i) the progress payments made against incomplete work (including allowable unliquidated progress payments to subcontractors) nor (ii) the value, for progress payment purposes, of the incomplete work. Incomplete work shall be considered to be the supplies and services required by this contract, for which delivery and invoicing by the Contractor and acceptance by the Government are incomplete.

(6) The total amount of progress payments shall not exceed 80 percent of the total contract price.

(7) If a progress payment or the unliquidated progress payments exceed the amounts permitted by subparagraphs (a)(4) or (a)(5) above, the Contractor shall repay the amount of such excess to the Government on demand.

(8) Notwithstanding any other terms of the contract, the Contractor agrees not to request progress payments in dollar amounts of less than \$2,500. The Contracting Officer may make exceptions.

(9) The costs applicable to items delivered, invoiced, and accepted shall not include costs in

excess of the contract price of the items.

(b) Liquidation. Except as provided in the Termination for Convenience of the Government clause, all progress payments shall be liquidated by deducting from any payment under this contract, other than advance or progress payments, the unliquidated progress payments, or 80 percent of the amount invoiced, whichever is less. The Contractor shall repay to the Government any amounts required by a retroactive price reduction, after computing liquidation's and payments on past invoices at the reduced prices and adjusting the unliquidated progress payments accordingly. The Government reserves the right to unilaterally change from the ordinary liquidation rate to an alternate rate when deemed appropriate for proper contract financing.

(c) Reduction or suspension. The Contracting Officer may reduce or suspend progress payments, increase the rate of liquidation, or take a combination of these actions, after finding on substantial evidence any of the following conditions:

(1) The Contractor failed to comply with any material requirement of this contract (which includes paragraphs (f) and (g) below).

(2) Performance of this contract is endangered by the Contractor's --

(i) Failure to make progress; or

(ii) Unsatisfactory financial condition.

(3) Inventory allocated to this contract substantially exceeds reasonable requirements.

(4) The Contractor is delinquent in payment of the costs of performing this contract in the ordinary course of business.

(5) The fair value of the undelivered work is less than the amount of unliquidated progress payments for that work.

(6) The Contractor is realizing less profit than that reflected in the establishment of any alternate liquidation rate in paragraph (b) above, and that rate is less than the progress payment rate stated in subparagraph (a)(1) above.

(d) Title.

(1) Title to the property described in this paragraph (d) shall vest in the Government. Vestiture shall be immediately upon the date of this contract, for property acquired or produced before that date. Otherwise, vestiture shall occur when the property is or should have been allocable or properly chargeable to this contract.

(2) "Property," as used in this clause, includes all of the below-described items acquired or produced by the Contractor that are or should be allocable or properly chargeable to this contract

under sound and generally accepted accounting principles and practices.

(i) Parts, materials, inventories, and work in process;

(ii) Special tooling and special test equipment to which the Government is to acquire title;

(iii) Nondurable (i.e., noncapital) tools, jigs, dies, fixtures, molds, patterns, taps, gauges, test equipment, and other similar manufacturing aids, title to which would not be obtained as special tooling under subparagraph (ii) above; and

(iv) Drawings and technical data, to the extent the Contractor or subcontractors are required to deliver them to the Government by other clauses of this contract.

(3) Although title to property is in the Government under this clause, other applicable clauses of this contract; e.g., the termination clauses, shall determine the handling and disposition of the property.

(4) The Contractor may sell any scrap resulting from production under this contract without requesting the Contracting Officer's approval, but the proceeds shall be credited against the costs of performance.

(5) To acquire for its own use or dispose of property to which title is vested in the Government under this clause, the Contractor must obtain the Contracting Officer's advance approval of the action and the terms. The Contractor shall

(i) exclude the allocable costs of the property from the costs of contract performance, and

(ii) repay to the Government any amount of unliquidated progress payments allocable to the property. Repayment may be by cash or credit memorandum.

(6) When the Contractor completes all of the obligations under this contract, including liquidation of all progress payments, title shall vest in the Contractor for all property (or the proceeds thereof) not --

(i) Delivered to, and accepted by, the Government under this contract; or

(ii) Incorporated in supplies delivered to, and accepted by, the Government under this contract and to which title is vested in the Government under this clause.

(7) The terms of this contract concerning liability for Government-furnished property shall not apply to property to which the Government acquired title solely under this clause.

(e) Risk of loss. Before delivery to and acceptance by the Government, the Contractor shall bear the risk of loss for property, the title to which vests in the Government under this clause, except to the extent the Government expressly assumes the risk. The Contractor shall repay the Government an amount equal to the unliquidated progress payments that are based on costs

allocable to property that is lost (see 45.101).

(f) Control of costs and property. The Contractor shall maintain an accounting system and controls adequate for the proper administration of this clause.

(g) Reports and access to records.

(1) The Contractor shall promptly furnish reports, certificates, financial statements, and other pertinent information (including estimates to complete) reasonably requested by the Contracting Officer for the administration of this clause. Also, the Contractor shall give the Government reasonable opportunity to examine and verify the Contractor's books, records, and accounts.

(2) The Contractor shall furnish estimates to complete that have been developed or updated within six months of the date of the progress payment request. The estimates to complete shall represent the Contractor's best estimate of total costs to complete all remaining contract work required under the contract. The estimates shall include sufficient detail to permit Government verification.

(3) Each Contractor request for progress payment shall:

(i) Be submitted on Standard Form 1443, Contractor's Request for Progress Payment, or the electronic equivalent as required by agency regulations, in accordance with the form instructions and the contract terms; and

(ii) Include any additional supporting documentation requested by the Contracting Officer.

(h) Special terms regarding default. If this contract is terminated under the Default clause,

(i) the Contractor shall, on demand, repay to the Government the amount of unliquidated progress payments and

(ii) title shall vest in the Contractor, on full liquidation of progress payments, for all property for which the Government elects not to require delivery under the Default clause. The Government shall be liable for no payment except as provided by the Default clause.

(i) Reservations of rights.

(1) No payment or vesting of title under this clause shall—

(i) Excuse the Contractor from performance of obligations under this contract; or

(ii) Constitute a waiver of any of the rights or remedies of the parties under the contract.

(2) The Government's rights and remedies under this clause—

(i) Shall not be exclusive but rather shall be in addition to any other rights and remedies provided

by law or this contract; and

(ii) Shall not be affected by delayed, partial, or omitted exercise of any right, remedy, power, or privilege, nor shall such exercise or any single exercise preclude or impair any further exercise under this clause or the exercise of any other right, power, or privilege of the Government.

(j) Financing payments to subcontractors. The financing payments to subcontractors mentioned in paragraphs (a)(1) and (a)(2) of this clause shall be all financing payments to subcontractors or divisions, if the following conditions are met:

(1) The amounts included are limited to—

(i) The unliquidated remainder of financing payments made; plus

(ii) Any unpaid subcontractor requests for financing payments.

(2) The subcontract or interdivisional order is expected to involve a minimum of approximately 6 months between the beginning of work and the first delivery, or, if the subcontractor is a small business concern, 4 months.

(3) If the financing payments are in the form of progress payments, the terms of the subcontract or interdivisional order concerning progress payments --

(i) Are substantially similar to the terms of the clause for any subcontractor that is a large business concern, or that clause with its Alternate I for any subcontractor that is a small business concern;

(ii) Are at least as favorable to the Government as the terms of this clause;

(iii) Are not more favorable to the subcontractor or division than the terms of this clause are to the Contractor;

(iv) Are in conformance with the requirements of FAR 32.504(e); and

(v) Subordinate all subcontractor rights concerning property to which the Government has title under the subcontract to the Government's right to require delivery of the property to the Government if --

(A) The Contractor defaults; or

(B) The subcontractor becomes bankrupt or insolvent.

(4) If the financing payments are in the form of performance-based payments, the terms of the subcontract or interdivisional order concerning payments—

(i) Are substantially similar to the Performance-Based Payments clause at FAR 52.232-32 and

meet the criteria for, and definition of, performance-based payments in FAR Part 32;

(ii) Are in conformance with the requirements of FAR 32.504(f); and

(iii) Subordinate all subcontractor rights concerning property to which the Government has title under the subcontract to the Government's right to require delivery of the property to the Government if—

(A) The Contractor defaults; or

(B) The subcontractor becomes bankrupt or insolvent.

(5) If the financing payments are in the form of commercial item financing payments, the terms of the subcontract or interdivisional order concerning payments—

(i) Are constructed in accordance with FAR 32.206(c) and included in a subcontract for a commercial item purchase that meets the definition and standards for acquisition of commercial items in FAR Part 2 and 12;

(ii) Are in conformance with the requirements of FAR 32.504(g); and

(iii) Subordinate all subcontractor rights concerning property to which the Government has title under the subcontract to the Government's right to require delivery of the property to the Government if—

(A) The Contractor defaults; or

(B) The subcontractor becomes bankrupt or insolvent.

(6) If financing is in the form of progress payments, the progress payment rate in the subcontract is the customary rate used by the contracting agency, depending on whether the subcontractor is or is not a small business concern.

(7) Concerning any proceeds received by the Government for property to which title has vested in the Government under the subcontract terms, the parties agree that the proceeds shall be applied to reducing any unliquidated financing payments by the Government to the Contractor under this contract.

(8) If no unliquidated financing payments to the Contractor remain, but there are unliquidated financing payments that the Contractor has made to any subcontractor, the Contractor shall be subrogated to all the rights the Government obtained through the terms required by this clause to be in any subcontract, as if all such rights had been assigned and transferred to the Contractor.

(9) To facilitate small business participation in subcontracting under this contract, the Contractor shall provide financing payments to small business concerns, in conformity with the standards for customary contract financing payments stated in Subpart 32.113. The Contractor shall not

consider the need for such financing payments as a handicap or adverse factor in the award of subcontracts.

(k) Limitations on undefinitized contract actions. Notwithstanding any other progress payment provisions in this contract, progress payments may not exceed 80 percent of costs incurred on work accomplished under undefinitized contract actions. A "contract action" is any action resulting in a contract, as defined in Subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope and under the terms of the contract, such as contract modifications issued pursuant to the Changes clause, or funding and other administrative changes. This limitation shall apply to the costs incurred, as computed in accordance with paragraph (a) of this clause, and shall remain in effect until the contract action is definitized. Costs incurred which are subject to this limitation shall be segregated on Contractor progress payment requests and invoices from those costs eligible for higher progress payment rates. For purposes of progress payment liquidation, as described in paragraph (b) of this clause, progress payments for undefinitized contract actions shall be liquidated at 80 percent of the amount invoiced for work performed under the undefinitized contract action as long as the contract action remains undefinitized. The amount of unliquidated progress payments for undefinitized contract actions shall not exceed 80 percent of the maximum liability of the Government under the undefinitized contract action or such lower limit specified elsewhere in the contract. Separate limits may be specified for separate actions.

(l) Due date. The designated payment office will make progress payments on the _____ [Contracting Officer insert date as prescribed by agency head; if not prescribed, insert "30th"] day after the designated billing office receives a proper progress payment request. In the event that the Government requires an audit or other review of a specific progress payment request to ensure compliance with the terms and conditions of the contract, the designated payment office is not compelled to make a payment by the specified due date. Progress payments are considered contract financing and are not subject to the interest penalty provisions of the Prompt Payment Act.

(m) Progress payments under indefinite-delivery contracts. The Contractor shall account for and submit progress payment requests under individual orders as if the order constituted a separate contract, unless otherwise specified in this contract.

(n) The provisions of this clause will not be applicable to individual orders at or below the simplified acquisition threshold.

(End of Clause)

52.232-17 INTEREST (MAY 2014)

(a) Except as otherwise provided in this contract under a Price Reduction for Defective Certified Cost or Pricing Data clause or a Cost Accounting Standards clause, all amounts that become payable by the Contractor to the Government under this contract shall bear simple interest from the date due until paid unless paid within 30 days of becoming due. The interest rate shall be the

interest rate established by the Secretary of the Treasury as provided in 41 U.S.C. 7109, which is applicable to the period in which the amount becomes due, as provided in paragraph (e) of this clause, and then at the rate applicable for each six-month period as fixed by the Secretary until the amount is paid.

(b) The Government may issue a demand for payment to the Contractor upon finding a debt is due under the contract.

(c) Final Decisions. The Contracting Officer will issue a final decision as required by 33.211 if--

(1) The Contracting Officer and the Contractor are unable to reach agreement on the existence or amount of a debt in a timely manner;

(2) The Contractor fails to liquidate a debt previously demanded by the Contracting Officer within the timeline specified in the demand for payment unless the amounts were not repaid because the Contractor has requested an installment payment agreement; or

(3) The Contractor requests a deferment of collection on a debt previously demanded by the Contracting Officer (see 32.607-2).

(d) If a demand for payment was previously issued for the debt, the demand for payment included in the final decision shall identify the same due date as the original demand for payment.

(e) Amounts shall be due at the earliest of the following dates:

(1) The date fixed under this contract.

(2) The date of the first written demand for payment, including any demand for payment resulting from a default termination.

(f) The interest charge shall be computed for the actual number of calendar days involved beginning on the due date and ending on--

(1) The date on which the designated office receives payment from the Contractor;

(2) The date of issuance of a Government check to the Contractor from which an amount otherwise payable has been withheld as a credit against the contract debt; or

(3) The date on which an amount withheld and applied to the contract debt would otherwise have become payable to the Contractor.

(g) The interest charge made under this clause may be reduced under the procedures prescribed in 32.608-2 of the Federal Acquisition Regulation in effect on the date of this contract.

(End of clause)

52.232-23 ASSIGNMENT OF CLAIMS (MAY 2014)

(a) The Contractor, under the Assignment of Claims Act, as amended, 31 U.S.C. 3727, 41 U.S.C. 6305 (hereafter referred to as "the Act"), may assign its rights to be paid amounts due or to become due as a result of the performance of this contract to a bank, trust company, or other financing institution, including any Federal lending agency. The assignee under such an assignment may thereafter further assign or reassign its right under the original assignment to any type of financing institution described in the preceding sentence.

(b) Any assignment or reassignment authorized under the Act and this clause shall cover all unpaid amounts payable under this contract, and shall not be made to more than one party, except that an assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in the financing of this contract.

(c) The Contractor shall not furnish or disclose to any assignee under this contract any classified document (including this contract) or information related to work under this contract until the Contracting Officer authorizes such action in writing.

(End of clause)

52.232-27 PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS (JAN 2017)

Notwithstanding any other payment terms in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer. Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see paragraph (a)(3) concerning payments due on Saturdays, Sundays, and legal holidays.)

(a) Invoice payments--(1) Types of invoice payments. For purposes of this clause, there are several types of invoice payments that may occur under this contract, as follows:

(i) Progress payments, if provided for elsewhere in this contract, based on Contracting Officer approval of the estimated amount and value of work or services performed, including payments for reaching milestones in any project.

(A) The due date for making such payments is 14 days after the designated billing office receives a proper payment request. If the designated billing office fails to annotate the payment request with the actual date of receipt at the time of receipt, the payment due date is the 14th day after the date of the Contractor's payment request, provided the designated billing office receives a proper payment request and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(B) The due date for payment of any amounts retained by the Contracting Officer in accordance with the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts, is as specified in the contract or, if not specified, 30 days after approval by the Contracting Officer for release to the Contractor.

(ii) Final payments based on completion and acceptance of all work and presentation of release of all claims against the Government arising by virtue of the contract, and payments for partial deliveries that have been accepted by the Government (e.g., each separate building, public work, or other division of the contract for which the price is stated separately in the contract).

(A) The due date for making such payments is the later of the following two events:

(1) The 30th day after the designated billing office receives a proper invoice from the Contractor.

(2) The 30th day after Government acceptance of the work or services completed by the Contractor. For a final invoice when the payment amount is subject to contract settlement actions (e.g., release of claims), acceptance is deemed to occur on the effective date of the contract settlement.

(B) If the designated billing office fails to annotate the invoice with the date of actual receipt at the time of receipt, the invoice payment due date is the 30th day after the date of the Contractor's invoice, provided the designated billing office receives a proper invoice and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(2) Contractor's invoice. The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in paragraphs (a)(2)(i) through (a)(2)(xi) of this clause. If the invoice does not comply with these requirements, the designated billing office must return it within 7 days after receipt, with the reasons why it is not a proper invoice. When computing any interest penalty owed the Contractor, the Government will take into account if the Government notifies the Contractor of an improper invoice in an untimely manner.

(i) Name and address of the Contractor.

(ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of mailing or transmission.)

(iii) Contract number or other authorization for work or services performed (including order number and line item number).

(iv) Description of work or services performed.

(v) Delivery and payment terms (e.g., discount for prompt payment terms).

(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).

(vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.

(viii) For payments described in paragraph (a)(1)(i) of this clause, substantiation of the amounts requested and certification in accordance with the requirements of the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts.

(ix) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(x) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision (e.g., 52.232-38, Submission of Electronic Funds Transfer Information with Offer), contract clause (e.g., 52.232-33, Payment by Electronic Funds Transfer--System for Award Management, or 52.232-34, Payment by Electronic Funds Transfer--Other Than System for Award Management), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(xi) Any other information or documentation required by the contract.

(3) Interest penalty. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(3)(i) through (a)(3)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.

(i) The designated billing office received a proper invoice.

(ii) The Government processed a receiving report or other Government documentation authorizing payment and there was no disagreement over quantity, quality, Contractor compliance with any contract term or condition, or requested progress payment amount.

(iii) In the case of a final invoice for any balance of funds due the Contractor for work or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(4) Computing penalty amount. The Government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR part 1315.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor for payments described in paragraph (a)(1)(ii) of this clause, Government acceptance or approval is deemed to occur constructively on the 7th day after the Contractor has completed the work or services in accordance with the terms and conditions of the contract. If actual acceptance or approval occurs within the constructive acceptance or approval period, the Government will base the determination of an interest penalty on the actual date of acceptance or approval.

Constructive acceptance or constructive approval requirements do not apply if there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. These requirements also do not compel Government officials to accept work or services, approve Contractor estimates, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. The Government and the Contractor shall resolve claims involving disputes, and any interest that may be payable in accordance with the clause at FAR 52.233-1, Disputes.

(5) Discounts for prompt payment. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with the prompt payment regulations at 5 CFR part 1315.

(6) Additional interest penalty. (i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR part 1315 in addition to the interest penalty amount only if--

(A) The Government owes an interest penalty of \$1 or more;

(B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and

(C) The Contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(6)(ii) of this clause, postmarked not later than 40 days after the date the invoice amount is paid.

(ii)(A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall--

(1) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;

(2) Attach a copy of the invoice on which the unpaid late payment interest was due; and

(3) State that payment of the principal has been received, including the date of receipt.

(B) If there is no postmark or the postmark is illegible--

(1) The designated payment office that receives the demand will annotate it with the date of receipt provided the demand is received on or before the 40th day after payment was made; or

(2) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand, provided such date is no later than the 40th day after payment was made.

(b) Contract financing payments. If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.

(c) Subcontract clause requirements. The Contractor shall include in each subcontract for property or services (including a material supplier) for the purpose of performing this contract the following:

(1) Prompt payment for subcontractors. A payment clause that obligates the Contractor to pay the subcontractor for satisfactory performance under its subcontract not later than 7 days from receipt of payment out of such amounts as are paid to the Contractor under this contract.

(2) Interest for subcontractors. An interest penalty clause that obligates the Contractor to pay to the subcontractor an interest penalty for each payment not made in accordance with the payment clause--

(i) For the period beginning on the day after the required payment date and ending on the date on which payment of the amount due is made; and

(ii) Computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under 41 U.S.C. 7109 in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(3) Subcontractor clause flowdown. A clause requiring each subcontractor to use:

(i) Include a payment clause and an interest penalty clause conforming to the standards set forth in paragraphs (c)(1) and (c)(2) of this clause in each of its subcontracts; and

(ii) Require each of its subcontractors to include such clauses in their subcontracts with each lower-tier subcontractor or supplier.

(d) Subcontract clause interpretation. The clauses required by paragraph (c) of this clause shall not be construed to impair the right of the Contractor or a subcontractor at any tier to negotiate, and to include in their subcontract, provisions that--

(1) Retainage permitted. Permit the Contractor or a subcontractor to retain (without cause) a specified percentage of each progress payment otherwise due to a subcontractor for satisfactory performance under the subcontract without incurring any obligation to pay a late payment interest penalty, in accordance with terms and conditions agreed to by the parties to the subcontract, giving such recognition as the parties deem appropriate to the ability of a subcontractor to furnish a performance bond and a payment bond;

(2) Withholding permitted. Permit the Contractor or subcontractor to make a determination that part or all of the subcontractor's request for payment may be withheld in accordance with the subcontract agreement; and

(3) Withholding requirements. Permit such withholding without incurring any obligation to pay a late payment penalty if--

(i) A notice conforming to the standards of paragraph (g) of this clause previously has been furnished to the subcontractor; and

(ii) The Contractor furnishes to the Contracting Officer a copy of any notice issued by a Contractor pursuant to paragraph (d)(3)(i) of this clause.

(e) Subcontractor withholding procedures. If a Contractor, after making a request for payment to the Government but before making a payment to a subcontractor for the subcontractor's performance covered by the payment request, discovers that all or a portion of the payment otherwise due such subcontractor is subject to withholding from the subcontractor in accordance with the subcontract agreement, then the Contractor shall--

(1) Subcontractor notice. Furnish to the subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon ascertaining the cause giving rise to a withholding, but prior to the due date for subcontractor payment;

(2) Contracting Officer notice. Furnish to the Contracting Officer, as soon as practicable, a copy of the notice furnished to the subcontractor pursuant to paragraph (e)(1) of this clause;

(3) Subcontractor progress payment reduction. Reduce the subcontractor's progress payment by an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (e)(1) of this clause;

(4) Subsequent subcontractor payment. Pay the subcontractor as soon as practicable after the correction of the identified subcontract performance deficiency, and--

(i) Make such payment within--

(A) Seven days after correction of the identified subcontract performance deficiency (unless the funds therefor must be recovered from the Government because of a reduction under paragraph (e)(5)(i)) of this clause; or

(B) Seven days after the Contractor recovers such funds from the Government; or

(ii) Incur an obligation to pay a late payment interest penalty computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under 41 U.S.C. 7109 in effect at the time the Contractor accrues the obligation to pay an interest penalty;

(5) Notice to Contracting Officer. Notify the Contracting Officer upon--

(i) Reduction of the amount of any subsequent certified application for payment; or

(ii) Payment to the subcontractor of any withheld amounts of a progress payment, specifying--

(A) The amounts withheld under paragraph (e)(1) of this clause; and

(B) The dates that such withholding began and ended; and

(6) Interest to Government. Be obligated to pay to the Government an amount equal to interest on the withheld payments (computed in the manner provided in 31 U.S.C. 3903(c)(1)), from the 8th day after receipt of the withheld amounts from the Government until--

(i) The day the identified subcontractor performance deficiency is corrected; or

(ii) The date that any subsequent payment is reduced under paragraph (e)(5)(i) of this clause.

(f) Third-party deficiency reports—

(1) Withholding from subcontractor. If a Contractor, after making payment to a first-tier subcontractor, receives from a supplier or subcontractor of the first-tier subcontractor (hereafter referred to as a “second-tier subcontractor”) a written notice in accordance with 40 U.S.C. 3133, asserting a deficiency in such first-tier subcontractor's performance under the contract for which the Contractor may be ultimately liable, and the Contractor determines that all or a portion of future payments otherwise due such first-tier subcontractor is subject to withholding in accordance with the subcontract agreement, the Contractor may, without incurring an obligation to pay an interest penalty under paragraph (e)(6) of this clause--

(i) Furnish to the first-tier subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon making such determination; and

(ii) Withhold from the first-tier subcontractor's next available progress payment or payments an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (f)(1)(i) of this clause.

(2) Subsequent payment or interest charge. As soon as practicable, but not later than 7 days after receipt of satisfactory written notification that the identified subcontract performance deficiency has been corrected, the Contractor shall--

(i) Pay the amount withheld under paragraph (f)(1)(ii) of this clause to such first-tier subcontractor; or

(ii) Incur an obligation to pay a late payment interest penalty to such first-tier subcontractor computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of 41 U.S.C. 7109 in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(g) Written notice of subcontractor withholding. The Contractor shall issue a written notice of any withholding to a subcontractor (with a copy furnished to the Contracting Officer), specifying--

(1) The amount to be withheld;

(2) The specific causes for the withholding under the terms of the subcontract; and

(3) The remedial actions to be taken by the subcontractor in order to receive payment of the amounts withheld.

(h) Subcontractor payment entitlement. The Contractor may not request payment from the Government of any amount withheld or retained in accordance with paragraph (d) of this clause until such time as the Contractor has determined and certified to the Contracting Officer that the subcontractor is entitled to the payment of such amount.

(i) Prime-subcontractor disputes. A dispute between the Contractor and subcontractor relating to the amount or entitlement of a subcontractor to a payment or a late payment interest penalty under a clause included in the subcontract pursuant to paragraph (c) of this clause does not constitute a dispute to which the Government is a party. The Government may not be interpleaded in any judicial or administrative proceeding involving such a dispute.

(j) Preservation of prime-subcontractor rights. Except as provided in paragraph (i) of this clause, this clause shall not limit or impair any contractual, administrative, or judicial remedies otherwise available to the Contractor or a subcontractor in the event of a dispute involving late payment or nonpayment by the Contractor or deficient subcontract performance or nonperformance by a subcontractor.

(k) Non-recourse for prime contractor interest penalty. The Contractor's obligation to pay an interest penalty to a subcontractor pursuant to the clauses included in a subcontract under paragraph (c) of this clause shall not be construed to be an obligation of the Government for such interest penalty. A cost-reimbursement claim may not include any amount for reimbursement of such interest penalty.

(l) Overpayments. If the Contractor becomes aware of a duplicate contract financing or invoice payment or that the Government has otherwise overpaid on a contract financing or invoice payment, the Contractor shall--

(1) Remit the overpayment amount to the payment office cited in the contract along with a description of the overpayment including the--

(i) Circumstances of the overpayment (e.g., duplicate payment, erroneous payment, liquidation errors, date(s) of overpayment);

(ii) Affected contract number and delivery order number if applicable;

(iii) Affected line item or subline item, if applicable; and

(iv) Contractor point of contact.

(2) Provide a copy of the remittance and supporting documentation to the Contracting Officer.

(End of clause)

52.232-33 PAYMENT BY ELECTRONIC FUNDS TRANSFER—SYSTEM FOR AWARD MANAGEMENT (JULY 2013)

(a) Method of payment. (1) All payments by the Government under this contract shall be made by electronic funds transfer (EFT), except as provided in paragraph (a)(2) of this clause. As used in this clause, the term “EFT” refers to the funds transfer and may also include the payment information transfer.

(2) In the event the Government is unable to release one or more payments by EFT, the Contractor agrees to either--

(i) Accept payment by check or some other mutually agreeable method of payment; or

(ii) Request the Government to extend the payment due date until such time as the Government can make payment by EFT (but see paragraph (d) of this clause).

(b) Contractor's EFT information. The Government shall make payment to the Contractor using the EFT information contained in the System for Award Management (SAM) database. In the event that the EFT information changes, the Contractor shall be responsible for providing the updated information to the SAM database.

(c) Mechanisms for EFT payment. The Government may make payment by EFT through either the Automated Clearing House (ACH) network, subject to the rules of the National Automated

Clearing House Association, or the Fedwire Transfer System. The rules governing Federal payments through the ACH are contained in 31 CFR part 210.

(d) Suspension of payment. If the Contractor's EFT information in the SAM database is incorrect, then the Government need not make payment to the Contractor under this contract until correct EFT information is entered into the SAM database; and any invoice or contract financing request shall be deemed not to be a proper invoice for the purpose of prompt payment under this contract. The prompt payment terms of the contract regarding notice of an improper invoice and delays in accrual of interest penalties apply.

(e) Liability for uncompleted or erroneous transfers. (1) If an uncompleted or erroneous transfer occurs because the Government used the Contractor's EFT information incorrectly, the Government remains responsible for--

(i) Making a correct payment;

(ii) Paying any prompt payment penalty due; and

(iii) Recovering any erroneously directed funds.

(2) If an uncompleted or erroneous transfer occurs because the Contractor's EFT information was incorrect, or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and--

(i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or

(ii) If the funds remain under the control of the payment office, the Government shall not make payment, and the provisions of paragraph (d) of this clause shall apply.

(f) EFT and prompt payment. A payment shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of this contract if, in the EFT payment transaction instruction released to the Federal Reserve System, the date specified for settlement of the payment is on or before the prompt payment due date, provided the specified payment date is a valid date under the rules of the Federal Reserve System.

(g) EFT and assignment of claims. If the Contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Contractor shall require as a condition of any such assignment, that the assignee shall register separately in the SAM database and shall be paid by EFT in accordance with the terms of this clause. Notwithstanding any other requirement of this contract, payment to an ultimate recipient other than the Contractor, or a financial institution properly recognized under an assignment of claims pursuant to subpart 32.8, is not permitted. In all respects, the requirements of this clause shall apply to the assignee as if it were the Contractor. EFT information that shows the ultimate recipient of the transfer to be other

than the Contractor, in the absence of a proper assignment of claims acceptable to the Government, is incorrect EFT information within the meaning of paragraph (d) of this clause.

(h) Liability for change of EFT information by financial agent. The Government is not liable for errors resulting from changes to EFT information made by the Contractor's financial agent.

(i) Payment information. The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall mail the payment information to the remittance address contained in the SAM database.

(End of Clause)

52.232-39 UNENFORCEABILITY OF UNAUTHORIZED OBLIGATIONS (JUN 2013)

(a) Except as stated in paragraph (b) of this clause, when any supply or service acquired under this contract is subject to any End User License Agreement (EULA), Terms of Service (TOS), or similar legal instrument or agreement, that includes any clause requiring the Government to indemnify the Contractor or any person or entity for damages, costs, fees, or any other loss or liability that would create an Anti-Deficiency Act violation (31 U.S.C. 1341), the following shall govern:

(1) Any such clause is unenforceable against the Government.

(2) Neither the Government nor any Government authorized end user shall be deemed to have agreed to such clause by virtue of it appearing in the EULA, TOS, or similar legal instrument or agreement. If the EULA, TOS, or similar legal instrument or agreement is invoked through an "I agree" click box or other comparable mechanism (e.g., "click-wrap" or "browse-wrap" agreements), execution does not bind the Government or any Government authorized end user to such clause.

(3) Any such clause is deemed to be stricken from the EULA, TOS, or similar legal instrument or agreement.

(b) Paragraph (a) of this clause does not apply to indemnification by the Government that is expressly authorized by statute and specifically authorized under applicable agency regulations and procedures.

(End of clause)

52.232-40 PROVIDING ACCELERATED PAYMENTS TO SMALL BUSINESS
SUBCONTRACTORS (DEC 2013)

(a) Upon receipt of accelerated payments from the Government, the Contractor shall make accelerated payments to its small business subcontractors under this contract, to the maximum extent practicable and prior to when such payment is otherwise required under the applicable contract or subcontract, after receipt of a proper invoice and all other required documentation from the small business subcontractor.

(b) The acceleration of payments under this clause does not provide any new rights under the Prompt Payment Act.

(c) Include the substance of this clause, including this paragraph (c), in all subcontracts with small business concerns, including subcontracts with small business concerns for the acquisition of commercial items.

(End of clause)

52.233-1 DISPUTES. (MAY 2014) -- ALTERNATE I (DEC 1991)

(a) This contract is subject to 41 U.S.C. chapter 71, Contract Disputes.

(b) Except as provided in 41 U.S.C. chapter 71, all disputes arising under or relating to this contract shall be resolved under this clause.

(c) Claim, as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. However, a written demand or written assertion by the Contractor seeking the payment of money exceeding \$100,000 is not a claim under 41 U.S.C. chapter 71 until certified. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under 41 U.S.C. chapter 71. The submission may be converted to a claim under 41 U.S.C. chapter 71, by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

(d)(1) A claim by the Contractor shall be made in writing and, unless otherwise stated in this contract, submitted within 6 years after accrual of the claim to the Contracting Officer for a written decision. A claim by the Government against the Contractor shall be subject to a written decision by the Contracting Officer.

(2) (i) Contractors shall provide the certification specified in subparagraph (d)(2)(iii) of this clause when submitting any claim exceeding \$100,000.

(ii) The certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.

(iii) The certification shall state as follows: "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable; and that I am authorized to certify the claim on behalf of the Contractor.

(3) The certification may be executed by any person authorized to bind the Contractor with respect to the claim.

(e) For Contractor claims of \$100,000 or less, the Contracting Officer must, if requested in writing by the Contractor, render a decision within 60 days of the request. For Contractor-certified claims over \$100,000, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.

(f) The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in 41 U.S.C. chapter 71.

(g) If the claim by the Contractor is submitted to the Contracting Officer or a claim by the Government is presented to the Contractor, the parties, by mutual consent, may agree to use ADR. If the Contractor refuses an offer for alternative disputes resolution, the Contractor shall inform the Contracting Officer, in writing, of the Contractor's specific reasons for rejecting the request. When using arbitration conducted pursuant to 5 U.S.C. 575-580, or when using any other ADR technique that the agency elects to handle in accordance with the ADRA, any claim, regardless of amount, shall be accompanied by the certification described in subparagraph (d)(2)(iii) of this clause, and executed in accordance with subparagraph (d)(3) of this clause.

(h) The Government shall pay interest on the amount found due and unpaid from (1) the date the Contracting Officer receives the claim (certified, if required); or (2) the date that payment otherwise would be due, if that date is later, until the date of payment. With regard to claims having defective certifications, as defined in (FAR) 48 CFR 33.201, interest shall be paid from the date that the Contracting Officer initially receives the claim. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.

(i) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under or relating to the contract, and comply with any decision of the Contracting Officer.

(End of clause)

52.233-3 PROTEST AFTER AWARD (AUG. 1996)

(a) Upon receipt of a notice of protest (as defined in FAR 33.101) or a determination that a protest is likely (see FAR 33.102(d)), the Contracting Officer may, by written order to the Contractor, direct the Contractor to stop performance of the work called for by this contract. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Upon receipt of the final decision in the protest, the Contracting Officer shall either--

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this contract.

(b) If a stop-work order issued under this clause is canceled either before or after a final decision in the protest, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if--

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to an adjustment within 30 days after the end of the period of work stoppage; provided, that if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon a proposal at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(e) The Government's rights to terminate this contract at any time are not affected by action taken under this clause.

(f) If, as the result of the Contractor's intentional or negligent misstatement, misrepresentation, or miscertification, a protest related to this contract is sustained, and the Government pays costs, as provided in FAR 33.102(b)(2) or 33.104(h)(1), the Government may require the Contractor to reimburse the Government the amount of such costs. In addition to any other remedy available, and pursuant to the requirements of Subpart 32.6, the Government may collect this debt by offsetting the amount against any payment due the Contractor under any contract between the Contractor and the Government.

(End of clause)

52.233-4 APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM (OCT 2004)

United States law will apply to resolve any claim of breach of this contract.

(End of clause)

52.236-1 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984)

The Contractor shall perform on the site, and with its own organization, work equivalent to at least **forty (40%)** percent of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government.

(End of clause)

52.236-2 DIFFERING SITE CONDITIONS (APR 1984)

(a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of

(1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or

(2) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.

(b) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the contract modified in writing accordingly.

(c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in (a) above for giving written notice may be extended by the Contracting Officer.

(d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

(End of clause)

52.236-3 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK (APR 1984)

(a) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to

(1) conditions bearing upon transportation, disposal, handling, and storage of materials;

(2) the availability of labor, water, electric power, and roads;

(3) uncertainties of weather, river stages, tides, or similar physical conditions at the site;

(4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during work performance. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Government, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the Government.

(b) The Government assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the Government. Nor does the Government assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract.

(End of clause)

52.236-5 MATERIAL AND WORKMANSHIP (APR 1984)

(a) All equipment, material, and articles incorporated into the work covered by this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. References in the specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of the Contracting Officer, is equal to that named in the specifications, unless otherwise specifically provided in this

contract.

(b) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the machinery and mechanical and other equipment. When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the material or articles which the Contractor contemplates incorporating into the work. When requesting approval, the Contractor shall provide full information concerning the material or articles. When directed to do so, the Contractor shall submit samples for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.

(c) All work under this contract shall be performed in a skillful and workmanlike manner. The Contracting Officer may require, in writing, that the Contractor remove from the work any employee the Contracting Officer deems incompetent, careless, or otherwise objectionable.

(End of clause)

52.236-6 SUPERINTENDENCE BY THE CONTRACTOR (APR 1984)

At all times during performance of this contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the worksite a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor.

(End of clause)

52.236-7 PERMITS AND RESPONSIBILITIES (NOV 1991)

The Contractor shall, without additional expense to the Government, be responsible for obtaining any necessary licenses and permits, and for complying with any Federal, State, and municipal laws, codes, and regulations applicable to the performance of the work. The Contractor shall also be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.

(End of clause)

52.236-8 OTHER CONTRACTS (APR 1984)

The Government may undertake or award other contracts for additional work at or near the site

of the work under this contract. The Contractor shall fully cooperate with the other contractors and with Government employees and shall carefully adapt scheduling and performing the work under this contract to accommodate the additional work, heeding any direction that may be provided by the Contracting Officer. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by Government employees.

(End of clause)

52.236-9 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS (APR 1984)

(a) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.

(b) The Contractor shall protect from damage all existing improvements and utilities

(1) at or near the work site, and

(2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

(End of clause)

52.236-10 OPERATIONS AND STORAGE AREAS (APR 1984)

(a) The Contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the Contracting Officer. The Contractor shall hold and save the Government, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.

(b) Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the Government. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the

Contractor at its expense upon completion of the work. With the written consent of the Contracting Officer, the buildings and utilities may be abandoned and need not be removed.

(c) The Contractor shall, under regulations prescribed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

(End of clause)

52.236-11 USE AND POSSESSION PRIOR TO COMPLETION (APR 1984)

(a) The Government shall have the right to take possession of or use any completed or partially completed part of the work. Before taking possession of or using any work, the Contracting Officer shall furnish the Contractor a list of items of work remaining to be performed or corrected on those portions of the work that the Government intends to take possession of or use. However, failure of the Contracting Officer to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the contract. The Government's possession or use shall not be deemed an acceptance of any work under the contract.

(b) While the Government has such possession or use, the Contractor shall be relieved of the responsibility for the loss of or damage to the work resulting from the Government's possession or use, notwithstanding the terms of the clause in this contract entitled "Permits and Responsibilities." If prior possession or use by the Government delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment shall be made in the contract price or the time of completion, and the contract shall be modified in writing accordingly.

(End of clause)

52.236-12 CLEANING UP (APR 1984)

The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. Before completing the work, the Contractor shall remove from the work and premises any rubbish, tools, scaffolding, equipment, and materials that are not the property of the Government. Upon completing the work, the Contractor shall leave the work area in a clean, neat, and orderly condition satisfactory to the Contracting Officer.

(End of clause)

52.236-13 ACCIDENT PREVENTION (NOV 1991)

- (a) The Contractor shall provide and maintain work environments and procedures which will
- (1) safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to Contractor operations and activities;
 - (2) avoid interruptions of Government operations and delays in project completion dates; and
 - (3) control costs in the performance of this contract.
- (b) For these purposes on contracts for construction or dismantling, demolition, or removal of improvements, the Contractor shall-
- (1) Provide appropriate safety barricades, signs, and signal lights;
 - (2) Comply with the standards issued by the Secretary of Labor at 29 CFR Part 1926 and 29 CFR Part 1910; and
 - (3) Ensure that any additional measures the Contracting Officer determines to be reasonably necessary for the purposes are taken.
- (c) If this contract is for construction or dismantling, demolition or removal of improvements with any Department of Defense agency or component, the Contractor shall comply with all pertinent provisions of the latest version of U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, in effect on the date of the solicitation.
- (d) Whenever the Contracting Officer becomes aware of any noncompliance with these requirements or any condition which poses a serious or imminent danger to the health or safety of the public or Government personnel, the Contracting Officer shall notify the Contractor orally, with written confirmation, and request immediate initiation of corrective action. This notice, when delivered to the Contractor or the Contractor's representative at the work site, shall be deemed sufficient notice of the noncompliance and that corrective action is required. After receiving the notice, the Contractor shall immediately take corrective action. If the Contractor fails or refuses to promptly take corrective action, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any stop work order issued under this clause.
- (e) The Contractor shall insert this clause, including this paragraph (e), with appropriate changes in the designation of the parties, in subcontracts.
- (End of clause)

52.236-15 SCHEDULES FOR CONSTRUCTION CONTRACTS (APR 1984)

(a) The Contractor shall, within five days after the work commences on the contract or another period of time determined by the Contracting Officer, prepare and submit to the Contracting Officer for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring materials, plant, and equipment). The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may withhold approval of progress payments until the Contractor submits the required schedule.

(b) The Contractor shall enter the actual progress on the chart as directed by the Contracting Officer, and upon doing so shall immediately deliver three copies of the annotated schedule to the Contracting Officer. If, in the opinion of the Contracting Officer, the Contractor falls behind the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by the Contracting Officer, without additional cost to the Government. In this circumstance, the Contracting Officer may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for approval any supplementary schedule or schedules in chart form as the Contracting Officer deems necessary to demonstrate how the approved rate of progress will be regained.

(c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the default terms of this contract.

(End of clause)

52.236-21 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (FEB 1997)

(a) The Contractor shall keep on the work site a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting

Officer shall furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.

(b) Wherever in the specifications or upon the drawings the words "directed", "required", "ordered", "designated", "prescribed", or words of like import are used, it shall be understood that the "direction", "requirement", "order", "designation", or "prescription", of the Contracting Officer is intended and similarly the words "approved", "acceptable", "satisfactory", or words of like import shall mean "approved by," or "acceptable to", or "satisfactory to" the Contracting Officer, unless otherwise expressly stated.

(c) Where "as shown," as indicated", "as detailed", or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provide complete in place," that is "furnished and installed".

(d) Shop drawings means drawings, submitted to the Government by the Contractor, subcontractor, or any lower tier subcontractor pursuant to a construction contract, showing in detail (1) the proposed fabrication and assembly of structural elements, and (2) the installation (i.e., fit, and attachment details) of materials or equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the contractor to explain in detail specific portions of the work required by the contract. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(e) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the Government's reasons therefor. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with (f) below.

(f) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Contracting Officer approves any such variation, the Contracting Officer shall issue an appropriate contract modification, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.

(g) The Contractor shall submit to the Contracting Officer for approval four copies (unless otherwise indicated) of all shop drawings as called for under the various headings of these specifications. Three sets (unless otherwise indicated) of all shop drawings, will be retained by the Contracting Officer and one set will be returned to the Contractor.

(End of clause)

52.236-26 PRECONSTRUCTION CONFERENCE (FEB 1995)

If the Contracting Officer decides to conduct a preconstruction conference, the successful offeror will be notified and will be required to attend. The Contracting Officer's notification will include specific details regarding the date, time, and location of the conference, any need for attendance by subcontractors, and information regarding the items to be discussed.

(End of clause)

52.242-5 PAYMENTS TO SMALL BUSINESS SUBCONTRACTORS (JAN 2017)

(a) Definitions. As used in this clause--

Reduced payment means a payment that is for less than the amount agreed upon in a subcontract in accordance with its terms and conditions, for supplies and services for which the Government has paid the prime contractor.

Untimely payment means a payment that is more than 90 days past due under the terms and conditions of a subcontract, for supplies and services for which the Government has paid the prime contractor.

(b) Notice. The Contractor shall notify the Contracting Officer, in writing, not later than 14 days after--

(1) A small business subcontractor was entitled to payment under the terms and conditions of the subcontract; and

(2) The Contractor--

(i) Made a reduced or untimely payment to the small business subcontractor; or

(ii) Failed to make a payment, which is now untimely.

(c) Content of notice. The Contractor shall include the reason(s) for making the reduced or untimely payment in any notice required under paragraph (b) of this clause.

(End of clause)

52.242-13 BANKRUPTCY (JUL 1995)

In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish, by certified mail or electronic commerce method authorized by the contract, written notification of the bankruptcy to the Contracting Officer

responsible for administering the contract. This notification shall be furnished within five days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of Government contract numbers and contracting offices for all Government contracts against which final payment has not been made. This obligation remains in effect until final payment under this contract.

(End of clause)

52.242-14 SUSPENSION OF WORK (APR 1984)

(a) The Contracting Officer may order the Contractor, in writing, to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the convenience of the Government.

(b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contracting Officer in the administration of this contract, or (2) by the Contracting Officer's failure to act within the time specified in this contract (or within a reasonable time if not specified), an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by the unreasonable suspension, delay, or interruption, and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an equitable adjustment is provided for or excluded under any other term or condition of this contract.

(c) A claim under this clause shall not be allowed—

(1) For any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order); and

(2) Unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the contract.

(End of clause)

52.243-4 CHANGES (JUN 2007)

(a) The Contracting Officer may, at any time, without notice to the sureties, if any, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract, including changes--

- (1) In the specifications (including drawings and designs);
- (2) In the method or manner of performance of the work;
- (3) In the Government-furnished property or services; or
- (4) Directing acceleration in the performance of the work.

(b) Any other written or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Contracting Officer written notice stating

- (1) the date, circumstances, and source of the order and
- (2) that the Contractor regards the order as a change order.

(c) Except as provided in this clause, no order, statement, or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.

(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for an adjustment based on defective specifications, no adjustment for any change under paragraph (b) of this clause shall be made for any costs incurred more than 20 days before the Contractor gives written notice as required. In the case of defective specifications for which the Government is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.

(e) The Contractor must assert its right to an adjustment under this clause within 30 days after

(1) receipt of a written change order under paragraph (a) of this clause or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting to the Contracting Officer a written statement describing the general nature and amount of the proposal, unless this period is extended by the Government. The statement of proposal for adjustment may be included in the notice under paragraph (b) above.

(f) No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.

(End of clause)

52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS (NOV 2017)

(a) Definitions. As used in this clause—

“Commercial item” and “commercially available off-the-shelf item” have the meanings contained in Federal Acquisition Regulation 2.101, Definitions.

“Subcontract” includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or non-developmental items as components of items to be supplied under this contract.

(c)(1) The Contractor shall insert the following clauses in subcontracts for commercial items:

(i) 52.203-13, Contractor Code of Business Ethics and Conduct (Oct 2015) (41 U.S.C. 3509), if the subcontract exceeds \$5.5 million and has a performance period of more than 120 days. In altering this clause to identify the appropriate parties, all disclosures of violation of the civil False Claims Act or of Federal criminal law shall be directed to the agency Office of the Inspector General, with a copy to the Contracting Officer.

(ii) 52.203-15, Whistleblower Protections Under the American Recovery and Reinvestment Act of 2009 (Jun 2010) (Section 1553 of Pub. L. 111-5), if the subcontract is funded under the Recovery Act.

(iii) 52.203-19, Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements (JAN 2017).

(iv) 52.204-21, Basic Safeguarding of Covered Contractor Information Systems (JUN 2016), other than subcontracts for commercially available off-the-shelf items, if flow down is required in accordance with paragraph (c) of FAR clause 52.204-21.

(v) 52.219-8, Utilization of Small Business Concerns (Nov 2016) (15 U.S.C. 637(d)(2) and (3)), if the subcontract offers further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$700,000 (\$1.5 million for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(vi) 52.222-21, Prohibition of Segregated Facilities (Apr 2015).

(vii) 52.222-26, Equal Opportunity (Sept 2016) (E.O. 11246).

(viii) 52.222-35, Equal Opportunity for Veterans (Oct 2015) (38 U.S.C. 4212(a));

(ix) 52.222-36, Equal Opportunity for Workers with Disabilities (Jul 2014) (29 U.S.C. 793).

(x) 52.222-37, Employment Reports on Veterans (Feb 2016) (38 U.S.C. 4212).

(xi) 52.222-40, Notification of Employee Rights Under the National Labor Relations Act (DEC 2010) (E.O. 13496), if flow down is required in accordance with paragraph (f) of FAR clause 52.222-40.

(xii)(A) 52.222-50, Combating Trafficking in Persons (Mar 2015) (22 U.S.C. chapter 78 and E.O. 13627).

(B) Alternate I (Mar 2015) of 52.222-50 (22 U.S.C. chapter 78 and E.O. 13627).

(xiii) 52.222-55, Minimum Wages under Executive Order 13658 (DEC 2015), if flowdown is required in accordance with paragraph (k) of FAR clause 52.222-55.

(xiv) 52.222-62, Paid Sick Leave Under Executive Order 13706 (JAN 2017) (E.O. 13706), if flowdown is required in accordance with paragraph (m) of FAR clause 52.222-62.

(xv)(A) 52.224-3, Privacy Training (JAN 2017) (5 U.S.C. 552a) if flow down is required in accordance with 52.224-3(f).

(B) Alternate I (JAN 2017) of 52.224-3, if flow down is required in accordance with 52.224-3(f) and the agency specifies that only its agency-provided training is acceptable).

(xvi) 52.225-26, Contractors Performing Private Security Functions Outside the United States (Oct 2016) (Section 862, as amended, of the National Defense Authorization Act for Fiscal Year 2008; 10 U.S.C. 2302 Note).

(xvii) 52.232-40, Providing Accelerated Payments to Small Business Subcontractors (Dec 2013), if flow down is required in accordance with paragraph (c) of FAR clause 52.232-40.

(xviii) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) (46 U.S.C. App. 1241 and 10 U.S.C. 2631), if flow down is required in accordance with paragraph (d) of FAR clause 52.247-64).

(2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(End of clause)

52.246-12 INSPECTION OF CONSTRUCTION (AUG 1996)

(a) Definition. "Work" includes, but is not limited to, materials, workmanship, and manufacture and fabrication of components.

(b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. The Contractor shall maintain complete inspection records and make them available to the Government. All work shall be conducted under the general direction of the Contracting Officer and is subject to Government inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.

(c) Government inspections and tests are for the sole benefit of the Government and do not--

(1) Relieve the Contractor of responsibility for providing adequate quality control measures;

(2) Relieve the Contractor of responsibility for damage to or loss of the material before acceptance;

(3) Constitute or imply acceptance; or

(4) Affect the continuing rights of the Government after acceptance of the completed work under paragraph (i) of this section.

(d) The presence or absence of a Government inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specification without the Contracting Officer's written authorization.

(e) The Contractor shall promptly furnish, at no increase in contract price, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Contracting Officer. The Government may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. The Government shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the contract.

(f) The Contractor shall, without charge, replace or correct work found by the Government not to conform to contract requirements, unless in the public interest the Government consents to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

(g) If the Contractor does not promptly replace or correct rejected work, the Government may (1) by contract or otherwise, replace or correct the work and charge the cost to the Contractor or (2) terminate for default the Contractor's right to proceed.

(h) If, before acceptance of the entire work, the Government decides to examine already completed work by removing it or tearing it out, the Contractor, on request, shall promptly furnish all necessary facilities, labor, and material. If the work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray the expenses of the examination and of satisfactory reconstruction.

However, if the work is found to meet contract requirements, the Contracting Officer shall make an equitable adjustment for the additional services involved in the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.

(i) Unless otherwise specified in the contract, the Government shall accept, as promptly as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the Government's rights under any warranty or guarantee.

(End of clause)

52.248-3 VALUE ENGINEERING--CONSTRUCTION (OCT 2015)

(a) General. The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECP's) voluntarily. The Contractor shall share in any instant contract savings realized from accepted VECP's, in accordance with paragraph (f) below.

(b) Definitions. "Collateral costs," as used in this clause, means agency costs of operation, maintenance, logistic support, or Government-furnished property.

"Collateral savings," as used in this clause, means those measurable net reductions resulting from a VECP in the agency's overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.

"Contractor's development and implementation costs," as used in this clause, means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the Contractor incurs to make the contractual changes required by Government acceptance of a VECP.

"Government costs," as used in this clause, means those agency costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistic support. The term does not include the normal administrative costs of processing the VECP.

"Instant contract savings," as used in this clause, means the estimated reduction in Contractor cost of performance resulting from acceptance of the VECP, minus allowable Contractor's development and implementation costs, including subcontractors' development and implementation costs (see paragraph (h) below).

"Value engineering change proposal (VECP)" means a proposal that--

(1) Requires a change to this, the instant contract, to implement; and

(2) Results in reducing the contract price or estimated cost without impairing essential functions or characteristics; provided, that it does not involve a change--

(i) In deliverable end item quantities only; or

(ii) To the contract type only.

(c) VECP preparation. As a minimum, the Contractor shall include in each VECP the information described in subparagraphs(c) (1) through (7) below. If the proposed change is affected by contractually required configuration management or similar procedures, the instructions in those procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:

(1) A description of the difference between the existing contract requirement and that proposed, the comparative advantages and disadvantages of each, a justification when an item's function or characteristics are being altered, and the effect of the change on the end item's performance.

(2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.

(3) A separate, detailed cost estimate for

(i) the affected portions of the existing contract requirement and

(ii) the VECP. The cost reduction associated with the VECP shall take into account the Contractor's allowable development and implementation costs, including any amount attributable to subcontracts under paragraph (h) below.

(4) A description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and support costs.

(5) A prediction of any effects the proposed change would have on collateral costs to the agency.

(6) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.

(7) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved, and previous Government actions, if known.

(d) Submission. The Contractor shall submit VECP's to the Resident Engineer at the worksite, with a copy to the Contracting Officer.

(e) Government action.

(1) The Contracting Officer will notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required, the Contracting Officer will notify the Contractor within the 45-day period and provide the reason for the delay and the expected date of the decision. The Government will process VECP's expeditiously; however, it shall not be liable for any delay in acting upon a VECP.

If the VECP is not accepted, the Contracting Officer will notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any VECP, in whole or in part, at any time before it is accepted by the Government. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.

Any VECP may be accepted, in whole or in part, by the Contracting Officer's award of a modification to this contract citing this clause. The Contracting Officer may accept the VECP, even though an agreement on price reduction has not been reached, by issuing the Contractor a notice to proceed with the change. Until a notice to proceed is issued or a contract modification applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the Contracting Officer.

(f) Sharing.

(1) Rates. The Government's share of savings is determined by subtracting Government costs from instant contract savings and multiplying the result by

(i) 45 percent for fixed-price contracts or

(ii) 75 percent for cost-reimbursement contracts.

(2) Payment. Payment of any share due the Contractor for use of a VECP on this contract shall be authorized by a modification to this contract to--

(i) Accept the VECP;

(ii) Reduce the contract price or estimated cost by the amount of instant contract savings; and

(iii) Provide the Contractor's share of savings by adding the amount calculated to the contract price or fee.

(g) Collateral savings. If a VECP is accepted, the Contracting Officer will increase the instant contract amount by 20 percent of any projected collateral savings determined to be realized in a typical year of use after subtracting any Government costs not previously offset. However, the Contractor's share of collateral savings will not exceed the contract's firm-fixed-price or estimated cost, at the time the VECP is accepted, or \$100,000, whichever is greater. The Contracting Officer is the sole determiner of the amount of collateral savings.

(h) Subcontracts. The Contractor shall include an appropriate value engineering clause in any subcontract of \$70,000 or more and may include one in subcontracts of lesser value. In computing any adjustment in this contract's price under paragraph (f) above, the Contractor's allowable development and implementation costs shall include any subcontractor's allowable development and implementation costs clearly resulting from a VECP accepted by the Government under this contract, but shall exclude any value engineering incentive payments to a subcontractor. The Contractor may choose any arrangement for subcontractor value engineering incentive payments; provided, that these payments shall not reduce the Government's share of the savings resulting from the VECP.

(i) Data. The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on the affected parts:

"These data, furnished under the Value Engineering-- Construction clause of contract , shall not be disclosed outside the Government or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal submitted under the clause. This restriction does not limit the Government's right to use information contained in these data if it has been obtained or is otherwise available from the Contractor or from another source without limitations." If a VECP is accepted, the Contractor hereby grants the Government unlimited rights in the VECP and supporting data, except that, with respect to data qualifying and submitted as limited rights technical data, the Government shall have the rights specified in the contract modification implementing the VECP and shall appropriately mark the data. (The terms "unlimited rights" and "limited rights" are defined in Part 27 of the Federal Acquisition Regulation.)

(End of clause)

52.249-2 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE) (APR 2012) - ALTERNATE I (SEP 1996)

(a) The Government may terminate performance of work under this contract in whole or, from time to time, in part if the Contracting Officer determines that a termination is in the Government's interest. The Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying the extent of termination and the effective date.

(b) After receipt of a Notice of Termination, and except as directed by the Contracting Officer, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:

(1) Stop work as specified in the notice.

(2) Place no further subcontracts or orders (referred to as subcontracts in this clause) for materials, services, or facilities, except as necessary to complete the continued portion of the contract.

- (3) Terminate all subcontracts to the extent they relate to the work terminated.
- (4) Assign to the Government, as directed by the Contracting Officer, all right, title, and interest of the Contractor under the subcontracts terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.
- (5) With approval or ratification to the extent required by the Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts; the approval or ratification will be final for purposes of this clause.
- (6) As directed by the Contracting Officer, transfer title and deliver to the Government (i) the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated, and (ii) the completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would be required to be furnished to the Government.
- (7) Complete performance of the work not terminated.
- (8) Take any action that may be necessary, or that the Contracting Officer may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the Government has or may acquire an interest.
- (9) Use its best efforts to sell, as directed or authorized by the Contracting Officer, any property of the types referred to in subparagraph (b)(6) of this clause; provided, however, that the Contractor (i) is not required to extend credit to any purchaser and (ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Contracting Officer. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Government under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Contracting Officer.
- (c) The Contractor shall submit complete termination inventory schedules no later than 120 days from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 120-day period.
- (d) After expiration of the plant clearance period as defined in Subpart 49.001 of the Federal Acquisition Regulation, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the Contracting Officer. The Contractor may request the Government to remove those items or enter into an agreement for their storage. Within 15 days, the Government will accept title to those items and remove them or enter into a storage agreement. The Contracting Officer may verify the list upon removal of the items, or if stored, within 45 days from submission of the list, and shall correct the list, as necessary, before final settlement.
- (e) After termination, the Contractor shall submit a final termination settlement proposal to the Contracting Officer in the form and with the certification prescribed by the Contracting Officer.

The Contractor shall submit the proposal promptly, but no later than 1 year from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 1-year period. However, if the Contracting Officer determines that the facts justify it, a termination settlement proposal may be received and acted on after 1 year or any extension. If the Contractor fails to submit the proposal within the time allowed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.

(f) Subject to paragraph (e) of this clause, the Contractor and the Contracting Officer may agree upon the whole or any part of the amount to be paid or remaining to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. However, the agreed amount, whether under this paragraph (g) or paragraph (g) of this clause, exclusive of costs shown in subparagraph (g)(3) of this clause, may not exceed the total contract price as reduced by (1) the amount of payments previously made and (2) the contract price of work not terminated. The contract shall be modified, and the Contractor paid the agreed amount. Paragraph (g) of this clause shall not limit, restrict, or affect the amount that may be agreed upon to be paid under this paragraph.

(g) If the Contractor and Contracting Officer fail to agree on the whole amount to be paid the Contractor because of the termination of work, the Contracting Officer shall pay the Contractor the amounts determined as follows, but without duplication of any amounts agreed upon under paragraph (f) of this clause:

(1) For contract work performed before the effective date of termination, the total (without duplication of any items) of--

(i) The cost of this work;

(ii) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subdivision (g)(1)(i) of this clause; and

(iii) A sum, as profit on subdivision (g)(1)(i) of this clause, determined by the Contracting Officer under 49.202 of the Federal Acquisition Regulation, in effect on the date of this contract, to be fair and reasonable; however, if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, the Contracting Officer shall allow no profit under this subdivision (iii) and shall reduce the settlement to reflect the indicated rate of loss.

(2) The reasonable costs of settlement of the work terminated, including--

(i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;

(ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and

(iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.

(h) Except for normal spoilage, and except to the extent that the Government expressly assumed the risk of loss, the Contracting Officer shall exclude from the amounts payable to the Contractor under paragraph (g) of this clause, the fair value as determined by the Contracting Officer, for the loss of the Government property.

(i) The cost principles and procedures of Part 31 of the Federal Acquisition Regulation, in effect on the date of this contract, shall govern all costs claimed, agreed to, or determined under this clause.

(j) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraph (e), (g), or (l) of this clause, except that if the Contractor failed to submit the termination settlement proposal or request for equitable adjustment within the time provided in paragraph (e) or (l), respectively, and failed to request a time extension, there is no right of appeal.

(k) In arriving at the amount due the Contractor under this clause, there shall be deducted--

(1) All unliquidated advance or other payments to the Contractor under the terminated portion of this contract;

(2) Any claim which the Government has against the Contractor under this contract; and

(3) The agreed price for, or the proceeds of sale of, materials, supplies, or other things acquired by the Contractor or sold under the provisions of this clause and not recovered by or credited to the Government.

(l) If the termination is partial, the Contractor may file a proposal with the Contracting Officer for an equitable adjustment of the price(s) of the continued portion of the contract. The Contracting Officer shall make any equitable adjustment agreed upon. Any proposal by the Contractor for an equitable adjustment under this clause shall be requested within 90 days from the effective date of termination unless extended in writing by the Contracting Officer.

(m)(1) The Government may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated portion of the contract, if the Contracting Officer believes the total of these payments will not exceed the amount to which the Contractor will be entitled.

(2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the Government upon demand, together with interest computed at the rate established by the Secretary of the Treasury under 50 U.S.C. App. 1215(b)(2). Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or other disposition of

termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.

(n) Unless otherwise provided in this contract or by statute, the Contractor shall maintain all records and documents relating to the terminated portion of this contract for 3 years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this contract. The Contractor shall make these records and documents available to the Government, at the Contractor's office, at all reasonable times, without any direct charge. If approved by the Contracting Officer, photographs, microphotographs, or other authentic reproductions may be maintained instead of original records and documents.

(End of clause)

52.249-10 DEFAULT (FIXED-PRICE CONSTRUCTION) (APR 1984)

(a) If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will insure its completion within the time specified in this contract including any extension, or fails to complete the work within this time, the Government may, by written notice to the Contractor, terminate the right to proceed with the work (or the separable part of the work) that has been delayed. In this event, the Government may take over the work and complete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the Government resulting from the Contractor's refusal or failure to complete the work within the specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the Government in completing the work.

(b) The Contractor's right to proceed shall not be terminated nor the Contractor charged with damages under this clause, if—

(1) The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include—

(i) Acts of God or of the public enemy,

(ii) Acts of the Government in either its sovereign or contractual capacity,

(iii) Acts of another Contractor in the performance of a contract with the Government,

(iv) Fires,

(v) Floods,

(vi) Epidemics,

(vii) Quarantine restrictions,

(viii) Strikes,

(ix) Freight embargoes,

(x) Unusually severe weather, or

(xi) Delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers; and

(2) The Contractor, within 10 days from the beginning of any delay (unless extended by the Contracting Officer), notifies the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of delay. If, in the judgment of the Contracting Officer, the findings of fact warrant such action, the time for completing the work shall be extended. The findings of the Contracting Officer shall be final and conclusive on the parties, but subject to appeal under the Disputes clause.

(c) If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the Government.

(d) The rights and remedies of the Government in this clause are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

52.253-1 COMPUTER GENERATED FORMS (JAN 1991)

(a) Any data required to be submitted on a Standard or Optional Form prescribed by the Federal Acquisition Regulation (FAR) may be submitted on a computer generated version of the form, provided there is no change to the name, content, or sequence of the data elements on the form, and provided the form carries the Standard or Optional Form number and edition date.

(b) Unless prohibited by agency regulations, any data required to be submitted on an agency unique form prescribed by an agency supplement to the FAR may be submitted on a computer generated version of the form provided there is no change to the name, content, or sequence of the data elements on the form and provided the form carries the agency form number and edition date.

(i) If the Contractor submits a computer generated version of a form that is different than the required form, then the rights and obligations of the parties will be determined based on the content of the required form.

(End of clause)

252.201-7000 CONTRACTING OFFICER'S REPRESENTATIVE (DEC 1991)

(a) "Definition. Contracting officer's representative" means an individual designated in accordance with subsection 201.602-2 of the Defense Federal Acquisition Regulation Supplement and authorized in writing by the contracting officer to perform specific technical or administrative functions.

(b) If the Contracting Officer designates a contracting officer's representative (COR), the Contractor will receive a copy of the written designation. It will specify the extent of the COR's authority to act on behalf of the contracting officer. The COR is not authorized to make any commitments or changes that will affect price, quality, quantity, delivery, or any other term or condition of the contract.

(End of clause)

252.203-7000 REQUIREMENTS RELATING TO COMPENSATION OF FORMER DOD OFFICIALS (SEP 2011)

(a) Definition. Covered DoD official, as used in this clause, means an individual that--

(1) Leaves or left DoD service on or after January 28, 2008; and

(2)(i) Participated personally and substantially in an acquisition as defined in 41 U.S.C. 131 with a value in excess of \$10 million, and serves or served--

(A) In an Executive Schedule position under subchapter II of chapter 53 of Title 5, United States Code;

(B) In a position in the Senior Executive Service under subchapter VIII of chapter 53 of Title 5, United States Code; or

(C) In a general or flag officer position compensated at a rate of pay for grade O-7 or above under section 201 of Title 37, United States Code; or

(ii) Serves or served in DoD in one of the following positions: Program manager, deputy program manager, procuring contracting officer, administrative contracting officer, source selection authority, member of the source selection evaluation board, or chief of a financial or technical evaluation team for a contract in an amount in excess of \$10 million.

(b) The Contractor shall not knowingly provide compensation to a covered DoD official within 2 years after the official leaves DoD service, without first determining that the official has sought and received, or has not received after 30 days of seeking, a written opinion from the appropriate

DoD ethics counselor regarding the applicability of post-employment restrictions to the activities that the official is expected to undertake on behalf of the Contractor.

(c) Failure by the Contractor to comply with paragraph (b) of this clause may subject the Contractor to rescission of this contract, suspension, or debarment in accordance with 41 U.S.C. 2105(c).

(End of clause)

252.203-7001 PROHIBITION ON PERSONS CONVICTED OF FRAUD OR OTHER
DEFENSE-CONTRACT-RELATED FELONIES (DEC 2008)

(a) Definitions. As used in this clause—

(1) “Arising out of a contract with the DoD” means any act in connection with—

(i) Attempting to obtain;

(ii) Obtaining, or

(iii) Performing a contract or first-tier subcontract of any agency, department, or component of the Department of Defense (DoD).

(2) “Conviction of fraud or any other felony” means any conviction for fraud or a felony in violation of state or Federal criminal statutes, whether entered on a verdict or plea, including a plea of nolo contendere, for which sentence has been imposed.

(3) “Date of conviction” means the date judgment was entered against the individual.

(b) Any individual who is convicted after September 29, 1988, of fraud or any other felony arising out of a contract with the DoD is prohibited from serving--

(1) In a management or supervisory capacity on this contract;

(2) On the board of directors of the Contractor;

(3) As a consultant, agent, or representative for the Contractor; or

(4) In any other capacity with the authority to influence, advise, or control the decisions of the Contractor with regard to this contract.

(c) Unless waived, the prohibition in paragraph (b) of this clause applies for not less than 5 years from the date of conviction.

(d) 10 U.S.C. 2408 provides that the Contractor shall be subject to a criminal penalty of not more than \$500,000 if convicted of knowingly--

(1) Employing a person under a prohibition specified in paragraph (b) of this clause; or

(2) Allowing such a person to serve on the board of directors of the contractor or first-tier subcontractor.

(e) In addition to the criminal penalties contained in 10 U.S.C. 2408, the Government may consider other available remedies, such as—

(1) Suspension or debarment;

(2) Cancellation of the contract at no cost to the Government; or

(3) Termination of the contract for default.

(f) The Contractor may submit written requests for waiver of the prohibition in paragraph (b) of this clause to the Contracting Officer. Requests shall clearly identify—

(1) The person involved;

(2) The nature of the conviction and resultant sentence or punishment imposed;

(3) The reasons for the requested waiver; and

(4) An explanation of why a waiver is in the interest of national security.

(g) The Contractor agrees to include the substance of this clause, appropriately modified to reflect the identity and relationship of the parties, in all first-tier subcontracts exceeding the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation, except those for commercial items or components.

(h) Pursuant to 10 U.S.C. 2408(c), defense contractors and subcontractors may obtain information as to whether a particular person has been convicted of fraud or any other felony arising out of a contract with the DoD by contacting The Office of Justice Programs, The Denial of Federal Benefits Office, U.S. Department of Justice, telephone 301-937-1542; www.ojp.usdoj.gov/BJA/grant/DPFC.html.

(End of clause)

252.203-7002 REQUIREMENT TO INFORM EMPLOYEES OF WHISTLEBLOWER
RIGHTS (SEP 2013)

(a) The Contractor shall inform its employees in writing, in the predominant native language of the workforce, of contractor employee whistleblower rights and protections under 10 U.S.C. 2409, as described in subpart 203.9 of the Defense Federal Acquisition Regulation Supplement.

(b) The Contractor shall include the substance of this clause, including this paragraph (b), in all subcontracts.

(End of clause)

252.203-7003 AGENCY OFFICE OF THE INSPECTOR GENERAL (DEC 2012)

The agency office of the Inspector General referenced in paragraphs (c) and (d) of FAR clause 52.203-13, Contractor Code of Business Ethics and Conduct, is the DoD Office of Inspector General at the following address:

Department of Defense Office of Inspector General, Investigative Policy and Oversight,
Contractor Disclosure Program, 4800 Mark Center Drive, Suite 11H25, Alexandria, VA 22350-1500.

Toll Free Telephone: 866-429-8011.

(End of clause)

252.204-7000 DISCLOSURE OF INFORMATION (OCT 2016)

(a) The Contractor shall not release to anyone outside the Contractor's organization any unclassified information, regardless of medium (e.g., film, tape, document), pertaining to any part of this contract or any program related to this contract, unless--

(1) The Contracting Officer has given prior written approval;

(2) The information is otherwise in the public domain before the date of release; or

(3) The information results from or arises during the performance of a project that involves no covered defense information (as defined in the clause at DFARS 252.204-7012, Safeguarding Covered Defense Information and Cyber Incident Reporting) and has been scoped and negotiated by the contracting activity with the contractor and research performer and determined in writing by the contracting officer to be fundamental research (which by definition cannot involve any covered defense information), in accordance with National Security Decision Directive 189, National Policy on the Transfer of Scientific, Technical and Engineering Information, in effect on the date of contract award and the Under Secretary of Defense (Acquisition, Technology, and Logistics) memoranda on Fundamental Research, dated May 24, 2010, and on Contracted Fundamental Research, dated June 26, 2008 (available at DFARS PGI 204.4).

(b) Requests for approval under paragraph (a)(1) shall identify the specific information to be released, the medium to be used, and the purpose for the release. The Contractor shall submit its request to the Contracting Officer at least 10 business days before the proposed date for release.

(c) The Contractor agrees to include a similar requirement, including this paragraph (c), in each subcontract under this contract. Subcontractors shall submit requests for authorization to release through the prime contractor to the Contracting Officer.

(End of clause)

252.204-7003 CONTROL OF GOVERNMENT PERSONNEL WORK PRODUCT (APR 1992)

The Contractor's procedures for protecting against unauthorized disclosure of information shall not require Department of Defense employees or members of the Armed Forces to relinquish control of their work products, whether classified or not, to the contractor.

(End of clause)

252.204-7006 BILLING INSTRUCTIONS (OCT 2005)

When submitting a request for payment, the Contractor shall—

(a) Identify the contract line item(s) on the payment request that reasonably reflect contract work performance; and

(b) Separately identify a payment amount for each contract line item included in the payment request.

(End of clause)

252.204-7012 SAFEGUARDING COVERED DEFENSE INFORMATION AND CYBER INCIDENT REPORTING (OCT 2016)

(a) Definitions. As used in this clause--

Adequate security means protective measures that are commensurate with the consequences and probability of loss, misuse, or unauthorized access to, or modification of information.

Compromise means disclosure of information to unauthorized persons, or a violation of the security policy of a system, in which unauthorized intentional or unintentional disclosure, modification, destruction, or loss of an object, or the copying of information to unauthorized media may have occurred.

Contractor attributional/proprietary information means information that identifies the contractor(s), whether directly or indirectly, by the grouping of information that can be traced back to the contractor(s) (e.g., program description, facility locations), personally identifiable information, as well as trade secrets, commercial or financial information, or other commercially sensitive information that is not customarily shared outside of the company.

Controlled technical information means technical information with military or space application that is subject to controls on the access, use, reproduction, modification, performance, display, release, disclosure, or dissemination. Controlled technical information would meet the criteria, if disseminated, for distribution statements B through F using the criteria set forth in DoD Instruction 5230.24, Distribution Statements on Technical Documents. The term does not include information that is lawfully publicly available without restrictions.

Covered contractor information system means an unclassified information system that is owned, or operated by or for, a contractor and that processes, stores, or transmits covered defense information.

Covered defense information means unclassified controlled technical information or other information, as described in the Controlled Unclassified Information (CUI) Registry at <http://www.archives.gov/cui/registry/category-list.html>, that requires safeguarding or dissemination controls pursuant to and consistent with law, regulations, and Governmentwide policies, and is--

- (1) Marked or otherwise identified in the contract, task order, or delivery order and provided to the contractor by or on behalf of DoD in support of the performance of the contract; or
- (2) Collected, developed, received, transmitted, used, or stored by or on behalf of the contractor in support of the performance of the contract.

Cyber incident means actions taken through the use of computer networks that result in a compromise or an actual or potentially adverse effect on an information system and/or the information residing therein.

Forensic analysis means the practice of gathering, retaining, and analyzing computer-related data for investigative purposes in a manner that maintains the integrity of the data.

Information system means a discrete set of information resources organized for the collection, processing, maintenance, use, sharing, dissemination, or disposition of information.

Malicious software means computer software or firmware intended to perform an unauthorized process that will have adverse impact on the confidentiality, integrity, or availability of an information system. This definition includes a virus, worm, Trojan horse, or other code-based entity that infects a host, as well as spyware and some forms of adware.

Media means physical devices or writing surfaces including, but is not limited to, magnetic tapes, optical disks, magnetic disks, large-scale integration memory chips, and printouts onto which covered defense information is recorded, stored, or printed within a covered contractor information system.

Operationally critical support means supplies or services designated by the Government as critical for airlift, sealift, intermodal transportation services, or logistical support that is essential to the mobilization, deployment, or sustainment of the Armed Forces in a contingency operation.

Rapidly report means within 72 hours of discovery of any cyber incident.

Technical information means technical data or computer software, as those terms are defined in the clause at DFARS 252.227-7013, Rights in Technical Data--Noncommercial Items, regardless of whether or not the clause is incorporated in this solicitation or contract. Examples of technical information include research and engineering data, engineering drawings, and associated lists, specifications, standards, process sheets, manuals, technical reports, technical orders, catalog-item identifications, data sets, studies and analyses and related information, and computer software executable code and source code.

(b) Adequate security. The Contractor shall provide adequate security on all covered contractor information systems. To provide adequate security, the Contractor shall implement, at a minimum, the following information security protections:

(1) For covered contractor information systems that are part of an information technology (IT) service or system operated on behalf of the Government, the following security requirements apply:

(i) Cloud computing services shall be subject to the security requirements specified in the clause 252.239-7010, Cloud Computing Services, of this contract.

(ii) Any other such IT service or system (i.e., other than cloud computing) shall be subject to the security requirements specified elsewhere in this contract.

(2) For covered contractor information systems that are not part of an IT service or system operated on behalf of the Government and therefore are not subject to the security requirement specified at paragraph (b)(1) of this clause, the following security requirements apply:

(i) Except as provided in paragraph (b)(2)(ii) of this clause, the covered contractor information system shall be subject to the security requirements in National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171, "Protecting Controlled Unclassified Information in Nonfederal Information Systems and Organizations" (available via the internet at <http://dx.doi.org/10.6028/NIST.SP.800-171>) in effect at the time the solicitation is issued or as authorized by the Contracting Officer.

(ii)(A) The Contractor shall implement NIST SP 800-171, as soon as practical, but not later than December 31, 2017. For all contracts awarded prior to October 1, 2017, the Contractor shall

notify the DoD Chief Information Officer (CIO), via email at osd.dibcsia@mail.mil, within 30 days of contract award, of any security requirements specified by NIST SP 800-171 not implemented at the time of contract award.

(B) The Contractor shall submit requests to vary from NIST SP 800-171 in writing to the Contracting Officer, for consideration by the DoD CIO. The Contractor need not implement any security requirement adjudicated by an authorized representative of the DoD CIO to be nonapplicable or to have an alternative, but equally effective, security measure that may be implemented in its place.

(C) If the DoD CIO has previously adjudicated the contractor's requests indicating that a requirement is not applicable or that an alternative security measure is equally effective, a copy of that approval shall be provided to the Contracting Officer when requesting its recognition under this contract.

(D) If the Contractor intends to use an external cloud service provider to store, process, or transmit any covered defense information in performance of this contract, the Contractor shall require and ensure that the cloud service provider meets security requirements equivalent to those established by the Government for the Federal Risk and Authorization Management Program (FedRAMP) Moderate baseline (<https://www.fedramp.gov/resources/documents/>) and that the cloud service provider complies with requirements in paragraphs (c) through (g) of this clause for cyber incident reporting, malicious software, media preservation and protection, access to additional information and equipment necessary for forensic analysis, and cyber incident damage assessment.

(3) Apply other information systems security measures when the Contractor reasonably determines that information systems security measures, in addition to those identified in paragraphs (b)(1) and (2) of this clause, may be required to provide adequate security in a dynamic environment or to accommodate special circumstances (e.g., medical devices) and any individual, isolated, or temporary deficiencies based on an assessed risk or vulnerability. These measures may be addressed in a system security plan.

(c) Cyber incident reporting requirement.

(1) When the Contractor discovers a cyber incident that affects a covered contractor information system or the covered defense information residing therein, or that affects the contractor's ability to perform the requirements of the contract that are designated as operationally critical support and identified in the contract, the Contractor shall--

(i) Conduct a review for evidence of compromise of covered defense information, including, but not limited to, identifying compromised computers, servers, specific data, and user accounts. This review shall also include analyzing covered contractor information system(s) that were part of the cyber incident, as well as other information systems on the Contractor's network(s), that may have been accessed as a result of the incident in order to identify compromised covered defense information, or that affect the Contractor's ability to provide operationally critical support; and

(ii) Rapidly report cyber incidents to DoD at <http://dibnet.dod.mil>.

(2) Cyber incident report. The cyber incident report shall be treated as information created by or for DoD and shall include, at a minimum, the required elements at <http://dibnet.dod.mil>.

(3) Medium assurance certificate requirement. In order to report cyber incidents in accordance with this clause, the Contractor or subcontractor shall have or acquire a DoD-approved medium assurance certificate to report cyber incidents. For information on obtaining a DoD-approved medium assurance certificate, see <http://iase.disa.mil/pki/eca/Pages/index.aspx>.

(d) Malicious software. When the Contractor or subcontractors discover and isolate malicious software in connection with a reported cyber incident, submit the malicious software to DoD Cyber Crime Center (DC3) in accordance with instructions provided by DC3 or the Contracting Officer. Do not send the malicious software to the Contracting Officer.

(e) Media preservation and protection. When a Contractor discovers a cyber incident has occurred, the Contractor shall preserve and protect images of all known affected information systems identified in paragraph (c)(1)(i) of this clause and all relevant monitoring/packet capture data for at least 90 days from the submission of the cyber incident report to allow DoD to request the media or decline interest.

(f) Access to additional information or equipment necessary for forensic analysis. Upon request by DoD, the Contractor shall provide DoD with access to additional information or equipment that is necessary to conduct a forensic analysis.

(g) Cyber incident damage assessment activities. If DoD elects to conduct a damage assessment, the Contracting Officer will request that the Contractor provide all of the damage assessment information gathered in accordance with paragraph (e) of this clause.

(h) DoD safeguarding and use of contractor attributional/proprietary information. The Government shall protect against the unauthorized use or release of information obtained from the contractor (or derived from information obtained from the contractor) under this clause that includes contractor attributional/proprietary information, including such information submitted in accordance with paragraph (c). To the maximum extent practicable, the Contractor shall identify and mark attributional/proprietary information. In making an authorized release of such information, the Government will implement appropriate procedures to minimize the contractor attributional/proprietary information that is included in such authorized release, seeking to include only that information that is necessary for the authorized purpose(s) for which the information is being released.

(i) Use and release of contractor attributional/proprietary information not created by or for DoD. Information that is obtained from the contractor (or derived from information obtained from the contractor) under this clause that is not created by or for DoD is authorized to be released outside of DoD--

- (1) To entities with missions that may be affected by such information;
 - (2) To entities that may be called upon to assist in the diagnosis, detection, or mitigation of cyber incidents;
 - (3) To Government entities that conduct counterintelligence or law enforcement investigations;
 - (4) For national security purposes, including cyber situational awareness and defense purposes (including with Defense Industrial Base (DIB) participants in the program at 32 CFR part 236); or
 - (5) To a support services contractor ("recipient") that is directly supporting Government activities under a contract that includes the clause at 252.204-7009, Limitations on the Use or Disclosure of Third-Party Contractor Reported Cyber Incident Information.
- (j) Use and release of contractor attributional/proprietary information created by or for DoD. Information that is obtained from the contractor (or derived from information obtained from the contractor) under this clause that is created by or for DoD (including the information submitted pursuant to paragraph (c) of this clause) is authorized to be used and released outside of DoD for purposes and activities authorized by paragraph (i) of this clause, and for any other lawful Government purpose or activity, subject to all applicable statutory, regulatory, and policy based restrictions on the Government's use and release of such information.
- (k) The Contractor shall conduct activities under this clause in accordance with applicable laws and regulations on the interception, monitoring, access, use, and disclosure of electronic communications and data.
- (l) Other safeguarding or reporting requirements. The safeguarding and cyber incident reporting required by this clause in no way abrogates the Contractor's responsibility for other safeguarding or cyber incident reporting pertaining to its unclassified information systems as required by other applicable clauses of this contract, or as a result of other applicable U.S. Government statutory or regulatory requirements.
- (m) Subcontracts. The Contractor shall--
- (1) Include this clause, including this paragraph (m), in subcontracts, or similar contractual instruments, for operationally critical support, or for which subcontract performance will involve covered defense information, including subcontracts for commercial items, without alteration, except to identify the parties. The Contractor shall determine if the information required for subcontractor performance retains its identity as covered defense information and will require protection under this clause, and, if necessary, consult with the Contracting Officer; and
 - (2) Require subcontractors to--

- (i) Notify the prime Contractor (or next higher-tier subcontractor) when submitting a request to vary from a NIST SP 800-171 security requirement to the Contracting Officer, in accordance with paragraph (b)(2)(ii)(B) of this clause; and
- (ii) Provide the incident report number, automatically assigned by DoD, to the prime Contractor (or next higher-tier subcontractor) as soon as practicable, when reporting a cyber incident to DoD as required in paragraph (c) of this clause.

(End of clause)

252.204-7015 NOTICE OF AUTHORIZED DISCLOSURE OF INFORMATION FOR LITIGATION SUPPORT (MAY 2016)

(a) Definitions. As used in this clause--

Computer software means computer programs, source code, source code listings, object code listings, design details, algorithms, processes, flow charts, formulae, and related material that would enable the software to be reproduced, recreated, or recompiled. Computer software does not include computer data bases or computer software documentation.

Litigation support means administrative, technical, or professional services provided in support of the Government during or in anticipation of litigation.

Litigation support contractor means a contractor (including its experts, technical consultants, subcontractors, and suppliers) providing litigation support under a contract that contains the clause at 252.204-7014, Limitations on the Use or Disclosure of Information by Litigation Support Contractors.

Sensitive information means controlled unclassified information of a commercial, financial, proprietary, or privileged nature. The term includes technical data and computer software, but does not include information that is lawfully, publicly available without restriction.

Technical data means recorded information, regardless of the form or method of the recording, of a scientific or technical nature (including computer software documentation). The term does not include computer software or data incidental to contract administration, such as financial and/or management information.

(b) Notice of authorized disclosures. Notwithstanding any other provision of this solicitation or contract, the Government may disclose to a litigation support contractor, for the sole purpose of litigation support activities, any information, including sensitive information, received—

- (1) Within or in connection with a quotation or offer; or
- (2) In the performance of or in connection with a contract.

(c) Flowdown. Include the substance of this clause, including this paragraph (c), in all subcontracts, including subcontracts for commercial items.

(End of clause)

252.205-7000 PROVISION OF INFORMATION TO COOPERATIVE AGREEMENT HOLDERS (DEC 1991)

(a) Definition.

"Cooperative agreement holder" means a State or local government; a private, nonprofit organization; a tribal organization (as defined in section 4(c) of the Indian Self-Determination and Education Assistance Act (Pub. L. 93-268; 25 U.S.C. 450 (c))); or an economic enterprise (as defined in section 3(e) of the Indian Financing Act of 1974 (Pub. L. 93-362; 25 U.S.C. 1452(e))) whether such economic enterprise is organized for profit or nonprofit purposes; which has an agreement with the Defense Logistics Agency to furnish procurement technical assistance to business entities.

(b) The Contractor shall provide cooperative agreement holders, upon their request, with a list of those appropriate employees or offices responsible for entering into subcontracts under defense contracts. The list shall include the business address, telephone number, and area of responsibility of each employee or office.

(c) The Contractor need not provide the listing to a particular cooperative agreement holder more frequently than once a year.

(End of clause)

252.209-7004 SUBCONTRACTING WITH FIRMS THAT ARE OWNED OR CONTROLLED BY THE GOVERNMENT OF A COUNTRY THAT IS A STATE SPONSOR OF TERRORISM (OCT 2015)

(a) Unless the Government determines that there is a compelling reason to do so, the Contractor shall not enter into any subcontract in excess of \$35,000 with a firm, or a subsidiary of a firm, that is identified in the Exclusions section of the System for Award Management System (SAM Exclusions) as being ineligible for the award of Defense contracts or subcontracts because it is owned or controlled by the government of a country that is a state sponsor of terrorism.

(b) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is identified, in SAM Exclusions, as being ineligible for the award of Defense contracts or subcontracts because it is owned or controlled by the government of a country that is a state sponsor of terrorism. The notice must include the name of the proposed subcontractor and the compelling reason(s) for doing business with the subcontractor notwithstanding its inclusion in SAM Exclusions.

(End of clause)

252.216-7006 ORDERING (MAY 2011)

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the contract schedule. Such orders may be issued **up to 14 months after contract award.**

(b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order or task order and this contract, the contract shall control.

(c)(1) If issued electronically, the order is considered "issued" when a copy has been posted to the Electronic Document Access system, and notice has been sent to the Contractor.

(2) If mailed or transmitted by facsimile, a delivery order or task order is considered "issued" when the Government deposits the order in the mail or transmits by facsimile. Mailing includes transmittal by U.S. mail or private delivery services.

(3) Orders may be issued orally only if authorized in the schedule.

(End of Clause)

252.219-7003 SMALL BUSINESS SUBCONTRACTING PLAN (DOD CONTRACTS)--
BASIC (DEVIATION 2018-O0007) (DEC 2017)

This clause supplements the Federal Acquisition Regulation 52.219-9, Small Business Subcontracting Plan, clause of this contract.

(a) *Definitions.* "Summary Subcontract Report (SSR) Coordinator," as used in this clause, means the individual who is registered in the Electronic Subcontracting Reporting System (eSRS) at the Department of Defense (9700) and is responsible for acknowledging receipt or rejecting SSRs in eSRS for the Department of Defense.

(b) Subcontracts awarded to workshops approved by the Committee for Purchase from People Who are Blind or Severely Disabled (41 U.S.C. 8502-8504), may be counted toward the Contractor's small business subcontracting goal.

(c) A mentor firm, under the Pilot Mentor-Protege Program established under section 831 of Public Law 101-510, as amended, may count toward its small disadvantaged business goal, subcontracts awarded to—

- (1) Protege firms which are qualified organizations employing the severely disabled; and
- (2) Former protege firms that meet the criteria in section 831(g)(4) of Public Law 101-510.
- (d) The master plan is approved by the Contractor's cognizant contract administration activity.
- (e) In those subcontracting plans which specifically identify small businesses, the Contractor shall notify the Administrative Contracting Officer of any substitutions of firms that are not small business firms, for the small business firms specifically identified in the subcontracting plan. Notifications shall be in writing and shall occur within a reasonable period of time after award of the subcontract. Contractor-specified formats shall be acceptable.
- (f)(1) For DoD, the Contractor shall submit reports in eSRS as follows:
 - (i) The Individual Subcontract Report (ISR) shall be submitted to the contracting officer at the procuring contracting office, even when contract administration has been delegated to the Defense Contract Management Agency.
 - (ii) Submit the consolidated SSR for an individual subcontracting plan by selecting "Department of Defense (DoD) (9700)" from the top of the second dropdown menu in the Government agency in Block 7 ("Agency to which the report is being submitted"). The contractor shall not select anything lower.
- (2) For DoD, the authority to acknowledge receipt or reject reports in eSRS is as follows:
 - (i) The authority to acknowledge receipt or reject the ISR resides with the contracting officer who receives it, as described in paragraph (f)(1)(i) of this clause.
 - (ii) The authority to acknowledge receipt of or reject SSRs resides with the SSR Coordinator.
- (End of clause)

252.223-7004 DRUG-FREE WORK FORCE (SEP 1988)

(a) Definitions.

- (1) "Employee in a sensitive position," as used in this clause, means an employee who has been granted access to classified information; or employees in other positions that the Contractor determines involve national security; health or safety, or functions other than the foregoing requiring a high degree of trust and confidence.
- (2) "Illegal drugs," as used in this clause, means controlled substances included in Schedules I and II, as defined by section 802(6) of title 21 of the United States Code, the possession of which is unlawful under chapter 13 of that Title. The term "illegal drugs" does not mean the use of a controlled substance pursuant to a valid prescription or other uses authorized by law.

(b) The Contractor agrees to institute and maintain a program for achieving the objective of a drug-free work force. While this clause defines criteria for such a program, contractors are encouraged to implement alternative approaches comparable to the criteria in paragraph (c) that are designed to achieve the objectives of this clause.

(c) Contractor programs shall include the following, or appropriate alternatives:

(1) Employee assistance programs emphasizing high level direction, education, counseling, rehabilitation, and coordination with available community resources;

(2) Supervisory training to assist in identifying and addressing illegal drug use by Contractor employees;

(3) Provision for self-referrals as well as supervisory referrals to treatment with maximum respect for individual confidentiality consistent with safety and security issues;

(4) Provision for identifying illegal drug users, including testing on a controlled and carefully monitored basis. Employee drug testing programs shall be established taking account of the following:

(i) The Contractor shall establish a program that provides for testing for the use of illegal drugs by employees in sensitive positions. The extent of and criteria for such testing shall be determined by the Contractor based on considerations that include the nature of the work being performed under the contract, the employee's duties, and efficient use of Contractor resources, and the risks to health, safety, or national security that could result from the failure of an employee adequately to discharge his or her position.

(ii) In addition, the Contractor may establish a program for employee drug testing--

(A) When there is a reasonable suspicion that an employee uses illegal drugs; or

(B) When an employees has been involved in an accident or unsafe practice;

(C) As part of or as a follow-up to counseling or rehabilitation for illegal drug use;

(D) As part of a voluntary employee drug testing program.

(iii) The Contractor may establish a program to test applicants for employment for illegal drug use.

(iv) For the purpose of administering this clause, testing for illegal drugs may be limited to those substances for which testing is prescribed by section 2..1 of subpart B of the "Mandatory Guidelines for Federal Workplace Drug Testing Programs" (53 FR 11980 (April 11, 1988), issued by the Department of Health and Human Services.

(d) Contractors shall adopt appropriate personnel procedures to deal with employees who are found to be using drugs illegally. Contractors shall not allow any employee to remain on duty or perform in a sensitive position who is found to use illegal drugs until such times as the Contractor, in accordance with procedures established by the Contractor, determines that the employee may perform in such a position.

(e) The provisions of this clause pertaining to drug testing program shall not apply to the extent that are inconsistent with state or local law, or with an existing collective bargaining agreement; provided that with respect to the latter, the Contractor agrees those issues that are in conflict will be a subject of negotiation at the next collective bargaining session.

(End of clause)

252.223-7008 PROHIBITION OF HEXAVALENT CHROMIUM (JUN 2013)

(a) Definitions. As used in this clause--

Homogeneous material means a material that cannot be mechanically disjointed into different materials and is of uniform composition throughout.

(1) Examples of homogeneous materials include individual types of plastics, ceramics, glass, metals, alloys, paper, board, resins, and surface coatings.

(2) Homogeneous material does not include conversion coatings that chemically modify the substrate.

Mechanically disjointed means that the materials can, in principle, be separated by mechanical actions such as unscrewing, cutting, crushing, grinding, and abrasive processes.

(b) Prohibition.

(1) Unless otherwise specified by the Contracting Officer, the Contractor shall not provide any deliverable or construction material under this contract that--

(i) Contains hexavalent chromium in a concentration greater than 0.1 percent by weight in any homogenous material; or

(ii) Requires the removal or reapplication of hexavalent chromium materials during subsequent sustainment phases of the deliverable or construction material.

(2) This prohibition does not apply to hexavalent chromium produced as a by-product of manufacturing processes.

(c) If authorization for incorporation of hexavalent chromium in a deliverable or construction material is required, the Contractor shall submit a request to the Contracting Officer.

(d) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (d), in all subcontracts, including subcontracts for commercial items, that are for supplies, maintenance and repair services, or construction materials.

(End of clause)

252.225-7012 PREFERENCE FOR CERTAIN DOMESTIC COMMODITIES (DEC 2017)

(a) Definitions. As used in this clause--

Component means any item supplied to the Government as part of an end product or of another component.

End product means supplies delivered under a line item of this contract.

Qualifying country means a country with a reciprocal defense procurement memorandum of understanding or international agreement with the United States in which both countries agree to remove barriers to purchases of supplies produced in the other country or services performed by sources of the other country, and the memorandum or agreement complies, where applicable, with the requirements of section 36 of the Arms Export Control Act (22 U.S.C. 2776) and with 10 U.S.C. 2457. Accordingly, the following are qualifying countries:

Australia
Austria
Belgium
Canada
Czech Republic
Denmark
Egypt
Estonia
Finland
France
Germany
Greece
Israel
Italy
Japan
Latvia
Luxembourg
Netherlands
Norway
Poland
Portugal
Slovenia

Spain
Sweden
Switzerland
Turkey
United Kingdom of Great Britain and Northern Ireland.

Structural component of a tent--

(i) Means a component that contributes to the form and stability of the tent (e.g., poles, frames, flooring, guy ropes, pegs);

(ii) Does not include equipment such as heating, cooling, or lighting.

United States means the 50 States, the District of Columbia, and outlying areas.

U.S.-flag vessel means a vessel of the United States or belonging to the United States, including any vessel registered or having national status under the laws of the United States.

(b) The Contractor shall deliver under this contract only such of the following items, either as end products or components, that have been grown, reprocessed, reused, or produced in the United States:

(1) Food.

(2) Clothing and the materials and components thereof, other than sensors, electronics, or other items added to, and not normally associated with, clothing and the materials and components thereof. Clothing includes items such as outerwear, headwear, underwear, nightwear, footwear, hosiery, handwear, belts, badges, and insignia.

(3) (i) Tents and structural components of tents;

(ii) Tarpaulins; or

(iii) Covers.

(4) Cotton and other natural fiber products.

(5) Woven silk or woven silk blends.

(6) Spun silk yarn for cartridge cloth.

(7) Synthetic fabric, and coated synthetic fabric, including all textile fibers and yarns that are for use in such fabrics.

(8) Canvas products.

(9) Wool (whether in the form of fiber or yarn or contained in fabrics, materials, or manufactured articles).

(10) Any item of individual equipment (Federal Supply Class 8465) manufactured from or containing fibers, yarns, fabrics, or materials listed in this paragraph (b).

(c) This clause does not apply--

(1) To items listed in section 25.104(a) of the Federal Acquisition Regulation (FAR), or other items for which the Government has determined that a satisfactory quality and sufficient quantity cannot be acquired as and when needed at U.S. market prices;

(2) To incidental amounts of cotton, other natural fibers, or wool incorporated in an end product, for which the estimated value of the cotton, other natural fibers, or wool--

(i) Is not more than 10 percent of the total price of the end product; and (ii) Does not exceed the simplified acquisition threshold in FAR part 2;

(3) To waste and byproducts of cotton or wool fiber for use in the production of propellants and explosives;

(4) To foods, other than fish, shellfish, or seafood, that have been manufactured or processed in the United States, regardless of where the foods (and any component if applicable) were grown or produced. Fish, shellfish, or seafood manufactured or processed in the United States and fish, shellfish, or seafood contained in foods manufactured or processed in the United States shall be provided in accordance with paragraph (d) of this clause;

(5) To chemical warfare protective clothing produced in a qualifying country; or

(6) To fibers and yarns that are for use in synthetic fabric or coated synthetic fabric (but does apply to the synthetic or coated synthetic fabric itself), if--

(i) The fabric is to be used as a component of an end product that is not a textile product. Examples of textile products, made in whole or in part of fabric, include--

(A) Draperies, floor coverings, furnishings, and bedding (Federal Supply Group 72, Household and Commercial Furnishings and Appliances);

(B) Items made in whole or in part of fabric in Federal Supply Group 83, Textile/leather/furs/apparel/findings/ tents/flags, or Federal Supply Group 84, Clothing, Individual Equipment and Insignia;

(C) Upholstered seats (whether for household, office, or other use); and

(D) Parachutes (Federal Supply Class 1670); or

(ii) The fibers and yarns are para-aramid fibers and continuous filament para-aramid yarns manufactured in a qualifying country.

(d)(1) Fish, shellfish, and seafood delivered under this contract, or contained in foods delivered under this contract--

(i) Shall be taken from the sea by U.S.-flag vessels; or

(ii) If not taken from the sea, shall be obtained from fishing within the United States; and

(2) Any processing or manufacturing of the fish, shellfish, or seafood shall be performed on a U.S.-flag vessel or in the United States.

(End of clause)

252.225-7048 EXPORT-CONTROLLED ITEMS (JUNE 2013)

(a) Definition. ``Export-controlled items," as used in this clause, means items subject to the Export Administration Regulations (EAR) (15 CFR Parts 730-774) or the International Traffic in Arms Regulations (ITAR) (22 CFR Parts 120-130). The term includes--

(1) ``Defense items," defined in the Arms Export Control Act, 22 U.S.C. 2778(j)(4)(A), as defense articles, defense services, and related technical data, and further defined in the ITAR, 22 CFR Part 120; and

(2) ``Items," defined in the EAR as ``commodities", ``software", and ``technology," terms that are also defined in the EAR, 15 CFR 772.1.

(b) The Contractor shall comply with all applicable laws and regulations regarding export-controlled items, including, but not limited to, the requirement for contractors to register with the Department of State in accordance with the ITAR. The Contractor shall consult with the Department of State regarding any questions relating to compliance with the ITAR and shall consult with the Department of Commerce regarding any questions relating to compliance with the EAR.

(c) The Contractor's responsibility to comply with all applicable laws and regulations regarding export-controlled items exists independent of, and is not established or limited by, the information provided by this clause.

(d) Nothing in the terms of this contract adds, changes, supersedes, or waives any of the requirements of applicable Federal laws, Executive orders, and regulations, including but not limited to—

(1) The Export Administration Act of 1979, as amended (50 U.S.C. App. 2401, et seq.);

- (2) The Arms Export Control Act (22 U.S.C. 2751, et seq.);
- (3) The International Emergency Economic Powers Act (50 U.S.C. 1701, et seq.);
- (4) The Export Administration Regulations (15 CFR Parts 730-774);
- (5) The International Traffic in Arms Regulations (22 CFR Parts 120-130); and
- (6) Executive Order 13222, as extended.

(e) The Contractor shall include the substance of this clause, including this paragraph (e), in all subcontracts.

(End of clause)

252.232-7003 ELECTRONIC SUBMISSION OF PAYMENT REQUESTS AND RECEIVING REPORTS (JUNE 2012)

(a) Definitions. As used in this clause—

(1) Contract financing payment and invoice payment have the meanings given in section 32.001 of the Federal Acquisition Regulation.

(2) Electronic form means any automated system that transmits information electronically from the initiating system to all affected systems. Facsimile, e-mail, and scanned documents are not acceptable electronic forms for submission of payment requests. However, scanned documents are acceptable when they are part of a submission of a payment request made using Wide Area WorkFlow (WAWF) or another electronic form authorized by the Contracting Officer.

(3) Payment request means any request for contract financing payment or invoice payment submitted by the Contractor under this contract.

(4) Receiving report means the data required by the clause at 252.246-7000, Material Inspection and Receiving Report.

(b) Except as provided in paragraph (c) of this clause, the Contractor shall submit payment requests and receiving reports using WAWF, in one of the following electronic formats that WAWF accepts: Electronic Data Interchange, Secure File Transfer Protocol, or World Wide Web input. Information regarding WAWF is available on the Internet at <https://wawf.eb.mil/>.

(c) The Contractor may submit a payment request and receiving report using other than WAWF only when—

(1) The Contracting Officer administering the contract for payment has determined, in writing, that electronic submission would be unduly burdensome to the Contractor. In such cases, the

Contractor shall include a copy of the Contracting Officer's determination with each request for payment;

(2) DoD makes payment for commercial transportation services provided under a Government rate tender or a contract for transportation services using a DoD-approved electronic third party payment system or other exempted vendor payment/invoicing system (e.g., PowerTrack, Transportation Financial Management System, and Cargo and Billing System);

(3) DoD makes payment for rendered health care services using the TRICARE Encounter Data System (TEDS) as the electronic format; or

(4) When the Governmentwide commercial purchase card is used as the method of payment, only submission of the receiving report in electronic form is required.

(d) The Contractor shall submit any non-electronic payment requests using the method or methods specified in Section G of the contract.

(e) In addition to the requirements of this clause, the Contractor shall meet the requirements of the appropriate payment clauses in this contract when submitting payments requests.

(End of clause)

252.232-7010 LEVIES ON CONTRACT PAYMENTS (DEC 2006)

(a) 26 U.S.C. 6331(h) authorizes the Internal Revenue Service (IRS) to continuously levy up to 100 percent of contract payments, up to the amount of tax debt.

(b) When a levy is imposed on a payment under this contract and the Contractor believes that the levy may result in an inability to perform the contract, the Contractor shall promptly notify the Procuring Contracting Officer in writing, with a copy to the Administrative Contracting Officer, and shall provide--

(1) The total dollar amount of the levy;

(2) A statement that the Contractor believes that the levy may result in an inability to perform the contract, including rationale and adequate supporting documentation; and

(3) Advice as to whether the inability to perform may adversely affect national security, including rationale and adequate supporting documentation.

(c) DoD shall promptly review the Contractor's assessment, and the Procuring Contracting Officer shall provide a written notification to the Contractor including--

(1) A statement as to whether DoD agrees that the levy may result in an inability to perform the contract; and

(2)(i) If the levy may result in an inability to perform the contract and the lack of performance will adversely affect national security, the total amount of the monies collected that should be returned to the Contractor; or

(ii) If the levy may result in an inability to perform the contract but will not impact national security, a recommendation that the Contractor promptly notify the IRS to attempt to resolve the tax situation.

(d) Any DoD determination under this clause is not subject to appeal under the Contract Disputes Act.

(End of clause)

252.236-7000 MODIFICATION PROPOSALS - PRICE BREAKDOWN. (DEC 1991)

(a) The Contractor shall furnish a price breakdown, itemized as required and within the time specified by the Contracting Officer, with any proposal for a contract modification.

(b) The price breakdown --

(1) Must include sufficient detail to permit an analysis of profit, and of all costs for --

(i) Material;

(ii) Labor;

(iii) Equipment;

(iv) Subcontracts; and

(v) Overhead; and

(2) Must cover all work involved in the modification, whether the work was deleted, added, or changed.

(c) The Contractor shall provide similar price breakdowns to support any amounts claimed for subcontracts.

(d) The Contractor's proposal shall include a justification for any time extension proposed.

(End of clause)

252.236-7001 CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000)

(a) The Government will provide to the Contractor, without charge, one set of contract drawings and specifications, except publications incorporated into the technical provisions by reference, in electronic or paper media as chosen by the Contracting Officer.

(b) The Contractor shall--

(1) Check all drawings furnished immediately upon receipt;

(2) Compare all drawings and verify the figures before laying out the work;

(3) Promptly notify the Contracting Officer of any discrepancies;

(4) Be responsible for any errors that might have been avoided by complying with this paragraph (b); and

(5) Reproduce and print contract drawings and specifications as needed.

(c) In general--

(1) Large-scale drawings shall govern small-scale drawings; and

(2) The Contractor shall follow figures marked on drawings in preference to scale measurements.

(d) Omissions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.

(e) The work shall conform to the specifications and the contract drawings identified on the following index of drawings:

Identified per task order if applicable.

(End of clause)

252.236-7002 OBSTRUCTION OF NAVIGABLE WATERWAYS. (DEC 1991)

(a) The Contractor shall --

(1) Promptly recover and remove any material, plant, machinery, or appliance which the contractor loses, dumps, throws overboard, sinks, or misplaces, and which, in the opinion of the Contracting Officer, may be dangerous to or obstruct navigation;

(2) Give immediate notice, with description and locations of any such obstructions, to the Contracting Officer; and

(3) When required by the Contracting Officer, mark or buoy such obstructions until the same are removed.

(b) The Contracting Officer may --

(1) Remove the obstructions by contract or otherwise should the Contractor refuse, neglect, or delay compliance with paragraph (a) of this clause; and

(2) Deduct the cost of removal from any monies due or to become due to the Contractor; or

(3) Recover the cost of removal under the Contractor's bond.

(c) The Contractor's liability for the removal of a vessel wrecked or sunk without fault or negligence is limited to that provided in sections 15, 19, and 20 of the River and Harbor Act of March 3, 1899 (33 U.S.C. 410 et. seq.).

(End of clause)

252.236-7004 PAYMENT FOR MOBILIZATION AND DEMOBILIZATION (DEC 1991)

(a) The Government will pay all costs for the mobilization and demobilization of all of the Contractor's plant and equipment at the contract lump sum price for this item.

(1) **Sixty (60%)** percent of the lump sum price upon completion of the contractor's mobilization at the work site.

(2) The remaining **Forty (40%)** percent upon completion of demobilization.

(b) The Contracting Officer may require the Contractor to furnish cost data to justify this portion of the bid if the Contracting Officer believes that the percentages in paragraphs (a) (1) and (2) of this clause do not bear a reasonable relation to the cost of the work in this contract.

(1) Failure to justify such price to the satisfaction of the Contracting Officer will result in payment, as determined by the Contracting Officer, of --

(i) Actual mobilization costs at completion of mobilization;

(ii) Actual demobilization costs at completion of demobilization; and

(iii) The remainder of this item in the final payment under this contract.

(2) The Contracting Officer's determination of the actual costs in paragraph (b)(1) of this clause is not subject to appeal.

(End of clause)

252.242-7004 MATERIAL MANAGEMENT AND ACCOUNTING SYSTEM (MAY 2011)

(a) Definitions. As used in this clause--

(1) Material management and accounting system (MMAS) means the Contractor's system or systems for planning, controlling, and accounting for the acquisition, use, issuing, and disposition of material. Material management and accounting systems may be manual or automated. They may be stand-alone systems or they may be integrated with planning, engineering, estimating, purchasing, inventory, accounting, or other systems.

(2) Valid time-phased requirements means material that is--

(i) Needed to fulfill the production plan, including reasonable quantities for scrap, shrinkage, yield, etc.; and

(ii) Charged/billed to contracts or other cost objectives in a manner consistent with the need to fulfill the production plan.

(3) Contractor means a business unit as defined in section 31.001 of the Federal Acquisition Regulation (FAR).

(4) Acceptable material management and accounting system means a MMAS that generally complies with the system criteria in paragraph (d) of this clause.

(5) Significant deficiency means a shortcoming in the system that materially affects the ability of officials of the Department of Defense to rely upon information produced by the system that is needed for management purposes.

(b) General. The Contractor shall--

(1) Maintain an MMAS that--

(i) Reasonably forecasts material requirements;

(ii) Ensures that costs of purchased and fabricated material charged or allocated to a contract are based on valid time-phased requirements; and

(iii) Maintains a consistent, equitable, and unbiased logic for costing of material transactions; and

(2) Assess its MMAS and take reasonable action to comply with the MMAS standards in paragraph (e) of this clause.

(c) Disclosure and maintenance requirements. The Contractor shall--

(1) Have policies, procedures, and operating instructions that adequately describe its MMAS;

(2) Provide to the Administrative Contracting Officer (ACO), upon request, the results of internal reviews that it has conducted to ensure compliance with established MMAS policies, procedures, and operating instructions; and

(3) Disclose significant changes in its MMAS to the ACO at least 30 days prior to implementation.

(d) System criteria. The MMAS shall have adequate internal controls to ensure system and data integrity, and shall-

(1) Have an adequate system description including policies, procedures, and operating instructions that comply with the Federal Acquisition Regulation and Defense Federal Acquisition Regulation Supplement;

(2) Ensure that costs of purchased and fabricated material charged or allocated to a contract are based on valid time-phased requirements as impacted by minimum/economic order quantity restrictions.

(i) A 98 percent bill of material accuracy and a 95 percent master production schedule accuracy are desirable as a goal in order to ensure that requirements are both valid and appropriately time-phased.

(ii) If systems have accuracy levels below these, the Contractor shall provide adequate evidence that--

(A) There is no material harm to the Government due to lower accuracy levels; and

(B) The cost to meet the accuracy goals is excessive in relation to the impact on the Government;

(3) Provide a mechanism to identify, report, and resolve system control weaknesses and manual override. Systems should identify operational exceptions, such as excess/residual inventory, as soon as known;

(4) Provide audit trails and maintain records (manual and those in machine-readable form) necessary to evaluate system logic and to verify through transaction testing that the system is operating as desired;

(5) Establish and maintain adequate levels of record accuracy, and include reconciliation of recorded inventory quantities to physical inventory by part number on a periodic basis. A 95

percent accuracy level is desirable. If systems have an accuracy level below 95 percent, the Contractor shall provide adequate evidence that--

- (i) There is no material harm to the Government due to lower accuracy levels; and
- (ii) The cost to meet the accuracy goal is excessive in relation to the impact on the Government;

(6) Provide detailed descriptions of circumstances that will result in manual or system generated transfers of parts;

(7) Maintain a consistent, equitable, and unbiased logic for costing of material transactions as follows:

- (i) The Contractor shall maintain and disclose written policies describing the transfer methodology and the loan/pay-back technique.
 - (ii) The costing methodology may be standard or actual cost, or any of the inventory costing methods in 48 CFR 9904.411-50(b). The Contractor shall maintain consistency across all contract and customer types, and from accounting period to accounting period for initial charging and transfer charging.
 - (iii) The system should transfer parts and associated costs within the same billing period. In the few instances where this may not be appropriate, the Contractor may accomplish the material transaction using a loan/pay-back technique. The "loan/pay-back technique" means that the physical part is moved temporarily from the contract, but the cost of the part remains on the contract. The procedures for the loan/pay-back technique must be approved by the ACO. When the technique is used, the Contractor shall have controls to ensure--
 - (A) Parts are paid back expeditiously;
 - (B) Procedures and controls are in place to correct any overbilling that might occur;
 - (C) Monthly, at a minimum, identification of the borrowing contract and the date the part was borrowed; and
 - (D) The cost of the replacement part is charged to the borrowing contract;
- (8) Where allocations from common inventory accounts are used, have controls (in addition to those in paragraphs (d)(2) and (7) of this clause) to ensure that--
- (i) Reallocations and any credit due are processed no less frequently than the routine billing cycle;
 - (ii) Inventories retained for requirements that are not under contract are not allocated to contracts; and
 - (iii) Algorithms are maintained based on valid and current data;

(9) Have adequate controls to ensure that physically commingled inventories that may include material for which costs are charged or allocated to fixed-price, cost-reimbursement, and commercial contracts do not compromise requirements of any of the standards in paragraphs (d)(1) through (8) of this clause. Government-furnished material shall not be--

(i) Physically commingled with other material; or

(ii) Used on commercial work; and

(10) Be subjected to periodic internal reviews to ensure compliance with established policies and procedures.

(e) Significant deficiencies.

(1) The Contracting Officer will provide an initial determination to the Contractor, in writing, of any significant deficiencies. The initial determination will describe the deficiency in sufficient detail to allow the Contractor to understand the deficiency.

(2) The Contractor shall respond within 30 days to a written initial determination from the Contracting Officer that identifies significant deficiencies in the Contractor's MMAS. If the Contractor disagrees with the initial determination, the Contractor shall state, in writing, its rationale for disagreeing.

(3) The Contracting Officer will evaluate the Contractor's response and notify the Contractor, in writing, of the Contracting Officer's final determination concerning--

(i) Remaining significant deficiencies;

(ii) The adequacy of any proposed or completed corrective action; and

(iii) System disapproval if the Contracting Officer determines that one or more significant deficiencies remain.

(f) If the Contractor receives the Contracting Officer's final determination of significant deficiencies, the Contractor shall, within 45 days of receipt of the final determination, either correct the significant deficiencies or submit an acceptable corrective action plan showing milestones and actions to eliminate the significant deficiencies.

(g) Withholding payments. If the Contracting Officer makes a final determination to disapprove the Contractor's MMAS, and the contract includes the clause at 252.242-7005, Contractor Business Systems, the Contracting Officer will withhold payments in accordance with that clause.

(End of clause)

252.242-7006 ACCOUNTING SYSTEM ADMINISTRATION (FEB 2012)

(a) Definitions. As used in this clause--

(1) Acceptable accounting system means a system that complies with the system criteria in paragraph (c) of this clause to provide reasonable assurance that--

(i) Applicable laws and regulations are complied with;

(ii) The accounting system and cost data are reliable;

(iii) Risk of misallocations and mischarges are minimized; and

(iv) Contract allocations and charges are consistent with billing procedures.

(2) Accounting system means the Contractor's system or systems for accounting methods, procedures, and controls established to gather, record, classify, analyze, summarize, interpret, and present accurate and timely financial data for reporting in compliance with applicable laws, regulations, and management decisions, and may include subsystems for specific areas such as indirect and other direct costs, compensation, billing, labor, and general information technology.

(3) Significant deficiency means a shortcoming in the system that materially affects the ability of officials of the Department of Defense to rely upon information produced by the system that is needed for management purposes.

(b) General. The Contractor shall establish and maintain an acceptable accounting system. Failure to maintain an acceptable accounting system, as defined in this clause, shall result in the withholding of payments if the contract includes the clause at 252.242-7005, Contractor Business Systems, and also may result in disapproval of the system.

(c) System criteria. The Contractor's accounting system shall provide for--

(1) A sound internal control environment, accounting framework, and organizational structure;

(2) Proper segregation of direct costs from indirect costs;

(3) Identification and accumulation of direct costs by contract;

(4) A logical and consistent method for the accumulation and allocation of indirect costs to intermediate and final cost objectives;

(5) Accumulation of costs under general ledger control;

(6) Reconciliation of subsidiary cost ledgers and cost objectives to general ledger;

(7) Approval and documentation of adjusting entries;

- (8) Management reviews or internal audits of the system to ensure compliance with the Contractor's established policies, procedures, and accounting practices;
 - (9) A timekeeping system that identifies employees' labor by intermediate or final cost objectives;
 - (10) A labor distribution system that charges direct and indirect labor to the appropriate cost objectives;
 - (11) Interim (at least monthly) determination of costs charged to a contract through routine posting of books of account;
 - (12) Exclusion from costs charged to Government contracts of amounts which are not allowable in terms of Federal Acquisition Regulation (FAR) part 31, Contract Cost Principles and Procedures, and other contract provisions;
 - (13) Identification of costs by contract line item and by units (as if each unit or line item were a separate contract), if required by the contract;
 - (14) Segregation of preproduction costs from production costs, as applicable;
 - (15) Cost accounting information, as required--
 - (i) By contract clauses concerning limitation of cost (FAR 52.232-20), limitation of funds (FAR 52.232-22), or allowable cost and payment (FAR 52.216-7); and
 - (ii) To readily calculate indirect cost rates from the books of accounts;
 - (16) Billings that can be reconciled to the cost accounts for both current and cumulative amounts claimed and comply with contract terms;
 - (17) Adequate, reliable data for use in pricing follow-on acquisitions; and
 - (18) Accounting practices in accordance with standards promulgated by the Cost Accounting Standards Board, if applicable, otherwise, Generally Accepted Accounting Principles.
- (d) Significant deficiencies.
- (1) The Contracting Officer will provide an initial determination to the Contractor, in writing, on any significant deficiencies. The initial determination will describe the deficiency in sufficient detail to allow the Contractor to understand the deficiency.
 - (2) The Contractor shall respond within 30 days to a written initial determination from the Contracting Officer that identifies significant deficiencies in the Contractor's accounting system.

If the Contractor disagrees with the initial determination, the Contractor shall state, in writing, its rationale for disagreeing.

(3) The Contracting Officer will evaluate the Contractor's response and notify the Contractor, in writing, of the Contracting Officer's final determination concerning--

(i) Remaining significant deficiencies;

(ii) The adequacy of any proposed or completed corrective action; and

(iii) System disapproval, if the Contracting Officer determines that one or more significant deficiencies remain.

(e) If the Contractor receives the Contracting Officer's final determination of significant deficiencies, the Contractor shall, within 45 days of receipt of the final determination, either correct the significant deficiencies or submit an acceptable corrective action plan showing milestones and actions to eliminate the significant deficiencies.

(f) Withholding payments. If the Contracting Officer makes a final determination to disapprove the Contractor's accounting system, and the contract includes the clause at 252.242-7005, Contractor Business Systems, the Contracting Officer will withhold payments in accordance with that clause.

(End of clause)

252.243-7001 PRICING OF CONTRACT MODIFICATIONS (DEC 1991)

When costs are a factor in any price adjustment under this contract, the contract cost principles and procedures in FAR part 31 and DFARS part 231, in effect on the date of this contract, apply.

(End of clause)

252.243-7002 REQUESTS FOR EQUITABLE ADJUSTMENT (DEC 2012)

(a) The amount of any request for equitable adjustment to contract terms shall accurately reflect the contract adjustment for which the Contractor believes the Government is liable. The request shall include only costs for performing the change, and shall not include any costs that already have been reimbursed or that have been separately claimed. All indirect costs included in the request shall be properly allocable to the change in accordance with applicable acquisition regulations.

(b) In accordance with 10 U.S.C. 2410(a), any request for equitable adjustment to contract terms that exceeds the simplified acquisition threshold shall bear, at the time of submission, the

following certificate executed by an individual authorized to certify the request on behalf of the Contractor:

I certify that the request is made in good faith, and that the supporting data are accurate and complete to the best of my knowledge and belief.

(Official's Name)

(Title)

(c) The certification in paragraph (b) of this clause requires full disclosure of all relevant facts, including--

(1) Certified cost or pricing data if required in accordance with subsection 15.403-4 of the Federal Acquisition Regulation (FAR); and

(2) Data other than certified cost or pricing data, in accordance with subsection 15.403-3 of the FAR, including actual cost data and data to support any estimated costs, even if certified cost or pricing data are not required.

(d) The certification requirement in paragraph (b) of this clause does not apply to----

(1) Requests for routine contract payments; for example, requests for payment for accepted supplies and services, routine vouchers under a cost-reimbursement type contract, or progress payment invoices; or

(2) Final adjustment under an incentive provision of the contract.

(End of clause)

252.247-7023 TRANSPORTATION OF SUPPLIES BY SEA (APR 2014)

(a) Definitions. As used in this clause --

"Components" means articles, materials, and supplies incorporated directly into end products at any level of manufacture, fabrication, or assembly by the Contractor or any subcontractor.

"Department of Defense" (DoD) means the Army, Navy, Air Force, Marine Corps, and defense agencies.

"Foreign-flag vessel" means any vessel that is not a U.S.-flag vessel.

"Ocean transportation" means any transportation aboard a ship, vessel, boat, barge, or ferry through international waters.

"Subcontractor" means a supplier, materialman, distributor, or vendor at any level below the prime contractor whose contractual obligation to perform results from, or is conditioned upon, award of the prime contract and who is performing any part of the work or other requirement of the prime contract.

"Supplies" means all property, except land and interests in land, that is clearly identifiable for eventual use by or owned by the DoD at the time of transportation by sea.

(i) An item is clearly identifiable for eventual use by the DoD if, for example, the contract documentation contains a reference to a DoD contract number or a military destination.

(ii) "Supplies" includes (but is not limited to) public works; buildings and facilities; ships; floating equipment and vessels of every character, type, and description, with parts, subassemblies, accessories, and equipment; machine tools; material; equipment; stores of all kinds; end items; construction materials; and components of the foregoing.

"U.S.-flag vessel" means a vessel of the United States or belonging to the United States, including any vessel registered or having national status under the laws of the United States.

(b)(1) The Contractor shall use U.S.-flag vessels when transporting any supplies by sea under this contract.

(2) A subcontractor transporting supplies by sea under this contract shall use U.S.-flag vessels if-

(i) This contract is a construction contract; or

(ii) The supplies being transported are--

(A) Noncommercial items; or

(B) Commercial items that--

(1) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it contracts for f.o.b. destination shipment);

(2) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(3) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

(c) The Contractor and its subcontractors may request that the Contracting Officer authorize shipment in foreign-flag vessels, or designate available U.S.-flag vessels, if the Contractor or a subcontractor believes that --

- (1) U.S.-flag vessels are not available for timely shipment;
- (2) The freight charges are inordinately excessive or unreasonable; or
- (3) Freight charges are higher than charges to private persons for transportation of like goods.

(d) The Contractor must submit any request for use of foreign-flag vessels in writing to the Contracting Officer at least 45 days prior to the sailing date necessary to meet its delivery schedules. The Contracting Officer will process requests submitted after such date(s) as expeditiously as possible, but the Contracting Officer's failure to grant approvals to meet the shipper's sailing date will not of itself constitute a compensable delay under this or any other clause of this contract. Requests shall contain at a minimum --

- (1) Type, weight, and cube of cargo;
- (2) Required shipping date;
- (3) Special handling and discharge requirements;
- (4) Loading and discharge points;
- (5) Name of shipper and consignee;
- (6) Prime contract number; and
- (7) A documented description of efforts made to secure U.S.-flag vessels, including points of contact (with names and telephone numbers) with at least two U.S.-flag carriers contacted. Copies of telephone notes, telegraphic and facsimile message or letters will be sufficient for this purpose.

(e) The Contractor shall, within 30 days after each shipment covered by this clause, provide the Contracting Officer and the Maritime Administration, Office of Cargo Preference, U.S. Department of Transportation, 400 Seventh Street SW., Washington, DC 20590, one copy of the rated on board vessel operating carrier's ocean bill of lading, which shall contain the following information:

- (1) Prime contract number;
- (2) Name of vessel;
- (3) Vessel flag of registry;
- (4) Date of loading;
- (5) Port of loading;

(6) Port of final discharge;

(7) Description of commodity;

(8) Gross weight in pounds and cubic feet if available;

(9) Total ocean freight in U.S. dollars; and

(10) Name of the steamship company.

(f) If this contract exceeds the simplified acquisition threshold, the Contractor shall provide with its final invoice under this contract a representation that to the best of its knowledge and belief--

(1) No ocean transportation was used in the performance of this contract;

(2) Ocean transportation was used and only U.S.-flag vessels were used for all ocean shipments under the contract;

(3) Ocean transportation was used, and the Contractor had the written consent of the Contracting Officer for all foreign-flag ocean transportation; or

(4) Ocean transportation was used and some or all of the shipments were made on foreign-flag vessels without the written consent of the Contracting Officer. The Contractor shall describe these shipments in the following format:

ITEM DESCRIPTION	CONTRACT LINE ITEMS	QUANTITY
TOTAL		

(g) If this contract exceeds the simplified acquisition threshold and the final invoice does not include the required representation, the Government will reject and return it to the Contractor as an improper invoice for the purposes of the Prompt Payment clause of this contract. In the event there has been unauthorized use of foreign-flag vessels in the performance of this contract, the Contracting Officer is entitled to equitably adjust the contract, based on the unauthorized use.

(h) In the award of subcontracts for the types of supplies described in paragraph (b)(2) of this clause, including subcontracts for commercial items, the Contractor shall flow down the requirements of this clause as follows:

(1) The Contractor shall insert the substance of this clause, including this paragraph (h), in subcontracts that exceed the simplified acquisition threshold in part 2 of the Federal Acquisition Regulation.

(2) The Contractor shall insert the substance of paragraphs (a) through (e) of this clause, and this paragraph (h), in subcontracts that are at or below the simplified acquisition threshold in part 2 of the Federal Acquisition Regulation.

(End of clause)

Section 00 73 00 Supplementary Conditions

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CLAUSES INCORPORATED BY FULL TEXT

UAI 5152.222-9000 CONTRACTOR SUPPLY AND USE OF ELECTRONIC SOFTWARE
FOR PROCESSING WAGE RATE REQUIREMENTS STATUTE CERTIFIED LABOR
PAYROLLS (APR 2011)

(a) The contractor is encouraged to use a commercially-available electronic system to process and submit certified payrolls electronically to the Government. The requirements for preparing, processing and providing certified labor payrolls are established by the Wage Rate Requirements statute.

(b) If the contractor elects to use an electronic payroll processing system, then the contractor shall be responsible for obtaining and providing for all access, licenses, and other services required to provide for receipt, processing, certifying, electronically transmitting to the Government, and storing weekly payrolls and other data required for the contractor to comply with the Wage Rate Requirements statute. When the contractor uses an electronic payroll system, the electronic payroll service shall be used by the contractor to prepare, process, and maintain the relevant payrolls and basic records during all work under this construction contract and the electronic payroll service shall be capable of preserving these payrolls and related basic records for the required 3 years after contract completion. If the contractor chooses to use an electronic payroll system, then the contractor shall obtain and provide electronic system access to the Government, as required to comply with the Wage Rate Requirements over the duration of this construction contract. The access shall include electronic review access by the Government contract administration office to the electronic payroll processing system used by the contractor.

(c) The contractor's provision and use of an electronic payroll processing system shall meet the following basic functional criteria:

- (1) commercially available;
- (2) compliant with appropriate Wage Rate Requirements statute payroll provisions in the Federal Acquisition Regulation (FAR);
- (3) able to accommodate the required numbers of employees and subcontractors planned to be employed under the contract
- (4) capable of producing an Excel spreadsheet-compatible electronic output of weekly payroll records for export in an Excel spreadsheet to be imported into the contractor's Quality Control System (QCS) version of Resident Management System (RMS), that in turn shall export payroll data to the Government's RMS;
- (5) demonstrated security of data and data entry rights;
- (6) ability to produce contractor-certified electronic versions of weekly payroll data;

(7) ability to identify erroneous entries and track the date/time of all versions of the certified Wage Rate Requirements statute payrolls submitted to the government over the life of the contract;

(8) capable of generating a durable record copy, that is, a CD or DVD and PDF file record of data from the system database at end of the contract closeout. This durable record copy of data from the electronic payroll processing system shall be provided to the Government during contract closeout.

(d) All contractor-incurred costs related to the contractor's provision and use of an electronic payroll processing service shall be included in the contractor's price for the overall work under the contract. The costs for compliance with the Wage Rate Requirements statute by using electronic payroll processing services shall not be a separately bid or reimbursed item under this contract.

(End of clause)

UAI 5152.231-9000 EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE (MAR 1995)

(a) This clause does not apply to terminations. See UAI 5152.249-9000, Basis for Settlement of Proposals, and Federal Acquisition Regulation (FAR) part 49.

(b) Allowable costs for construction and marine plant and equipment in sound workable condition owned or controlled and furnished by a contractor or subcontractor at any tier shall be based on actual cost data for each piece of equipment or groups of similar serial and series for which the Government can determine both ownership and operating costs from the contractor's accounting records. When both ownership and operating costs cannot be determined for any piece of equipment or groups of similar serial or series equipment from the contractor's accounting records, costs for that equipment shall be based upon the applicable provisions of Engineer Pamphlet (EP) 1110-1-8, Construction Equipment Ownership and Operating Expense Schedule, Region [insert Roman numeral for the appropriate region of the schedule]. Working conditions shall be considered to be average for determining equipment rates using the schedule unless specified otherwise by the contracting officer. For equipment not included in the schedule, rates for comparable pieces of equipment may be used or a rate may be developed using the formula provided in the schedule. For forward pricing, the schedule in effect at the time of negotiations shall apply. For retroactive pricing, the schedule in effect at the time the work was performed shall apply.

(c) Equipment rental costs are allowable, subject to the provisions of FAR 31.105(d)(ii) and FAR 31.205-36. Rates for equipment rented from an organization under common control, lease-purchase arrangements, and sale-leaseback arrangements, will be determined using the schedule, except that actual rates will be used for equipment leased from an organization under common control that has an established practice of leasing the same or similar equipment to unaffiliated lessees.

(d) When actual equipment costs are proposed and the total amount of the pricing action exceeds the simplified acquisition threshold (SAT), the contracting officer shall request the contractor to submit either certified cost or pricing data, or partial/limited data, as appropriate. The data shall be submitted on Standard Form 1411, Contract Pricing Proposal Cover Sheet.

(End of clause)

UAI 5152.236-9009 PARTNERING (FEB 2000)

In order to most effectively accomplish this contract, the Government proposes to form a partnership with the Contractor to develop a cohesive building team. It is anticipated that this partnership would involve the US Army Engineer District Mobile, the Contractor, primary subcontractors and designers, and the Corps of Engineers. This partnership would strive to develop a cooperative management team drawing on the strengths of each team member in an effort to achieve a quality project within budget and on schedule. This partnership would be bilateral in membership and participation will be completely voluntary. Any cost associated with effectuating this partnership, excluding travel and lodging cost of Government personnel, will be borne by TBD. The partnering meetings shall be held in TBD.

(End of clause)

UAI 5152.249-9000 BASIS FOR SETTLEMENT OF PROPOSALS (MAR 2009)

Actual costs will be used to determine equipment costs for a settlement proposal submitted on the total cost basis under Federal Acquisition Regulation (FAR) 49.206-2(b). In evaluating a termination settlement proposal using the total cost basis, the following principles will be applied to determine allowable equipment costs:

- (a) Actual costs for each piece of equipment, or groups of similar serial or series equipment, need not be available in the contractor's accounting records to determine total actual equipment costs.
- (b) If equipment costs have been allocated to a contract using predetermined rates, those charges will be adjusted to actual costs.
- (c) Recorded job costs adjusted for unallowable expenses will be used to determine equipment operating expenses.
- (d) Ownership costs (depreciation) will be determined using the contractor's depreciation schedule (subject to the provisions of Federal Acquisition Regulation (FAR) 31.205-11).
- (e) License, taxes, storage and insurance costs are normally recovered as an indirect expense and unless the contractor charges these costs directly to contracts, they will be recovered through the indirect expense rate.

(End of clause)

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SECTION 01 00 00

SPECIFICATIONS

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SECTION 01 00 00

STATEMENT OF WORK - SPECIFICATIONS

1. SCOPE OF WORK:

1.1. GENERAL: The scope of work to be covered by the intended contract is to perform maintenance dredging in navigation channels in Alabama, Mississippi, and Florida. All work will occur only as directed (assigned) by the Contracting Officer's Representative (COR). There is no guarantee as to the amount of work. If the Contracting Officer determines that the shoaling in the channels is greater than that which can be removed under this contract in a timely manner, contracts for additional dredges may be procured to work concurrently in the same general locations. The scope of this contract also provides for any other sizes and/or type of dredge other than those specifically called for in the specifications. The scope also includes supplying dredge related supplies and equipment such as tugs, barges, cranes, geotextile tubes, sheet pile, land based heavy equipment for disposal operations, and other marine equipment associated with channels and coastal restoration projects. Additional dredges and other marine equipment or materials such as geotextile tubes, sheet pile, additional hand labor crews, environmental monitors, divers etc., that are not specifically called for within these specifications will be negotiated with the individual task order. The Contracting Officer may elect to negotiate cubic yard task orders for some projects in lieu of the standard dredge rental rate or linear foot rate.

1.2. RENTAL OF DREDGE (Bid Item No. 2): The work to be performed under this portion of the contract will consist of the removal and satisfactory disposal of all material lying above project depth (or as directed by the COR), MLLW, over the bottom widths (full and/or partial) and applicable side slopes, at specific work location(s) all within the specified dredging limits of this contract. The COR will furnish the specific work location(s) (in advance) within those limits of the project during the contract life. All material excavated from the assigned channel segments will be transported and deposited into the assigned disposal area as discussed later in this specification.

1.2.1. RENTAL DREDGE PLANT: The work to be performed under this contract consists of furnishing and operating a hopper dredge with pump discharge of not less than 24-inch diameter nor more than 38-inch diameter complete with all necessary materials, supplies, labor, and transportation including fuel, power, and water for excavation operations as specified in the above paragraph. General excavation limits include all federally maintained channels in Alabama, Mississippi, and Florida, however, specific locations will be as directed by the Government within the total contract limits. More specific dredge and attendant plant requirements are discussed below.

1.3. GENERAL: All work, material and services not expressly called for in these specifications which may be necessary for complete and proper operations to carry out the contract in good faith shall be performed, furnished and installed by the Contractor at no increase in cost to the Government.

2. PRE-AWARD INSPECTION OF PLANT:

a. The apparent low bidder shall make his dredge and attendant plant available for inspection, to determine compliance with these specifications, as soon as practicable after bids are opened, and prior to contract award. If deficiencies are found during the inspection, the bidder will be notified by email or FAX. Upon receipt of such notice, the bidder shall correct all deficiencies at least two days in advance of the projected contract award date.

b. Two days before the projected award date, or upon notification by the bidder that the deficiencies have been corrected, a Government representative will re-inspect the dredge or plant. At that time, if the dredge and attendant plant do not meet the requirements of these specifications, then the bid will be rejected as non-responsive.

c. The Government may choose to waive the pre-award inspection, if such waiver is in the best interest of the Government. Waiver of the pre-award inspection does not relieve the bidder from the requirement to provide a dredge and attendant plant in full compliance with the specifications.

d. A post-award inspection will also be performed, in accordance with the clause "DELIVERY OF PLANT". Performance or waiver of the pre-award inspection will not affect the performance of a post-award inspection.

3. DELIVERY OF PLANT:

Delivery of the hopper dredge and attendant plant shall be completed within 21 days of the Notice to Proceed being issued. For bidding purposes, the mobilization site will be the **Mobile Bay Channel and Theodore Ship Channel intersection**. Upon arrival of the dredge and attendant plant at the delivery site, the dredge will be inspected by Government personnel to determine whether any deficiencies have developed subsequent to the time the plant was brought into compliance pursuant to the pre-award inspection. The Contractor will be notified of acceptance or rejection of the dredge and attendant plant. If accepted, the dredge will be given an assignment immediately.

4. ORDER OF WORK:

a. The order of work to be performed under this contract cannot be determined except as the work progresses. Successive dredging location assignments may be either upstream or downstream from the previous assignments, and may not be at consecutive or contiguous locations. Repetitive assignments may also be required at a given location.

b. Dredging assignments shall be determined by the Contracting Officer or his representative, and will be given to the Contractor's representative aboard the plant who is in charge of the operations. Assignments may be changed at any time without any prior notice. The Contractor may also be required to stop work at any time without completing an assignment.

There is no guarantee of specific work assignments or quantities under this contract.

c. The Contractor shall endeavor to meet the schedule of dredging operations as determined by the Contracting Officer. Operations shall be performed 24 hours a day, 7 days a week, including those days which have been declared by Congress to be legal holidays for per diem employees of the Federal Government.

5. COMPLETION OF ASSIGNMENTS:

As soon as the Contractor can determine the estimated completion time for the present assignment, he shall notify the Contracting Officer or COR of his best estimated completion time, during normal District working hours and not later than noon on Friday. The COR will determine the next assignment prior to the estimated completion time of the present assignment.

6. SERVICES TO BE FURNISHED TO THE GOVERNMENT:

a. The Contractor will be required to furnish, on the request of the COR or any inspector:

1. The use of such boats, boatmen, laborers, and material forming a part of the ordinary and usual equipment and crew of the floating plant, as may be reasonably necessary in inspecting and supervising the work.

2. Suitable transportation between the worksite and all points on shore designated by the Contracting Officer's representative, by means of the survey boat/inspector boat described in the technical specifications of the contract.

b. Equipment which fails to perform because of insufficient power or other mechanical difficulties or due to inexperienced operators shall be replaced, or the operator replaced, as appropriate, within 24 hours after the Contractor is directed to do so.

c. Should the Contractor refuse, neglect, or delay compliance with these requirements, the specific facilities may be furnished and maintained by the Contracting Officer, and the cost will be deducted from any amounts due or to become due the Contractor.

7. LOCATION OF SUBMERGED OBJECTS:

a. If the Contractor should locate a submerged object within the area of work, which endangers dredging operations or poses a hazard to general navigation, he shall note the location of the object, as determined from the electronic positioning system aboard the vessel. This location shall be reported to the Government inspector. Dredging in the immediate vicinity of the reported object shall be curtailed until the nature of the object and the degree of hazard can be determined. Dredging shall resume at the location of the reported object when the Contracting Officer determines that a hazard no longer exists.

b. If the Contractor issues a false report of a sunken object, the cost of the investigation

shall be deducted from any amounts due, or to become due, the Contractor.

c. This clause applies in the case of submerged objects or hazards which are created by others. Submerged objects or other hazards created by the Contractor shall be considered as misplaced materials.

8. LAYOUT OF WORK (1965 APR OCE):

The Contractor shall lay out the work assignments from the Government-established monuments, ranges, and gages indicated on the drawings (if furnished in Advertisement) and shall be responsible for all measurements in connection therewith. The Contractor shall furnish, at his own expense, all stakes, templates, platforms, equipment, range markers and labor as may be required in laying out any part of the work from the ranges and gages established by the government. The Contractor will be held responsible for the execution of the work to such lines and grades as may be established or indicated by the Contracting Officer. It shall be the responsibility of the Contractor to maintain and preserve all stakes and other marks established by the Contracting Officer until authorized to remove them. If such marks are destroyed by the Contractor or through his negligence prior to their authorized removal, they may be replaced by the Contracting Officer at his discretion. The expense of replacement will be deducted from any amounts due, or to become due the Contractor.

9. DATUM AND BENCH MARKS:

The plane of reference of Mean Lower Low Water (MLLW) as used in these specifications is that determined by monuments, bench marks and tide gages as shown on the contract drawings (if furnished in Advertisement) or as are on record in the office of the Site Manager, Irvington Site Office, Phone 251-957-6019 or Panama City Site office, Phone 850-784-9780. The Contractor should take note that there will be specific tide gages designated for specific tangents of the project work.

10. EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE (MAR 95):

a. This statement shall become operative only for negotiated contracts where cost or pricing data is requested, and for modification to sealed bid or negotiated contracts where cost or pricing data is requested. This clause does not apply to terminations. See UAI 5152.249-9000 - Basis for Settlement of Proposals - located in Section 00 73 00, and FAR Part 49.

b. Allowable costs for construction and marine plant and equipment in sound workable condition owned or controlled and furnished by a contractor or subcontractor at any tier shall be based on actual cost data for each piece of equipment or groups of similar serial and series for which the Government can determine both ownership and operating costs from the contractor's accounting records. When both ownership and operating costs cannot be determined for any piece of equipment or groups of similar serial or series equipment from the contractor's accounting records, costs for that equipment shall be based upon the applicable provisions of EP 1110-1-8, "Construction Equipment Ownership and Operating Expense Schedule," Region III.

Working conditions shall be considered to be average for determining equipment rates using the schedule unless specified otherwise by the contracting officer. For retroactive pricing, the schedule in effect at the time work was performed shall apply.

c. Equipment rental costs are allowable, subject to the provisions of FAR 31.105(d) (ii) and FAR 31.205-36. Rates for equipment rented from an organization under common control, lease-purchase arrangements, and sale-leaseback arrangements, will be determined using the schedule, except that actual rates will be used for equipment leased from an organization under common control that has an established practice of leasing the same or similar equipment to unaffiliated lessees.

d. When actual equipment costs are proposed and the total amount of the pricing action exceeds the small purchase threshold, the contracting officer shall request the contractor to submit either certified cost or pricing data, or partial/limited data, as appropriate. The data shall be submitted on Standard Form 1411, Contract Pricing Proposal Cover Sheet. Standard Form 1411 will be provided to the contractor if certified cost or pricing data is requested.

11. RADIO / INTERNET:

The Contractor shall furnish and maintain the following radios for communication with the Corps of Engineers, the United States Coast Guard, and other vessels: Radio(s) must be certified as being operable on the specified frequencies and powers by a licensed radio technician. A copy of the certification must be furnished to the Contracting Officer prior to final acceptance of the dredging plant.

a. A Marine VHF Radio, FCC type accepted with the following channels: Channel 16, (156.8 MHZ), Channel 13, (156.65 MHZ), Channel 12, (156.6 MHZ), Channel 14, (156.7 MHZ), and Channels 26 and 28 for public correspondence. A separate receiver must be provided on Channel 13, (156.6 MHZ) in compliance with Public Law 92-63.

b. The Contractor shall furnish and maintain an internet service so RMS, CE DREDGE and DQM can be accessed on the dredge for the government inspector's use.

12. DESIGNATION OF AUTHORIZED REPRESENTATIVE OF THE CONTRACTING OFFICER:

Effective the date of award and pursuant to FAR 1.602-2(d), The Contracting Officer Representative (COR), is delegated authority to act as the Authorized Representative of the Contracting Officer, without power of re-delegation, for the purpose of discharging the following duty of the Contracting Officer on this contract:

- a. Order work when and as required during the contract period.
- b. Determine acceptability of work performed.

c. Inspect all equipment furnished by the Contractor for use on the project and determine that it is suitable for use as required by the contract.

d. To approve payments.

The following delegated title will be used when signing any contractual document pursuant to this authority.

EXAMPLE: John Doe
Authorized Representative of the Contracting Officer

This delegation will remain in effect until completion of the contract unless sooner rescinded in writing by the Contracting Officer or his successor.

12.1. ADMINISTRATION OF CONTRACT: After award, this contract will be administered by the A-E and Construction Branch (CT), U.S. Army Corps of Engineers, Mobile district, P.O. Box 2288, Mobile, Alabama 36628-0001, telephone (251) 441-6161.

13. PHYSICAL DATA (APR 1984):

Information and data furnished or referred to below are furnished for the Contractor's information. However, it is expressly understood that the Government will not be responsible for any interpretation or conclusion drawn therefrom by the Contractor.

a. General: The physical conditions indicated on the drawings (if furnished in Advertisement) and in the specifications are the result of site investigations and surveys.

b. Location: The main location of work (excavation or dredging) to be done under these specifications is located in the existing Mobile Harbor project channels in the southwestern part of the State of Alabama, and approximately 80 miles by water from Pensacola Harbor, Florida, on the east and 61 miles by water from Pascagoula Harbor, Mississippi, on the west. Another area of work will be Pascagoula Bar Channel. Other potential areas of work under these specifications are in the existing federal channels located in Pensacola and Gulfport.

c. Subsurface Investigations:

(1) Mobile River, Bay and Bar Channels: Subsurface cable, pipeline and tunnel crossings are as indicated on the contract drawings (if drawings furnished in Advertisement). The Contractor shall be responsible for any damage, due to his negligence, to the cables, pipelines and tunnels occasioned by his dredging operations.

(2) Contractor's Investigation Responsibility: The Contractor should make his own investigation of submerged, surface and overhead structures in the work area and other locations he finds necessary to traverse. The exact location, depths and height of all submarine

cables, pipes, high lines, docks, piers, bulkheads bridges, etc. (as applicable), are not known and it will be necessary for the Contractor to ascertain interference problems and notify the respective owners in advance of dredging operations. The Contractor shall make all arrangements with the respective owners of the structure to assure satisfactory completion of dredging in the vicinity with a minimum interruption of service, and shall perform his operations in such a manner as will avoid damage to these facilities.

(3) No dredging will be done within 100 feet (horizontally) of any marine structures, wharves, or bulkheads in order that such structures will not sustain damage or be undermined by the dredging operations. Any such damaged structures, due to the negligence of the Contractor, shall be repaired or replaced by the Contractor at no expense to the Government.

d. Weather Conditions: The sites of the work are exposed to local disturbances in the Mobile Harbor, which may cause suspension of the work for short unknown periods of time. During tropical hurricanes which may occur from June to December, inclusive, the project channels do not afford a safe refuge for floating plant. There are no unusual currents except during floods, when velocities of 2 to 4 miles per hour may be expected; however, the Contractor should investigate all sites of work and determine for himself the requirements of the work. Under ordinary conditions, the Mean Tidal Range is 1.2 feet. The working season extends over the entire year. Tides in Mobile Harbor are affected by extended periods of strong north or south winds.

e. Transportation Facilities: Rail and highway transportation is available to Mobile, Alabama. Water transportation is available to the site of the work.

f. Channel Traffic: The traffic using the Mobile Bay and Bar Channel is considered large, including several lines of freight steamers, ore carriers, tankers, tugs, fishing and passenger boats. There is ample width in this channel to accommodate traffic without undue interference with the dredging operations specified herein. CAUTION: When navigation conditions become hazardous due to inclement weather (fog, storm, etc.) or other circumstances, the dredge and related equipment shall be moved to provide the maximum possible channel width (even full channel) for safe passage of any impending project traffic. The Contractor shall maintain appropriate communication with project traffic during such hazardous conditions. The Contractor shall particularly comply with all U.S. Coast Guard regulations pertaining to proper activation of fog (and any other) signaling devices (sound, light, etc.).

g. Obstruction of Channel: The Government will not undertake to keep the area and channel free from vessels or other obstructions, except to the extent of such regulations, if any, as may be prescribed by the Secretary of the Army, in accordance with the provisions of Section 7 of the River and Harbor Act approved 8 August 1917. The Contractor will be required to conduct the work in such manner as to obstruct navigation as little as possible, and in case the Contractor's plant so obstructs the channel as to make difficult or endanger the passage of vessels, said plant shall be promptly moved on the approach of any vessel to such an extent as may be necessary to afford a practicable passage. The Contractor is emphatically placed on notice that the work areas of this contract is a very heavy marine industrial, congested area. The

Contractor must layout his work (and equipment) in such a way not to restrict the docks, piers, bulkheads, etc. of the bank occupants. Upon the completion of the work, the Contractor shall promptly remove his plant, including ranges, buoys, piles, and other marks placed by him under the contract in navigable waters or on shore.

h. Character of Material: The material to be removed is predominantly the normal maintenance shoaling (silts and sands) and will have some debris (wood, metal, etc. as is normally found in a heavy marine industrial harbor environment). For the purposes of this solicitation, the material to be dredged shall be considered as unclassified. Some new work dredging could be encountered by the dredge plant.

14. PRECONSTRUCTION CONFERENCE:

a. A preconstruction conference will be arranged by the COR after award of contract and before commencement of work. The COR will notify the Contractor of the time and date set for the meeting. At this conference, the Contractor shall be oriented with respect to Government procedures and line of authority, contractual, administrative, and construction matters. Additionally, a schedule of required submittals will be discussed.

b. The Contractor shall bring to this conference all items listed in Section 01 33 00.

15. DREDGE AND ATTENDANT PLANT REQUIREMENTS (Bid Item No. 2):

15.1. DREDGE REQUIREMENTS: The dredge offered shall be capable of continuous operation and of sufficient size (not less than a 24-inch nor more than a 38-inch discharge) and with dragarm(s) of an appropriate length and construction to work efficiently in depths of up to 52 feet. The Contractor shall have available for use at all times a variety of serviceable interchangeable pump impellers (2 minimum), a spare pump case, and a spare serviceable draghead to permit the dredge to operate efficiently under varying conditions described in the paragraph entitled (PHYSICAL DATA). The dredge shall be capable of dredging upstream as well as downstream and will so operate as directed by the Contracting Officer. The following information was obtained from history and data banks from Operations Division, Mobile District Office:

Pump Discharge Diameter (IN)	Hopper Capacity (CY)	Base Hours	Dredge
*24	3600	4397	ISLE 1
**24	3600	4101	ISLE 2
27	4009	4286	RN WEEKS
26	4167	3708	NEWPORT
24	4387	3114	COLUMBIA
28	4023	3471	LINDHOLM
33.5	6400	2146	TERRAPIN ISLAND
33.5	9846	1464	STUYVESANT
28.5	4830	2923	BAYPORT

31.5	6466	1895	LIBERTY ISLAND
38	13572	983	GLENN EDWARDS

* Normal powered dredge for this size category

** Turbo charged dredge for this size category

15.1.1. BIDDING: The bidder shall use the above chart to select the hours to be inserted into the appropriate Bid Schedule from the class of dredge he intends to use. The total amount of hours to be inserted into Bid Items No. 2 shall be that shown above for the class of dredge to be used by the Contractor.

15.1.2. EVALUATION OF BIDS:

a. It is the intent of the Government to secure a dredge and/or dredges meeting the requirements set forth in these specifications and having a main pump discharge of not less than 24 inch diameter nor more than 38 inch diameter.

b. Hourly quantities have been determined based on the estimated quantity of shoal material to be removed, the size of the dredge pump and the operating characteristics of the hopper dredge, to provide fair competition between dredges of dissimilar sizes and production rates. Award will be to the lowest responsive, responsible bidder.

15.2. ATTENDANT PLANT:

a. Transport Vessel/Survey Boat: The contractor shall provide one transport vessel/survey boat, with twin propellers, not less than 40 feet in overall length, with enclosed space for three or more passengers after installation of all required contractor furnished survey equipment and survey party crew (Survey Equipment/Personnel defined elsewhere), to adequately operate and survey in the federal navigation channels, ocean disposal area, open water D/As and the area enroute to the ocean D/A. This vessel must have an operator on site at all times; capable of traveling at a speed of **20 knots** (23 MPH) or greater in good weather and capable of traveling safely at night and in intense fog; (such vessel shall meet or exceed US Coast Guard regulations for vessels 65 feet or less in length and have Certificate of Inspection (COI) or be inspected by a licensed Marine Surveyor, as applicable). This vessel shall be for the primary use of Government Inspector shift changes and government directed hydrographic surveying. The use of this vessel for contractor crew changes, or any other use of this vessel by the contractor shall be secondary to Government Inspector shift changes and government directed hydrographic surveys. This vessel shall be equipped with the following at a minimum: built in fuel tanks with correctly operating fuel gauges; marine and company radios; windshield wipers, running and spot lights; and all required survey equipment. The contractor shall secure a satisfactory landing location in the vicinity of the current assignment for this vessel. This location will vary depending on the assignment.

b. Survey Party: The Contractor shall furnish one full survey party available for 12 hr/day survey operations 7 days a week. The minimum full-time crew for the survey boat shall

be one qualified survey boat operator for the daylight shift, plus up to a 4 man survey party to perform surveys to support the entire dredging process. Also, a person responsible for processing and plotting of surveys shall be on board the dredge during the daylight shift. The survey party shall have a sufficient number of qualified personnel in order to adequately survey under any condition. The minimum qualifications for the chief surveyor shall be one of the following: Hydrographer Certification by American Congress of Surveying and Mapping or a minimum of 3 years of experience performing hydrographic surveys as the primary systems operator within the last 5 years. The party shall survey the current conditions of the area being dredged and continue surveying for shoals for future dredging while the prior survey is being processed on board the dredge. This survey party will perform the survey assignments, operating all necessary electronic positioning and computer equipment.

c. Survey Equipment: The Contractor furnished survey equipment must meet or exceed all requirements listed below as well as any other requirements referred to in these specifications:

(1) Positioning System: The positioning system must be capable of providing positional accuracies of the vessel within three meters or less. This system must have a proven track record and have the manufacturer's written backing stating the accuracy thereof. The system utilized must be capable of providing twenty-four hours, seven days a week positional coverage within the above stated accuracies, anywhere within the scope of work area without interruption of positional location. Both the dredge and survey vessel shall be equipped with a complete positional system. These systems shall be fully operational at all times. Any failure of said system will be corrected within 8 hours. If not corrected within said time frame the vessel with failed system may be directed to cease operations until corrected. The contractor, if properly equipped with a Global Positioning System, may utilize such a system as long as the accuracies are confirmed and documented during the use of the system. The positioning system and survey software will have the capability of providing visual guidance to the vessel operator and acquire positioning and guidance updates on no less than one second time increments.

(2) Sounding Equipment: The sounding equipment will consist of a sounding machine/device capable of providing updated soundings on no more than 1/20 second intervals and have an accuracy rating ± 0.5 feet. Sounding device will have analog charting (real time) within the device and will have all the capabilities of calibrating to a bar check utilizing the Norfork Method of bar checking. All depths acquired will consist of dual frequency soundings utilizing a high operating 208 kHz frequency transducer and a low operating 24/41 kHz frequency transducer (any frequencies other than those listed must be approved by the Authorized Representative of the Contracting Officer prior to use). Sounding data will be digitally acquired from both the high and low frequency transducers. The 24/41 kHz soundings will be shown in conjunction with the 208 kHz soundings on the analog chart of the sounding device. All soundings will be acquired on a continuous basis. Plotting of data shall be on the scale and size of the plot requirements as specified by the Authorized Representative in clearly legible print. These plots shall reflect the data gathered by the 208 kHz frequency unless otherwise requested by the Authorized Representative of the Contracting Officer. Any additional plotted data requested would be that data acquired by the 24/41 kHz. Volumes shall be computed from the 208 kHz frequency unless otherwise requested by the Authorized Representative.

These plots along with all digitally acquired data (for both 208 and 24/41 kHz) shall be provided to the Government as specified below.

(3) Acquired and Processed Data: The survey system will require a computer and software capable of handling all required data points and plotting of those data points. This system shall be capable of acquiring or converting all, unedited raw data (horizontal and vertical) to an IBM, ASCII compatible format prior to submittal to the Government. The ASCII format shall be compatible with the MS DOS Operation system. If the Contractor is utilizing HYPACK to perform his required surveys, the Contractor shall use the Government provided channel files. The Contractor shall submit the HYPACK project files for the specific survey performed. These files contain all the files that make up the survey including raw and edited, line, log, and tide files associated with each survey among others. Otherwise the Contractor shall use a system capable of acquiring and converting all unedited raw data (horizontal and vertical) to an IBM, ASCII compatible format prior to submittal to the Government. The ASCII format shall be compatible with the DOS operating system. Sounding files shall contain single line records. Each record shall contain the easting, northing, depth, date and time for one sounding. Each item in the record shall be separated by a space character (ASCII 32 (10)) and the record shall be terminated by a line feed with carriage return. Sounding files shall be no greater than 1.2 MB in size and shall contain the data for no more than 99 section lines. All records shall conform to the format shown below.

<u>East</u>	<u>North</u>	<u>Depth</u>	<u>Date</u>	<u>Time</u>
123456.78	876543.21	-42.3	01/15/07	14:22:13.3

Said survey system will provide a means of plotting all data points for submittal in hard copy form according to the following requirements: All plots submitted shall be provided on full size 22" x 34" (ANSI 'D' size) plot paper (half size, 11" x 17" if approved by the Authorized Representative) and delineate no less than the following: all nav. aids; north arrow; station annotation; channel limits (toe & center line); edited sounding data (corrected to MLLW); date of survey; grid ticks; surveyor's name; survey vessel name; contract number; and any other pertinent information. Scale of plan view plots shall be 1" = 200' and cross-sectional plots shall be plotted at a 1" = 100' horizontal scale unless otherwise specified by the Authorized Representative. Plan view plots for vessel tracking will delineate actual vessel track along the specific route taken and print depths acquired along the route on a scale clearly legible; cross-sectional plots will be plotted on hard copies which delineate the channel dimensions in a template format and plot all acquired sounding data points thereon; a plan view plot will be plotted in three different colors which will determine the depths above and below project depth. Colors will be determined by the Authorized Representative. A contour line drawn at the project depth, which will be given by the Authorized Representative, will be drawn showing said contour, all data acquired by the system will be provided on a CD-Rom in the format previously specified and in unedited form. All hard copy submittals shall consist of edited data and all supporting field notes.

d. Dredge Electronic Tracking Position: The Contractor shall be able to visually display continuous real time positioning of the dredge, by track plot or CRT screen, in relation to both

the before-dredging surveyed shoals and at the disposal area. Dredge location accuracy shall meet the requirement of the Corps' "Manual of Survey Instructions". A written discussion of the method the Contractor intends to use in order to satisfy these requirements shall be included in the Contractor's bidding schedule discussions.

e. Government Work Station: The Contractor shall furnish a computer workstation for use by the Government Inspector on board the vessel. An identical dredge electronic tracking system as mentioned in the paragraph above shall be provided to the Government inspector and equipped in the inspector's office.

16. PLANT MANAGEMENT:

16.1. GENERAL: Upon initiation of work, the Contractor shall execute the work assigned diligently, and at all times endeavor to meet the schedule of excavation (dredging) and disposal operations as determined by the Contracting Officer. The Contractor shall be expected to conduct excavation dredging and disposal operations seven days per week, twenty-four hours per day. The order of work to be performed cannot be determined except as the work progresses. The Contractor shall bear all direct, overhead and collateral expenses incident to the operation, upkeep and repair of all items of plant. He shall maintain the plant in a good state of repair, shall arrange for a supply of renewal parts to be on hand when needed for all plant and shall provide and maintain efficient personnel for each item of plant employed in connection with the work. Equipment will be in condition to render efficient, economical and continuous service and shall be equipped with all mechanical devices and equipment required by Federal, State and local authorities, provided that nothing in the paragraph shall be construed to limit the authority of the Contracting Officer to prohibit the use of any piece of equipment which, in the opinion of the Contracting Officer, is mechanically unsafe for use. Equipment which the Contracting Officer or his authorized representative considers does not perform in a satisfactory or efficient manner shall be repaired or replaced by the Contractor at the Contractor's expense within 24 hours after notification by the Contracting Officer or his authorized representative. Failure of the equipment to perform to the satisfaction of the Contracting Officer, and failure by the Contractor to effect timely replacement of the unsatisfactory equipment, shall be sufficient cause for the Government to procure replacement equipment and charge the Contractor for any excess costs associated therewith. The equipment shall be registered by the Contractor with all Federal, State and local authorities requiring registration, and registration plates or other evidence of registration shall be displayed in accordance with the requirements of the registering authority.

16.1.1. ORDER OF WORK AND INSPECTION: The work will be conducted as directed by the Contracting Officer and will be directed by Inspectors appointed by him who will enforce a strict compliance with the terms of the contract. The Inspectors will keep a record of the work done and see that the gages, ranges, and other marks are kept in proper order; but the presence of the Inspector shall not relieve the Contractor or his responsible agent of any responsibility for the proper execution of the work in accordance with the contract and directives of the Contracting Officer issued thereunder. The Contractor will be required (not withstanding contract requirements at other points).

a. To furnish on the request of the Inspectors the use of such boats, boatmen, laborers, and material forming a part of the ordinary and usual equipment and personnel of the plant as may be reasonably necessary in directing the work.

b. To furnish on the request of the Contracting Officer or his authorized representative suitable transportation from all points on shore designated by the Contracting Officer to and from the various pieces of plant and to and from the disposal areas. Should the Contractor refuse, neglect or delay compliance with these requirements, the specific facilities may be furnished and maintained by the Contracting Officer and the cost thereof will be deducted from any amounts due or to become due to the Contractor.

16.2. INSPECTION OF PLANT: The dredge plant will be inspected by the Contracting Officer or his representative to ensure total dredging plant required under the contract has been mobilized and is in safe working condition.

a. Contractor's Obligation to Inspect. Before any machinery or mechanized equipment is placed in service it shall be inspected and tested by contractor and certified to be in safe operating condition using Safety Survey Checklist for Floating Plant and Safety Inspection Checklist for Mobile Construction Equipment forms as prescribed by EM 385-1-1. Records of these tests and inspections shall be provided to the Government prior to Government inspection and shall be maintained at the site by the contractor.

b. Safety Inspection. Upon completion of mobilization, before starting work, and after the checklist forms are provided to the government, a safety inspection will be conducted by the Government. The safety inspection will be conducted using the checklist as a guide to denote any deficiencies.

c. Clearance to Begin Work. Upon completion of the safety inspection a list of deficiencies will be compiled and copies given to the contractor for corrective action as required. If in the opinion of the Contracting Officer the plant is unsafe or does not meet the terms of the specifications clearance to begin work will not be given. In the absence of any deficiencies, the plant will be put to work. Failure of the Contractor to provide dredge plant complying with requirements of the contract specifications or safety deficiencies preventing commencement of work could be cause for termination for default.

d. Inspections. Inspections performed by the Government does not relieve the contractor of his responsibility to perform his own inspections of plant to assure a safe working environment at all times in accordance with contract specifications, the latest version of EM 385-1-1 and his Accident Prevention Plan.

e. Hopper Leakage Test. During the safety inspection the dredge will be required to take on water equivalent to the hopper capacity as rated in the above table. In order for the dredge to begin work it must have no more than a 5% loss in a one hour (1 hr) period. This test may be performed again at any time during the contract when an indication of leakage exists. Should the dredge fail said test the dredge will be on 0% pay for the entire test period and until leakage is

repaired; if the dredge passes said test it will be paid at a 70% rate for the time to perform leakage test.

16.3. TERMINATION OF WORK: It is anticipated that upon completion of the excavation assignment(s) all the plant will be released to the Contractor. However, the Contracting Officer, by written notice, may terminate this contract, in whole or in part, when it is in the Government's interest. If this contract is terminated, the Government shall be liable only for payment under the payment provisions of this contract for services rendered before the effective date of termination.

16.4. DREDGE SUSPENSION AND WORK FOR OTHERS:

16.4.1. PRIVATE WORK RELEASE: By mutual agreement of both the Contractor and the Contracting Officer, the dredge may be released from this contract (with Government approval) for short periods of time to perform work for others in the same vicinity. The dredge shall, however, be returned to operations under this contract within 48 hours after notice by the Contracting Officer to resume such contract work.

16.4.2. DREDGE SUSPENSION/RELEASE: The Contracting Officer may suspend the dredge for extended periods of time to allow the Contractor to perform work for other Corps Districts. The Contractor may request to be released or the Contracting Officer may unilaterally suspend work to allow the dredge release. The dredge shall remain on 10-day call by the Contracting Officer during the suspension/release period. Regardless of the pay status of the dredge at the time it is released, the dredge will immediately go to a non-pay status, and remain so until it is recalled to work. Demobilization at the time of release, and mobilization at the time of recall, will not be paid. Payment will cease when the last load is dumped prior to release. Payment will resume if the dredge is recalled to an assignment under this contract and when the dredged material starts flowing into the hopper. The return from the dump will be estimated and paid for, based on return time from loads previous to demobilization. The contract may be terminated during the suspension/release time period if the Contracting Officer determines that termination is in the best interest of the Government.

16.5. WORK LAYOUT: Dredging limits will be designated at each assignment by coordinates and/or channel centerline station. The Contractor shall furnish, at its own expense, all stakes, pipe, equipment, range markers and labor as may be required to maintain any part of the work from the ranges and gages established by the Government and to check for verification starting and stopping points on each shoal area. It shall be the responsibility of the Contractor to maintain and preserve all stakes and other marks established by the Contracting Officer until authorized to remove them, and if such works are destroyed by the Contractor through his negligence prior to their authorized removal, they may be replaced by the Contracting Officer at his discretion. The expense of replacement will be deducted from any amounts due or to become due to the Contractor.

17. DREDGING (EXCAVATING OF SHOALS):

17.1. General: The shoals removed during this contract shall be transported and satisfactorily

deposited into a designated ocean dredged material disposal area or open water site. The specific location of the disposal area shall be furnished at the Preconstruction Conference or as necessary during this contract.

17.2. Dredge (excavation) Plant Instrumentation: All dredge (excavation) plant utilized on this contract shall be instrumented to monitor the location of the dredge during excavation and disposal as specified herein. The data produced by this instrumentation will be collected by automated (computer-digitized) means and stored in an IBM compatible format, DOS Operating System, ASCII format. The Contractor's initial submittal shall include written instructions to explain the data format used. All data will be tied to the date and real time of day with data point intervals not greater than five (5) minutes. The data will be submitted to the Government weekly on CD Rom.

17.2.1. As stated in section 35 20 23.23 DQM, the following elements will be monitored, as a minimum:

- a. Dredge I.D. designation.
- b. Dredge location by coordinates and by cut(s), i.e. east, west, center, 1, 2, 3, etc. and whether first cut or redredge and stationing of current assignment.
- c. Dredge deposition horizontal location.

17.2.2. The Dredge Plant Instrumentation is a part of the dredge plant and must be functional at all times. If failure of any part thereof occurs the Contractor will be expected to repair the failed part within the next 36 hours restoring full operations. If failure to repair does not occur in that period, the particular plant affected will be considered non-responsive to the contract requirement and will either be replaced or a redundancy part added to render the plant fully operational to include the monitored data, all at no additional increased price or time to the contract.

17.3. Disposal of Excavated Material: Excavated material shall be transported to and disposed of in the proper disposal area as described below and as depicted on the contract drawings (if provided). The Contractor will develop his disposal procedures based on these requirements/restrictions. The Contractor will submit a DEPOSITION PLAN to the Contracting Officer for approval prior to disposal of any dredged material under this contract. The Contractor's DEPOSITION PLAN shall be completely explanatory and include all assumptions, statements of fact, computations and a narrative to fully explain the procedures that the Contractor will follow during the contract. The Contractor's DEPOSITION PLAN will address each different disposal situation.

17.4. The Government will be monitoring turbidity throughout the life of the contract to ensure the Contractor complies with permit requirements for this contract. The Contractor shall provide a turbidity meter equivalent to a HACH 2100 Portable Turbidimeter. Turbidity shall not exceed the limits specified in the Water Quality Certification for the project. If turbidity resulting from the project exceeds these levels, the Contractor will cease dredging and notify the COR.

17.5. Misplaced Dredged Material: Any dredged material deposited at locations other than in areas designated or approved by the Contracting Officer will be considered misplaced material and will not be paid for until the Contractor, at his own expense, removes and redeposits the misplaced material. Any necessary disposal site restoration work shall not be the basis for a time extension or additional compensation under this contract.

18. **COMPANY REPRESENTATIVE**: With reference to the paragraph entitled PLANT MANAGEMENT and section 01 45 01, the Contractor's Representative shall be on the actual work site (dredge) at all times. The Government Representative shall issue work instructions to the Contractor's Representative. The Contractor's Representative will direct the actual performance of the equipment. No definable feature of work shall be performed without the Contractor's Representative being present.

19. **REPORTING REQUIREMENT**: The Contractor will be required to prepare and submit a Daily Report of Operations, ENG Form 27A, for all dredging work activities (as appropriate). The Contractor will also be required to attach a copy of the Mate's Log pages which cover the 24 hour period being reported to the ENG Form 27A. The original Mate's Log must be given to the Government's Representative at the completion of the project. Contractor shall also submit daily report SAM Form 696 (See paragraph 24.2.b). All reports must be submitted on a daily basis and not in groups. A reduced sample of each form for recording the required information is bound herein. In addition to the two (2) daily dredging reports required, the Contractor shall prepare a Monthly Report of Operations for each month or partial month's dredging work on ENG Form 27A. The monthly report is to be submitted to the Contracting Officer's Authorized Representative on or before the 7th of each month, consolidating the previous month's work. Further instructions on the preparation of the reports will be furnished at a Preconstruction Conference. Upon completion of the job, the Contractor shall submit a consolidated job report, combining the monthly reports, within seven calendar days of contract completion. The Contractor shall submit the original and one copy of each report to the Contracting Officer's Authorized Representative.

20. NOTICES:

a. The Contractor shall give the Contracting Officer 5 days advance written notice of the date he plans to commence work under this contract in order that Government required actions may be commenced sufficiently in advance of the Contractor's operations and that baselines and other controls may be adequately installed.

b. The Contractor shall work on holidays, week-ends, etc., 24 hours per day, 7 days per week. Adequate lighting for thorough inspection of night operations will be provided by the Contractor at his expense.

21. **GENERAL SAFETY REQUIREMENTS**: Contract Clause entitled, ACCIDENT PREVENTION, requires an accident prevention program which incorporates safety features and procedures from EM 385-1-1, (latest edition), entitled "U.S. Army Corps of Engineers Safety and Health Requirements Manual" that are applicable to all aspects of Contractor dredging

operations. In addition to these features, the following safety requirements shall be incorporated into the Contractor's accident prevention program:

21.1. The Contractor shall designate a "plant fleeting area" in which all non-used portions of plant shall be stored. Such area shall have "hazardous area" buoys which are properly placed and marked with reflective tape to give the boating public adequate warning of the fleeting area while traveling at night. Additionally, a prominent lighted warning sign (as specified in EM 385-1-1) shall be displayed on the equipment in the fleeting area. Such signs shall have reflective borders and shall be well lighted.

21.2. All plant, used or idle, shall be inspected at least once per shift by the contractor and government inspector (if inspector is on shift) to assure that buoys, signs, and lights are in place and that all lights operate properly. Daily reports of both the contractor and government inspector shall identify the inspectors and reflect the time of the inspection of plant in use and of plant at the fleeting area. An adequate number of reserve batteries and lights shall be stored on the dredge at all times in order to restore non-functioning lights.

21.3. At all public boat marinas within 10 miles of dredging operations or moored equipment, a sturdy and prominent warning sign shall be displayed, (reference drawing of example sign at end of this advertisement entitled: "Warning Sign"). The Contractor will be responsible for keeping this sign current with respect to his dredging operations or equipment. Such sign shall have red lettering and castles on white background with a red reflective border. Adequate spacing should be provided to allow for listing of two work sites. A map showing the location of all Warning Signs shall be submitted to the Government. Final Payment will be withheld until all warning signs are removed.

21.4. The Contractor shall increase public awareness of potential hazards presented by dredge plant equipment stating: location, date of construction, equipment mooring, marshalling areas, etc., by: Ensuring that an announcement of the beginning of the dredging operation receives publicity in local newspapers/radios/television/waterway users association/etc. Periodic updates/status announcements should be made at intervals (suggest monthly) throughout the contract life.

22. PAYMENT:

22.1. Mobilization and Demobilization of Dredge and Attendant Plant (Bid Item No. 1.): (See Special Contract Requirements.) All cost associated with mobilization and demobilization of all dredge plant and dredge attendant plant under Bid Item No. 2 will be included in the contract lump sum price for Mobilization and Demobilization, Bid Item No. 1. This shall include any and all costs to adapt, modify, reconstruct, and/or reconfigure the dredge plant and/or the attendant plant to such a configuration capable of conducting this contract work. No separate payment shall be made for any such configuration preparations and payment of this Bid Item is considered complete compensation for such actions. The Contractor will be entitled to invoice for 60% of the mobilization and demobilization line item after all required equipment is delivered to the designated work site and material is passing through the dredge. The remaining 40% will be due

after all equipment is removed from the work site and proper receipt is received by the Government.

22.2. Dredging 100% Pay Time (Bid Item No. 2.): 100% Pay time shall begin on the date and hour when the dredge actually commences dredging operations (defined as shoal material moving through pump and deposited into the hopper) on the initial assignment. There is no eligible 70% Pay Time or 40% Pay Time prior to eligible 100% Pay Time. The actual number of hours of work required may be more or less than the estimated amount shown in the contract. Payment for work on an assignment will stop upon completion of the work assignment as determined by the COR.

22.2.1. 100% Pay Time (Bid Item No. 2.): Actual time of dredging when the dredge is under operation, with the dredge's pump system satisfactorily moving material, and such material is being properly deposited into the hopper. This item will include applicable turning time that facilitates loadings operations at the shoal (dredging) assignment. Also time involved in round trip transport of material from location of excavation to and through the disposal site and back to the excavation location or new assigned location if so directed by the Government; the disposal process (dropping of hopper load into D/A or pumping out into open water site) will be included in the payment under this bid item. During the movement periods, the Contractor shall at all times maintain the average operating strengths of each watch and be ready to commence preparing the dredge before and after a movement between work locations. Payment will be made monthly at the contract price per hour calculated to the nearest one sixtieth (1/60) hour.

22.2.2. 70% Pay Time: The following time will be paid for monthly at 70% of the contract price per hour calculated to the nearest one sixtieth (1/60) hour:

a. Actual time lost due to traffic in ALL areas. This excessive time shall be calculated by using the following method: Subtract the reduced speed from the full speed to determine the reduction in speed. Multiply the reduction in speed by the duration of the reduction and divide the resulting distance by the full speed of the dredge to calculate the time lost. The full speed rate and the reduced speed rate can be obtained either by using the DQM data and/or the mate's noted observations.

b. Actual time lost up to but not in excess of four hours due to dredge shut-downs authorized by the Contracting Officer, for the purpose of replacing the pump impeller with either a different diameter impeller or an impeller of a different number of vanes than that of the impeller being used. The intent of payment for delays authorized by the Contracting Officer to permit the Contractor to change pump impellers is to obtain the greatest efficiency of pump operations under changing conditions, such as, varying materials, but it is not the intent to pay for replacing worn out impellers or impellers that have lost their efficiency because of wear of either impellers or pump liners.

c. Actual time lost due to removal of logs, driftwood, etc. from the draghead, pump, pipeline, etc.

d. Actual time for moving to a different project location (i.e. from Mobile Bay to Pascagoula Sound): 70% payment will begin from the previous work assignment's designated Disposal Area until material is passing through the pump(s) at which time the payment will revert back to 100% payment for Bid Item No. 2.

e. When weather conditions, i.e. fog, storm, hurricane, are of such intensity as to require cessation of dredging operations is further clarified hereby. If the cessation of dredging operations results in the dredge plant standing by at, or near, the work site (anchored) and the full crew remains on duty, then payment will continue at the 70% pay rate for the duration of the cessation. If the cessation of operations results in the dredge plant being moved to a point of dockage or safe harbor (if so directed by the Authorized Representative of the Contracting Officer) where the dredge is shut down except for a required fire watch and other minimum crew for necessary operations, then the payment will be: at the 70% pay rate, to and from the work area and designated dockage point, and at the 40% pay rate while at the dockage point.

f. Time lost when the dredge's speed is reduced due to adverse weather conditions. This excessive time shall be calculated as detailed for traffic delays in paragraph 22.2.2 a.

g. Time incurred during a successfully passed leak test as required by paragraph 16.2.e.

22.2.3. 40% Pay Time: When weather conditions are such that they will preclude economical and efficient dredging operations, the Contracting Officer may elect to place the total dredge plant in a standby status until conditions are favorable for economical and efficient dredging operations. When the Contracting Officer directs that the total dredge plant be placed in a standby status, the Contractor will cease dredging operations and/or preparations for dredging operations, and will secure the total dredge in a location approved by the Contracting Officer. This may be a directed long term docking of the vessel by the Government for reasons other than that caused by the Contractor. Actual time lost due to circumstances uncontrollable by the Contractor. If the dredge is damaged, while on 40% pay time due to the weather conditions, the dredge will be placed on 0% pay time until the repairs are made and the dredge becomes fully operational at which time the dredge will be placed back on the applicable pay status.

22.2.3.1. The standby status will be measured and paid for by the hour measured to the nearest 1/60th of an hour at the rate of 40% of the 100% pay time rate for effective dredging.

22.2.4. 0% Pay Time: Payment will not be made for:

22.2.4.1. Lay time after arrival at a new work location when such time is incurred at the direction of the Contractor's representative or when, through the negligence of the Contractor, part of the necessary equipment needed to prepare the plant before and after a given move is not available, no payment will be made for the period of delay.

a. Time incurred during a failed leak test as required by paragraph 16.2.e.

b. Time lost due to stoppage of work due to safety violations.

c. Time of the complete cycle during which the material is placed outside of the assigned disposal area.

22.2.4.2. Shutdowns to stop leaks in pipeline, repair to dredge, pull a line together when the joints open up, replace damaged pontoons, except when pontoons are damaged by drift. Discharge line must be in use for conditions to apply.

22.2.4.3. Any time or purpose other than that enumerated above, except for mobilization and demobilization, including cleaning plugged line, removing misplaced material, dredging for others, shutdowns due to safety, shutdowns due to refueling, insufficient crew size, etc.

22.2.4.4. Any time the dredge is moved from the site of work at the Contractor's convenience.

22.2.4.5. Hours of darkness when the contractor chooses not to work. If the contractor chooses to place both crew shifts on daytime hours, the contractor will be 0% pay status at night.

22.3. Mobilization and Demobilization Trawler (Bid Item No. 3): All cost associated with mobilization and demobilization of all necessary man power and equipment to perform trawling operations as described in the SECTION 01 57 20.00 10. For estimation purposes assume the mobilization site to be the Pascagoula Bar Channel.

22.4. Sea Turtle/Gulf Sturgeon Trawling (Bid Item No. 4):

Payment will include all costs associated with providing the trawler, sea turtle/gulf sturgeon observers and all items necessary to comply with the specifications, all environmental permits and the Regional Biological Opinion.

22.9. Reduced Percentage of Payment: Should any portion of the dredge plant become inoperable with the dredge still able to operate at a reduced rate of performance, the hourly rate of payment will be reduced by the same percentage as the reduction in dredge performance as compared to the fully operational dredge performance. See section entitled "PLANT MANAGEMENT" for other provisions regarding time allowed for repair.

23. NAVIGATION AIDS: Navigation aids located within or near the areas required to be dredged will be removed, if necessary, by the U.S. Coast Guard in advance of dredging operations. The Contractor will notify the Contracting Officer of any aids which will be required to be relocated to facilitate dredging. The Contracting Officer will then request the U.S. Coast Guard to relocate the aids.

24. QUALITY CONTROL:

24.1. Electronic positioning: While performing all excavation (dredging) work under this contract the contractor shall control the horizontal positioning of the dredge and make all required surveys with electronic positioning equipment. The dredge's electronic positioning equipment shall be installed and operated at all times.

24.2. The contractor shall establish and maintain quality control for operations under this section to assure compliance with contractual requirements and maintain records of his quality control for qualification of survey personnel, and accuracy and completeness of required survey work, including but not limited to the following:

a. Survey work shall be performed by survey personnel in accordance with "Manual of Survey Instructions", copies of which are available for review at the Mobile District Office. All responsibilities for accuracy, completeness and verification of survey work so performed shall remain with the Contractor.

b. Daily reports shall be made by the Contractor and shall be prepared using SAM Form 696 and 27A, attached hereto. All reports shall be prepared daily and signed by the Contractor's authorized representative and submitted to the Government's representative on the next duty day following the surveying activity. Said reports shall include, but not be limited to: equipment used; location, description, and type work performed; inspections of said work; verbal instructions received and actions taken; safety; and causes for delays.

c. The Contractor shall be responsible for protection of all vegetation and/or property within surveying areas. Should any portion of said survey work require tree trimming, or in anyway, use of private property or facilities, specific written consent shall be obtained by the Contractor from the affected owner prior to said survey action.

d. All survey work is subject to periodic inspection and/or verification by the Government during or after such work. Should any portion of the surveys be found to be in error it shall be the responsibility of the Contractor, at no cost to the Government, to correct such errors. Presence of the Government Representative on the work site does not release the Contractor of his responsibility for providing quality control of the required survey work and does not release the Contractor from the responsibility of taking necessary corrective action should errors be found. The determination of acceptable and unacceptable dredged channel remains the responsibility of the COR.

24.3. All surveys for open water disposal areas, baselines, hydroranges, cutting ranges and all other necessary survey work are to be performed by standard survey methods as referenced in Paragraph 24.2.a. Soundings shall be made at such intervals specified by the Government and to an accuracy of ± 0.5 foot. Tide will be observed and recorded every half hour, in addition to the beginning and ending of the survey. Tide heights will be read and recorded to the nearest 0.1 foot. All baselines and all markers, whether land or water based, shall be tied to existing land based survey markers using channel center line coordinates furnished by the Government. Then such survey work shall be clearly and completely recorded in standard field books, and shall be made available for inspection and/or verification by representatives of the Government. Said books shall, upon or before completion of the requirements of this contract, become the property of the Government. All poles, stakes, flagging, books, and/or other survey materials shall be furnished by the Contractor.

25. TASK ORDERS, DELIVERY, COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK:

a. Task Orders will be issued continuously, however, after the dredge has been released, additional task orders may be issued if the dredge is available for additional work.

b. In the event that the Contractor has a conflict of schedules due to other Government contracts either with this district or other Corps districts, the Contracting Officer may elect to allow a substitute dredge to perform work during the interim time prior to the arrival of the originally proposed dredge. This substitution will only be allowed if the substitute dredge meets all the requirements of this solicitation and it is determined that the substitution is in the best interest of the Government. Any substitution will be by contract modification and the Contractor may experience delays or down time as a result of the required modification process. Any delay will be at the contractor's expense. There will be no increase in contract price by said modification but the unit hourly rate may be adjusted by the percentage variation between the evaluation chart's hours for each dredge as listed in the contract. The Contractor is still required to meet both the percentages stated in the paragraph entitled Performance of Work by the Contractor and the commencement and prosecution times stated below.

c. The Government reserves the right to suspend operations whenever, in the opinion of the Contracting Officer, conditions will make dredging operations and disposal impracticable or uneconomical. If during the period of suspension ordered by the Contracting Officer, the dredge and attendant plant are removed at the convenience of the Contractor from the site of assignment from which operations were suspended, the plant shall be returned to operations under the contract within ten (10) calendar days after receipt by the Contractor of notice to resume operations.

d. In the event of suspension as outlined in subparagraph "c" above, the dredge and attendant plant shall not be removed from the site of work or from the area in which standing by, unless expressly consented to by the Contracting Officer.

e. Failure of the Contractor to comply with the requirements of the contract specifications will be cause for termination for default. Termination for default will be immediate, by written notice.

26. POTABLE WATER:

Testing of all potable water storage facilities and dispensing systems with a storage capacity of ten or more gallons, will be conducted by an independent testing laboratory approved by the Contracting Officer as follows:

a. Prior to the commencement of work.

b. Minimum of monthly, after start of work for the duration of the contract.

c. After any repairs or modifications are made to the potable water storage or dispensing systems.

d. After any intake of potable water into the storage system.

All samples shall meet state and local water quality standards for potable water. A copy of all test results will be forwarded to the Contracting Officer within seven working days for his review.

In the event a tested sample fails to meet state and local water quality standards, all dispensing outlets connected to the failing water storage shall be labeled as non-potable and other means of potable water shall be obtained until water quality can be provided to meet the required standards.

To insure potable water maintains water quality standards all portable potable water dispensing units shall be checked daily for cleanliness. All hoses used in the transfer of potable water shall be conspicuously marked and kept in such a manner as to keep them from being contaminated. These hoses shall be used for potable water transfer only.

27. PERFORMANCE EVALUATION OF CONTRACTOR:

As a minimum, the Contractor's performance will be evaluated upon final acceptance of the work. However, interim evaluation may be prepared at any time during contract performance when determined to be in the best interest of the Government.

The Contractor will be rated either exceptional, very good, satisfactory, marginal or unsatisfactory in the areas of Quality, Schedule, Cost Control, Management, Utilization of Small Business, Regulatory Compliance and Safety. The Contractor will be advised of any unsatisfactory rating, either in an individual element or in the overall rating, prior to completing the evaluation, and all Contractor comments will be made a part of the official records. Performance Evaluation Reports will be available to all DOD Contracting offices for their future use in determining Contractor responsibility, in compliance with FAR Part 42.15.


ATTACHMENT 1

Hopper Speed Chart

Island 1	Island 2	Weeks	Newport	Columbia	Lindholm	Terrapin	Stuyv.	Bayport	Liberty	Glenn E	
1500000	1500000	1500000	1500000	1500000	1500000	1500000	1500000	1500000	1500000	1500000	Gross Yardage
3594	3594	4009	4167	4387	4023	6400	9846	4830	6466	13572	Hopper Capacity
300	300	450	230	110	450	100	1000	250	87	270	Retained Material
3294	3294	3559	3937	4277	3573	6300	8846	4580	6379	13302	Effective Capacity
1976.4	1976.4	2135.4	2362.2	2566.2	2143.8	3780	5307.6	2748	3827.4	7981.2	60% Load
26.6	26.6	26.6	26.6	26.6	26.6	26.96	27.32	26.6	26.96	26.96	Haul Distance
9.87	10.56	9.19	9.67	11.8	12.26	10.89	11.44	10.34	12.19	11.81	MPH Loaded
10.97	11.97	10.54	11.02	12.3	12.42	11.88	12.78	12.54	13.62	11.76	MPH Light
2.70	2.52	2.89	2.75	2.25	2.17	2.48	2.39	2.57	2.21	2.28	Travel Time to Dump
2.42	2.22	2.52	2.41	2.16	2.14	2.27	2.14	2.12	1.98	2.29	Travel Time to Cut
0.5	0.5	0.5	0.5	0.75	0.5	0.5	0.5	0.5	0.5	0.5	Pump, turn, dump time
5.62	5.24	5.92	5.66	5.17	4.81	5.25	5.03	5.19	4.69	5.08	Total Cycle time
758.96	758.96	702.44	635.00	584.52	699.69	396.83	282.61	545.85	391.91	187.94	Number of cycles
4265.20	3977.81	4157.19	3597.01	3020.13	3366.47	2081.36	1420.37	2835.01	1838.49	953.87	Total Hours
4397	4101	4286	3708	3114	3471	2146	1464	2923	1895	983	97% efficiency Hours

The graphic format for this 4'x 6' sign panel follows the legend guidelines and layout as specified below. The large 4'x 4' section of panel on the right is to be white with black legend. The 2'x 4' section of the sign on the left with the full Corps signature (reverse version) is to be screen printed Communications Red on the White background.

This sign is to be placed with the Safety Performance Sign (See Fig. 5d).

3"	21"	3"	42"	3"
4.5"	<p>Design and Construction Supervised by</p>  <p>US Army Corps of Engineers South Atlantic Division Mobile District</p>	<h1>Name of Project</h1> <p>Location: City and State</p> <p>Design By: US Army Corps of Engineers Mobile District</p> <p>Contractor: Name City and State</p>	6"	
2"			4.5"	
6.25"			4.5"	
10.5"			6"	
2.5"			2.25"	
2"			9.5"	
			1.875"	
			1.875"	
	1.875"			
	1.875"			
	7.75"			
3"	21"	1"	21"	3"

Legend Group 1: One to two-line description of Corps relationship to project
Color: White
Typeface: 1.25" Helvetica Regular
Maximum line length: 19"

Legend Group 2: Division\ District Name Placed below 10.5" Reverse Signature (6" Castle).
Color: White
Typeface: 1.25" Helvetica Regular

Legend Group 3: One- to three-line project title legend describes the work being done under this contract.
Color: Black
Typeface: 3" Helvetica Bold
Maximum line length: 42"

Legend Group 4: One- to two-line identification of project or facility (civil works) or name of sponsoring department (military).
Color: Black
Typeface: 1.5" Helvetica Regular
Maximum line length: 42"

Cross-align the first line of Legend Group 4 with the first line of the Corps Signature (US Army Corps) as shown.

Legend Groups 5a-b: One- to five-line identification of prime contractors including: type (architect, general contractor, etc.), corporate or firm name, city, state. Use of Legend Group 5 is optional.
Color: Black
Typeface: 1.25" Helvetica Regular
Maximum line length: 21"

All typography is flush left and rag right, upper and lower case with initial capitals only as shown. Letter- and word-spacing to follow Corps standards

Sign Type	Legend Size	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
CID-01	Various	4' x 6'	4" x 4"	HDO-3	48"	WH-RD/BK

CONSTRUCTION SIGN (CORPS OF ENGINEERS DESIGN)

(Use with Fig 5c)

Fig. 5b

All Construction Project Identification signs and Safety Performance signs are to be fabricated and installed as described below. The signs are to be erected at a location designated by the contracting officer and shall conform to size, format, and typographic standards.

The sign panels are to be fabricated from .75" High Density Overlay Plywood.

Sign graphics to be prepared on a white non-reflective vinyl film with positionable adhesive backing.

All graphics except for the Communications Red background with Corps signature on the project sign are to die-cut or computer cut nonreflective vinyl, pre-spaced legends prepared in the sizes and typefaces specified and applied to the background panel following the graphic formats shown.

The 2' x 4' Communications Red panel (to match PMS-032) with full Corps signature (reverse version) is to be screen printed on the white background identification of the District / Division may be applied under the signature with white cut vinyl letters prepared to Corps standards

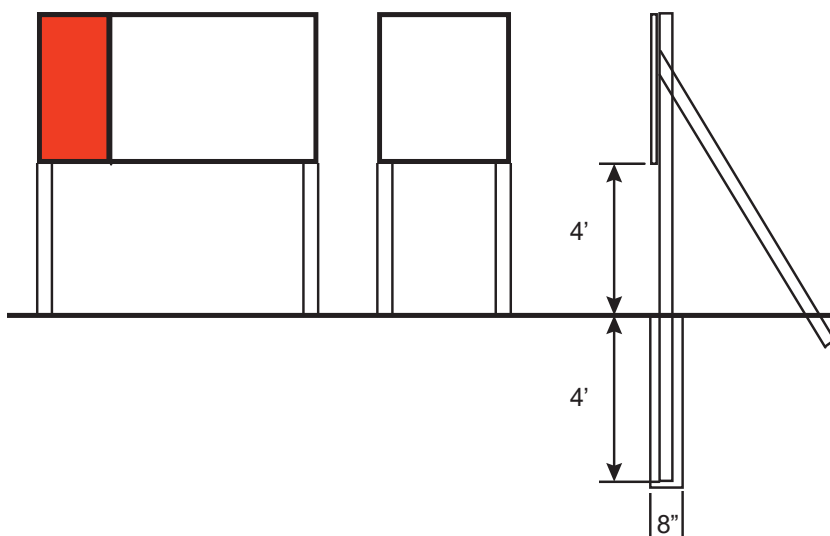
Drill and insert six (6) .375 T-nuts from the front face of the HDO sign panel. Position holes as shown. Flange of T-nut to be flush with sign face

Apply Graphic panel to prepared HDO plywood panel following manufactures instructions

Sign uprights to be structural grade 4" x 4" treated Douglas Fur or Southern Yellow Pine. No 1 or better. Post to be 12' long Drill six (6) .375" mounting holes in uprights to align with T-nuts in sign panel. Countersink (5") back of hole to accept socket head cap screw (4" x .375").

Assemble sign panel and uprights. Imbed assembled sign panel and uprights in 4' hole. Local soil conditions and/or wind loading may require bolting additional 2" x 4" structs on inside face of uprights to reinforce installation shown.

Shown below the mounting diagram is a panel layout grid with spaces provided for project information. Photocopy this page and use as a worksheet when preparing sign Legend orders.



Construction Project Sign Legend Group 1

1 _____

2 _____

Legend Group 2 Division/District Names

1 _____

2 _____

Legend Group 3 Project Title

1 _____

2 _____

3 _____

Legend Group 4 Facility Name

1 _____

2 _____

Legend Group 5a: Contractor/A&E

1 _____

2 _____

3 _____

4 _____

5 _____

Legend Group 5b: Contractor/A&E

1 _____

2 _____

3 _____

4 _____

5 _____

Safety Performance Sign Legend Group 1: Project Title

1 _____

2 _____

Legend Group 2: Contractor/A&E

1 _____

2 _____

Each contractor's safety record is to be posted on Corps managed or supervised construction projects and mounted with the construction project identification sign.

The graphic format, color, size and type-faces used on the sign are to be reproduced exactly as specified below. The title with First Aid logo in the top section of the sign and the performance record captions are

standard for all signs of the type. Legend Groups 2 and 3 below identify the project and the contractor and are to be placed on the sign as shown.

Safety record numbers are mounted on individual metal plates and are screw-mounted to the background to allow for daily revisions to posted safety performance record.

Legend Group 1: Standard two-line title
"Safety is a Job requirement" with (8 od.)
Safety Green First Aid logo.
Color: to match PMS 347
Typeface: 3" Helvetica Bold
Color: Black

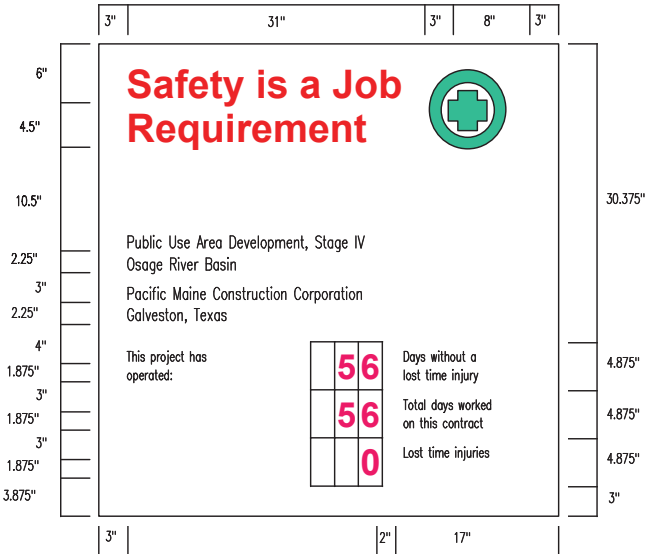
Legend Group 2: One to two-line project
title legend describes the work being done
under this contract and name of host project.
Color: Black
Typeface: 1.5" Helvetica Regular
Maximum line length: 42"

Legend Group 3: One to two-line identification:
name of prime contractor and city, state
address.
Color: Black
Typeface: 1.5" Helvetica Regular
Maximum line length: 42"

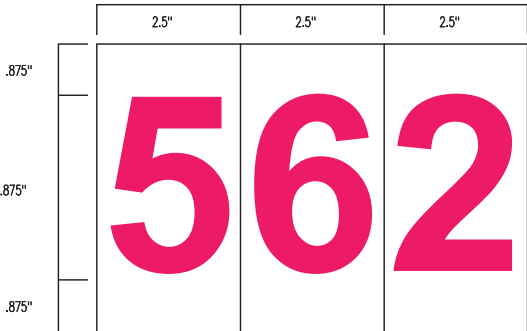
Legend Group 4: Standard safety record
captions as shown.
Color: Black
Typeface: 12.5" Helvetica Regular

Replaceable numbers are to be mounted on
white .060 aluminum plates and screw-
mounted to background.
Color: Black
Typeface: 3" Helvetica Regular
Plate size: 2.5" x .5"

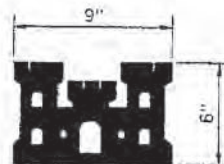
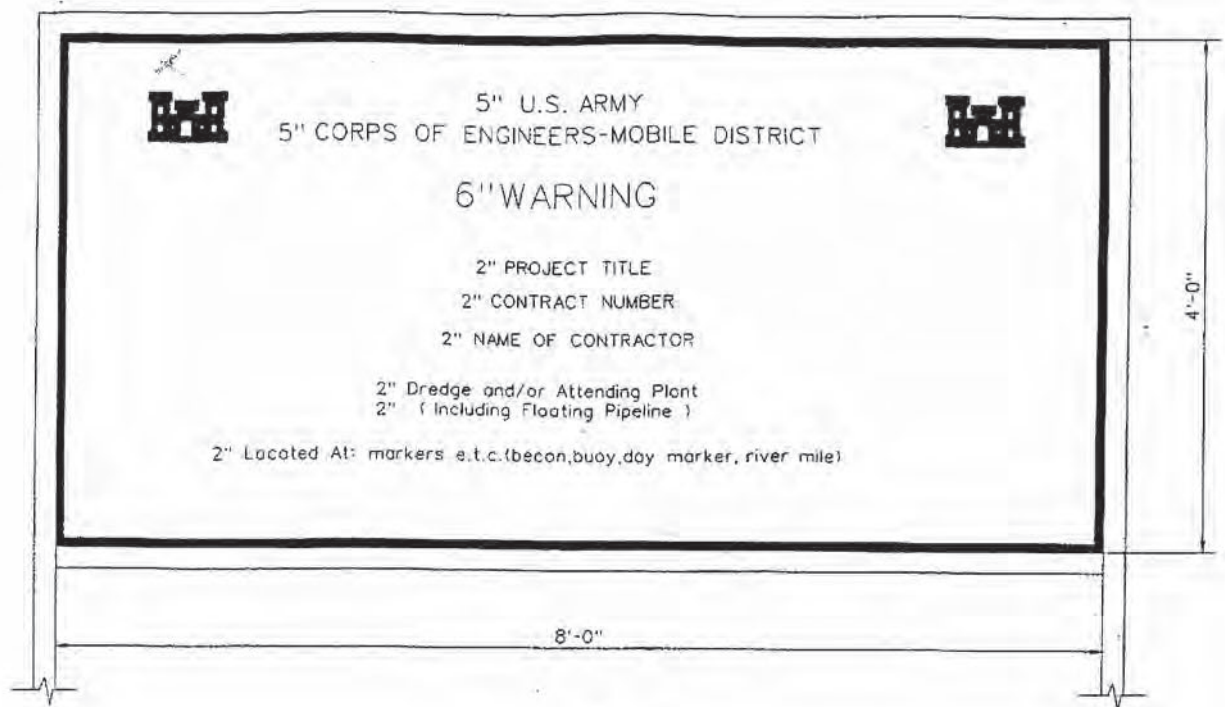
All typography is flush left and rag right.
Upper and lower case with initial capitals
only as shown. Letter- and word-spacing
to follow Corps standards.



Sign Type	Legend Size	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
CID-02	various	4"x4"	4"x4"	HDO-3	48"	WH/BK-GR

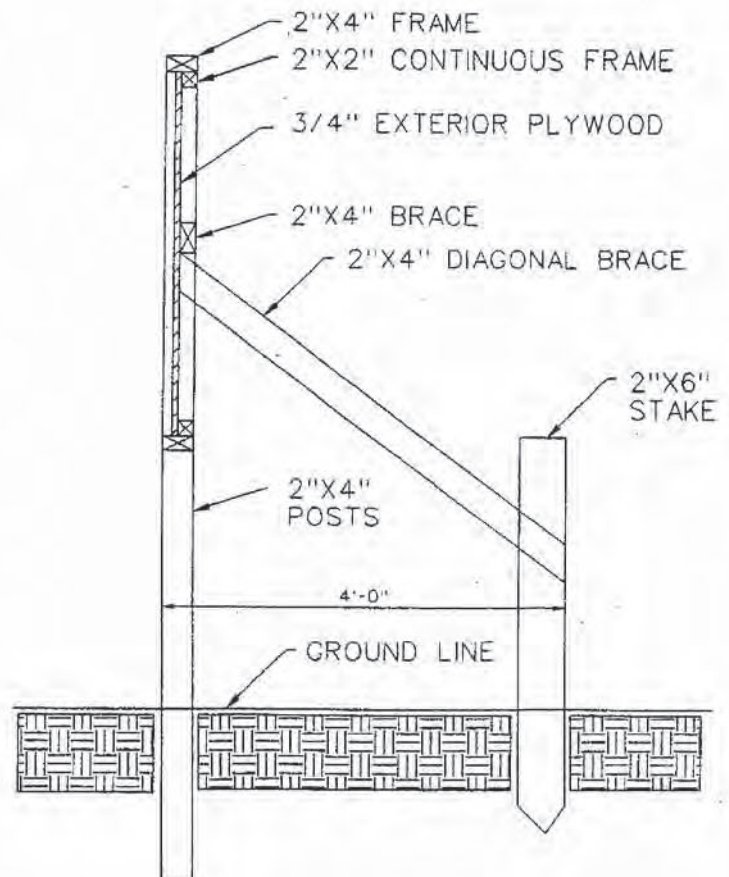
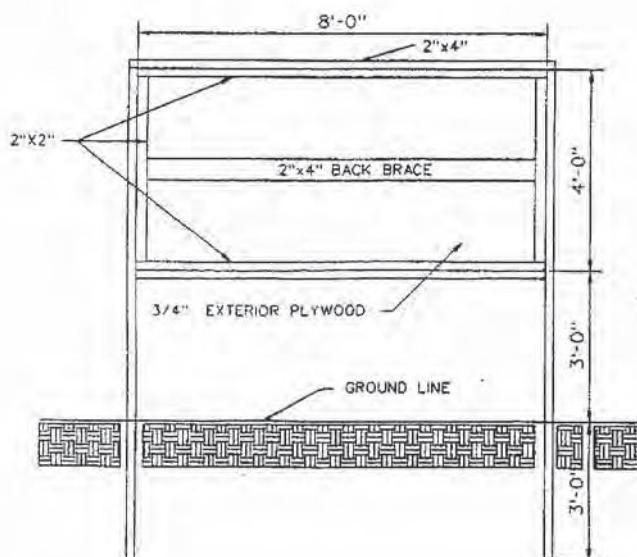


SAFETY PERFORMANCE SIGN



NOTES.

1. DRAWING N.T.S.
2. ALL LUMBER TO BE PRESSURE TREATED
3. ALL LETTERING WILL BE DISPLAYED IN RED
4. CASTLE TO BE PAINTED RED W/WHITE OPENINGS
5. BORDER TO BE PAINTED REFLECTIVE RED
6. ALL OTHER LUMBER TO BE PAINTED WHITE
7. POST/STAKE HOLES TO BE BACKFILLED & TAMPED
8. SIGNS TO BE REMOVED UPON COMPLETION OF PROJECT
9. RESTORE SITE TO ORIGINAL CONDITION
10. LETTER SIZE AS SHOWN



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1. BOARD OF CONTRACT APPEALS

The agency board of contract appeals having jurisdiction over all appeals from final decisions of the Contracting Officer under the Contract Disputes Act of 1978 is the Armed Services Board of Contract Appeals, Skyline Six, 5109 Leesburg Pike, 7TH Floor, Falls Church, Virginia 22041.

End of Paragraph

2. REQUESTS FOR INFORMATION

Any questions about this solicitation, including technical questions about plans and specifications, shall be submitted via the Bidder Inquiry Portal in ProjNet at <https://www.projnet.org>. To submit and review inquiry items, prospective vendors will need to use the Bidder Inquiry Key presented below and follow the instructions listed below the key for access. A prospective vendor who submits a comment /question will receive an acknowledgement of their comment/question via email, followed by an answer to the comment/question after it has been processed by our technical team. All timely questions and approved answers will be made available through ProjNet.

Questions shall be submitted no later than **March 04, 2019** at 2:00 p.m. Central Time to allow time for a response, and amendment to the solicitation if necessary. On this date and time the portal will be closed.

For technical questions, no other means of communication, e-mail, fax, or telephone will be accepted. Oral exchanges between Offerors or Bidders and the government prior to award of the contract will not be binding. In addition to information available to Offerors or Bidders on the Bidder Inquiry Portal, any information concerning this solicitation will be furnished to all Offerors or Bidders as an amendment to the solicitation if the information is necessary to the submittal of offers or bids.

The Solicitation Number is: W9127819B0001
The Bidder Inquiry Key is: QCB9Z2-YUT5N7

Specific Instructions for ProjNet Bid Inquiry Access:

1. From the ProjNet home page linked above, click on **Quick Add** on the upper right side of the screen.
2. Identify the Agency. This should be marked as **USACE**.
3. Key. Enter the **Bidder Inquiry Key** listed above.
4. Email. Enter the email address you would like to use for communication.
5. Click Continue. A page will then open saying that a user account was not found and will ask you to create one using the provided form.
6. Enter your First Name, Last Name, Company, City, State, Phone, Email, Secret Question, Secret Answer, and Time Zone. Make sure to remember your Secret Question and Answer as they will be used from this point on to access the ProjNet system.
7. Click Add User. Once this is completed you are now registered within ProjNet and are currently logged into the system.

Specific Instructions for Future ProjNet Bid Inquiry Access:

1. For future access to ProjNet, you will not be emailed any type of password. You will utilize your Secret Question and Secret Answer to log in.
2. From the ProjNet home page linked above, click on **Quick Add** on the upper right side of the screen.
3. Identify the Agency. This should be marked as **USACE**.

4. Key. Enter the **Bidder Inquiry Key** listed above.
5. Email. Enter the email address you used to register previously in ProjNet.
6. Click Continue. A page will then open asking you to enter the answer to your Secret Question.
7. Enter your Secret Answer and click Login. Once this is completed you are now logged into the system.

Note: Questions/comments should be entered in the system one at a time. Lists of questions uploaded into ProjNet, regardless of the format, will not be answered.

Offerors are requested to review the solicitation and amendments in their entirety, as well as to review the Bidder Inquiry Portal for previous questions and responses, prior to submission of a new inquiry on the Portal.

CAUTION: ANY INQUIRY SUBMITTED AND ANSWERED WITHIN THIS SYSTEM, WILL BE ACCESSIBLE TO VIEW BY ALL INTERESTED OFFERORS OR BIDDERS ON THIS SOLICITATION.

The call center for the ProjNet operates weekdays from 8 AM to 5 PM U.S. Central Time Zone. The telephone number is 1-800-428-HELP.

End of Paragraph

3. DESCRIPTION OF WORK

In general, the work shall consist of rental of a Hopper Dredge and Attendant Plant for dredging in Alabama, Mississippi, and Florida.

NOTE: The above general outline of features of the work does not in any way limit the responsibility of the Contractor to perform all work and furnish all plant, labor, equipment and materials required by the specifications and the drawings referred to therein. The cost of this work is estimated to be between \$5,000,000 and \$10,000,000.

End of Paragraph

4. PREAWARD INFORMATION

Each bidder shall furnish either with his bid or within 3 days after a request is made for submittal of preaward data a statement of whether he is now or ever has been engaged in any work similar to that covered by the specifications herein, the dollar value thereof, the year in which such work was performed, and the manner of its execution, and giving such other information as will tend to show the bidder's ability to prosecute the required work. The "such other information" referred to above shall include but is not limited to the following:

- a. The name and address of the office or firm under which such similar work was performed. Include names and telephone numbers of personnel within each organization who are familiar with the prospective contractor's performance.
- b. A list of key personnel available for the instant project and their qualifications.

c. A copy of bidder's latest financial statement, including the names of banks or other financial institutions with which the bidder conducts business. If the financial statement is more than 60 days old, a certificate should be attached stating that the financial condition is substantially the same, or if not the same, the changes that have taken place. Such statements will be treated as confidential.

d. A list of present commitments, including the dollar value thereof, and name of office under which the work is being performed. Include names and telephone numbers of personnel within each organization who are familiar with the prospective contractor's performance.

e. If the bid exceeds \$1,000,000 and the prospective contractor is a large business concern, he must submit a subcontracting plan in compliance with the Contract Clause entitled SMALL BUSINESS SUBCONTRACTING PLAN.

End of Paragraph

5. CONTRACT PRICES - BIDDING SCHEDULE

Payment for the various items listed in the Bidding Schedule shall constitute full compensation for furnishing all plant, labor, equipment, appliances, materials and bonds (performance and payment), and for performing all operations required to complete the work in conformity with the drawings and specifications. All costs for work not specifically mentioned in the Bidding Schedule shall be included in the contract prices for the items listed.

End of Paragraph

6. REQUIRED INSURANCE

The Contractor shall procure and maintain during the entire period of his performance under this contract, the following minimum insurance in accordance with the Contract Clause entitled "Insurance-Work on a Government Installation." Workmen's Compensation and Employers' liability Insurance:

Workmen's Compensation and Occupational Disease Coverage in accordance with statutory limits.
Employers' Liability Coverage with a minimum limit of \$100,000.

Comprehensive Automobile Liability Insurance:

Bodily injury coverage with minimum limits of \$200,000 per person and \$500,000 per occurrence.
Property Damage Coverage with a minimum limit of \$20,000 per occurrence.

Comprehensive General Liability Insurance:

Bodily injury coverage with minimum limits of \$500,000 per occurrence.

End of Paragraph

7. EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE

(a) This clause does not apply to terminations. See clause 5152.249-9000, Basis for Settlement of Proposals in Section 00 73 00, and FAR Part 49.

(b) Allowable cost for construction and marine plant and equipment in sound workable condition owned or controlled and furnished by a contractor or subcontractor at any tier shall be based on actual cost data for each piece of equipment or groups of similar serial and series for which the Government can determine both ownership and operating costs from the contractor's accounting records. When both ownership and operating costs cannot be determined for any piece of equipment or groups of similar serial or series equipment from the contractor's accounting records, costs for that equipment shall be based upon the applicable provisions of EP 1110-1-8, "Construction Equipment Ownership and Operating Expense Schedule," Region III. Working conditions shall be considered to be average for determining equipment rates using the schedule unless specified otherwise by the contracting officer. For equipment not included in the schedule, rates for comparable pieces of equipment may be used or a rate may be developed using the formula provided in the schedule. For forward pricing, the schedule in effect at the time of negotiations shall apply. For retrospective pricing, the schedule in effect at the time the work was performed shall apply.

(c) Equipment rental costs are allowable, subject to the provisions of FAR 31.105(d)(ii) and FAR 31.205-36. Rates for equipment rented from an organization under common control, lease-purchase arrangements, and sale-leaseback arrangements will be determined using the schedule, except that actual rates will be used for equipment leased from an organization under common control that has an established practice of leasing the same or similar equipment to unaffiliated lessees.

(d) When actual equipment costs are proposed and the total amount of the pricing action exceeds the small purchase threshold, the contracting officer shall request the contractor to submit either certified cost or pricing data, or partial/limited data, as appropriate. The data shall be submitted on Standard Form 1411, "Contract Pricing Proposal Cover Sheet."

End of Paragraph

8. U.S. ARMY CORPS OF ENGINEERS SAFETY AND HEALTH REQUIREMENTS MANUAL, EM 385- 1-1

This paragraph applies to contracts and purchase orders that require the contractor to comply with EM 385-1-1 (e.g., contracts that include the Accident Prevention clause at FAR 52.236-13 and/or other safety provisions). EM 385-1-1 and its changes are available at <http://www.usace.army.mil/Safety-and-Occupational-Health/EM-385-1-1-2008-Being-Revised/>. The Contractor shall be responsible for complying with the current edition and all changes posted on the web through the date that is 10 calendar days prior to the date offers are due. If the solicitation is amended to extend the time set for receipt of offers, the 10 calendar days rule stated above shall be applied against the amended date. (For example, if offers are due on 10 April, all changes posted on or before 31 March shall apply to the contract. If the time for receipt of offers is extended from 10 April to 20 April, all changes posted on or before 10 April shall apply to the contract.)

End of Paragraph

9. AFFILIATED BIDDERS

(a) Business concerns are affiliates of each other when, either directly or indirectly, (1) one concern controls or has the power to control the other, or (2) a third party controls or has the power to control both.

(b) Each bidder shall submit with its bid an affidavit stating that it has no affiliates, or containing the following information.

(1) The names and addresses of all affiliates of the bidder.

(2) The names and addresses of all persons and concerns exercising control or ownership of the bidder and any or all of its affiliates, and whether they exercise such control or ownership as common officers, directors, stockholders, holding controlling interest, or otherwise.

Please check when applicable:

_____ The offeror certifies that it has no affiliates.

_____ The offeror certifies that it is affiliated with the concerns designated on an attached affidavit.

End of Paragraph

10. MANPOWER REPORTING (DEC 2012)

The Office of the Assistant Secretary of the Army (Manpower & Reserve Affairs) operates and maintains a secure Army data collection site where the contractor will report ALL contractor manpower (including subcontractor manpower) required for performance of this contract. The contractor is required to completely fill in all the information in the format using the following web address “<https://cmra.army.mil>. The required information includes:

- (1) Contracting Office, Contracting Officer, Contracting Officer’s Technical Representative;
- (2) Contract number, including task and delivery order number;
- (3) Beginning and ending dates covered by reporting period;
- (4) Contractor name, address, phone number, e-mail address, identity of contractor employee entering data;
- (5) Estimated direct labor hours (including subcontractors);
- (6) Estimated direct labor dollars paid this reporting period (including subcontractors);
- (7) Total payments (including subcontractors);
- (8) Predominant Federal Service Code (FSC) reflecting services provided by contractor (and separate predominant FSC for each subcontractor if different);

(9) Estimated data collection cost;

(10) Organizational title associated with the Unit Identification Code (UIC) for the Army Requiring Activity (the Army Requiring Activity is responsible for providing the contractor with its UIC for the purposes of reporting this information);

Note: UIC for Mobile District Civil Works funded projects is W2SR04 and Military funded projects is W07404. If you are unsure of the funding type, contact your COR or Contract Specialist.

(11) Locations where contractor and subcontractors perform the work (specified by zip code in the United States and nearest city, country, when in an overseas location, using standardized nomenclature provided on website);

(12) Presence of deployment or contingency contract language; and

(13) Number of contractor and subcontractor employees deployed in theater this reporting period (by country).

As part of its submission, the contractor will also provide the estimated total cost (if any) incurred to comply with this reporting requirement. Reporting period will be the period of performance not to exceed 12 months ending September 30 of each government fiscal year and must be reported by 31 October of each calendar year. Contractors may use a direct XML data transfer to the database server or fill in the fields on the website. The XML direct transfer is a format for transferring files from a contractor's systems to the secure web site without the need for separate data entries for each required data element at the web site. The specific formats for the XML direct transfer may be downloaded from the web site.

(End of clause)

11. MANUALS AND PUBLICATIONS

Engineering manuals and Concrete Research Division Publications may be obtained from the addresses given below.

Engineering Manuals:

U. S. Army, Corps of Engineers
Publications Depot
2803 -52nd Avenue
Hyattsville, MD 20781-1102

Concrete Research Division Publications:

U.S. Army Engineer Waterways Experiment Station
ATTN: Publications Distribution Unit
P.O. Box 631
Vicksburg, MS 39180

End of Paragraph

12. BULLETIN BOARD

Immediately upon beginning of work under this contract, the Contractor shall provide at the job site a weatherproof glass-covered bulletin board for displaying the fair employment poster, wage rates, and safety bulletins and posters. Emergency telephone numbers and reporting instructions for ambulance, physician, hospital, fire and police shall be posted. The bulletin board shall be located in a conspicuous place easily accessible to all and legible copies of the aforementioned data shall be displayed until work under the contract is completed. No direct payment will be made for the bulletin board.

End of Paragraph

13. LABOR REPORTS

The Contractor shall promptly furnish and shall cause any subcontractors to furnish in like manner within 7 days after the regular payment date of each weekly payroll to the Contracting Officer, a copy of such payroll together with a statement of compliance with respect to the wages paid each of its employees (which shall not be deemed to apply to persons in classifications higher than laborers and mechanics and those who are the immediate supervisors of such employees) engaged on the work. If the Contractor or any of his subcontractors fail to furnish copies of such payrolls, the Contracting Officer may disapprove all or part of any progress payment estimate for the period covered by such payrolls until they are received by him. The Contractor shall also prepare and furnish such labor reports as may be required by the Department of Labor.

End of Paragraph

14. PROTECTION OF MATERIAL AND WORK

The Contractor shall at all times protect and preserve all materials, supplies and equipment of every description (including property which may be Government-furnished or owned) and all work performed. All reasonable requests of the Contracting Officer to enclose or specially protect such property shall be complied with. If, as determined by the Contracting Officer, material, equipment, supplies, and work performed are not adequately protected by the Contractor such property may be protected by the Government and the cost thereof may be charged to the Contractor or deducted from any payments due him.

End of Paragraph

15. ENGLISH-SPEAKING REPRESENTATIVE

At all times when any performance of the work at any site is being conducted by any employee of the Contractor or his subcontractors, the Contractor shall have a representative present at each site who has the capability of receiving instructions in the English language, fluently speaking the English language and explaining the work operations to persons performing the work in the language that those performing the work are capable of understanding. The Contracting Officer shall have the right to determine whether the proposed representative has sufficient technical and bilingual capabilities, and the Contractor shall immediately replace any individual not acceptable to the Contracting Officer.

16. PROHIBITION AGAINST CONTRACTING WITH INDIVIDUALS OR ENTITIES DESIGNATED AS SIGNIFICANT NARCOTICS TRAFFICKERS

Pursuant to Executive Order 12978 entitled "Blocking Assets and Prohibiting Transactions with Significant Narcotic Traffickers" dated October 21, 1995, the offeror certifies that it has not and will not be involved in business transactions with individuals or business entities designated as significant narcotics traffickers under this Executive Order. For a current listing of specially designated nationals and blocked persons, contact the Office of Foreign Assets Control, Department of the Treasury, Washington, DC 22201; telephone 202/622-2420.

End of Paragraph

17. CONTRACTOR PAYMENT REQUEST

A copy of CESAM Form 1151 entitled PROMPT PAYMENT CERTIFICATION AND SUPPORTING DATA FOR CONTRACTOR PROGRESS PAYMENT INVOICE is included hereinafter, with instructions, following the Wage Rates. This form will be used in conjunction with the CONTRACT CLAUSE entitled PAYMENTS UNDER FIXEDPRICE CONSTRUCTION CONTRACTS. The contracting Officer will provide copies of the form to the Contractor upon request. The Contractor shall complete the form, sign the certification and submit it with each progress payment invoice.

End of Paragraph

18. PARTNERING

In order to most effectively accomplish this contract, the Government proposes to form a cohesive partnership with the Contractor and its subcontractors. This partnership would strive to draw on the strengths of each organization in an effort to achieve a quality project done right the first time, within budget and on schedule. This partnership would be bilateral in make-up and participation will be totally voluntary. Any cost associated with implementing this partnership will be agreed to by both parties and will be shared equally with no change in contract price.

End of Paragraph

19. POTABLE WATER

Testing of all potable water storage facilities and dispensing systems with a storage capacity of ten or more gallons, will be conducted by an independent testing laboratory approved by the Contracting officer as follows:

- (1) Prior to the commencement of work.
- (2) Minimum of monthly, after start of work for the duration of the contract.
- (3) After any repairs or modifications are made to the potable water storage or dispensing systems.
- (4) After any intake of potable water into the storage system.

All samples shall meet state and local water quality standards for potable water. A copy of all test results will be forwarded to the Contracting Officer within seven working days for his review.

In the event a tested sample fails to meet state and local water quality standards, all dispensing outlets connected to the failing water storage shall be labeled as non-potable and other means of potable water shall be obtained until water quality can be provided to meet the required standards.

To insure potable water maintains water quality standards all portable potable water dispensing units shall be checked daily for cleanliness. All hoses used in the transfer of potable water shall be conspicuously marked and kept in such a manner as to keep them from being contaminated. These hoses shall be used for potable water transfer only.

End of Paragraph

20. PRESERVATION OF HISTORICAL, ARCHEOLOGICAL AND CULTURAL RESOURCES

(a) If known historical, archeological and cultural resources exist within the Contractor's work area, they have been designated on the contract drawings. The Contractor shall install protection for these resources as shown on the drawings and shall be responsible for their preservation during the contract.

(b) If, during construction activities, the Contractor observes items that might have historical or archeological value, such observations shall be reported immediately to the Contracting Officer so that the appropriate authorities may be notified and a determination can be made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall cease all activities that may result in the destruction of these resources and shall prevent his employees from trespassing on, removing, or otherwise damaging such resources.

21. WORK IN QUARANTINED AREA

The work called for by this contract involves activities in counties quarantined by the Department of Agriculture to prevent the spread of certain plant pests which may be present in the soil. The Contractor agrees that all construction equipment and tools to be moved from such counties shall be thoroughly cleaned of all soil residues at the construction site with water under pressure and that hand tools shall be thoroughly cleaned by brushing or other means to remove all soil. In addition, if this contract involves the identification, shipping, storage, testing, or disposal of soils from such a quarantined area, the Contractor agrees to comply with the provisions of ER 1110-1-5 and attachments, a copy of which will be made available by the Contracting Officer upon request. The Contractor agrees to assure compliance with this obligation by all subcontractors.

End of Paragraph

22. KEY PERSONNEL, SUBCONTRACTORS AND OUTSIDE ASSOCIATES OR CONSULTANTS

Any key in-house personnel, subcontractors and outside associates or consultants required by the Contractor in connection with the services covered by the contract will be limited to individuals or firms that were specifically identified and agreed to during negotiations. The Contractor shall obtain the Contracting Officer's written consent before making any substitution for these designated key personnel, subcontractors, associates, or consultants.

End of Paragraph

23. ACCOMMODATIONS AND MEALS FOR INSPECTORS

a. The Contractor shall furnish regularly to inspectors on board the dredge or other craft upon which they are employed, a suitable separate room for office purposes. The room shall be fully equipped and maintained to the satisfaction of the Contracting Officer; it shall be properly heated, ventilated, and lighted, and shall have a desk which can be locked, a chair for each inspector, and washing conveniences. The entire cost to the Contractor for furnishing, equipping, and maintaining the foregoing accommodations shall be included in the contract price. If the Contractor fails to meet these requirements, the facilities referred to above will be secured by the Contracting Officer, and the cost thereof will be deducted from payments to the Contractor.

b. If the Contractor maintains on this work an establishment for the subsistence of his own employees, he shall, when required, furnish the inspectors employed on the work, and to all Government agents who may visit the work on official business, meals of a quality satisfactory to the Contracting Officer. The Contractor will be responsible for collecting from all inspectors and other Government agents the following amount per person for each meal: Breakfast - \$2.25, Lunch - \$3.25 and Dinner - \$3.50. End of Paragraph

End of Paragraph

24. SEAGOING BARGE ACT

The Seagoing Barge Act (46 U.S. C. 395 et seq.) applies to this project. In the event the low bidder contemplates using plant that requires U.S. Coast Guard certification to comply with this Act, the low bidder shall within 15 calendar days after bid opening submit a copy of said certificate to the Contracting Officer. Failure to produce the certificate within the required time shall subject the bidder to a determination of nonresponsibility.

End of Paragraph

25. DELIVERY, PROSECUTION AND TERMINATION

- (a) The dredge and attendant plant shall be delivered by and at the expense of the Contractor to the Mobile District's navigation projects located in Mobile County, Alabama and Baldwin County, Alabama.
- (b) The Contractor shall prosecute the work assigned him with faithfulness and energy, and at all times endeavor to meet the schedule of dredging operations as determined by the Contracting Officer.
- (c) Upon termination of the lease, the plant will be released to the Contractor.

End of Paragraph

26. SUNDAYS, HOLIDAYS AND NIGHTS

Due to the nature of the work, a twenty-four (24) hour operation will be performed on a seven (7) day week schedule. Work shall be performed on days declared by Congress as holidays for per diem employees that fall within the work described above. Deviation from the work week contracted for will be subject to the approval of the Contracting Officer. -

Operation Day. The dredge, together with the necessary attendant plant and with adequate crew, shall be operated 24 hours per day on an optional shift basis.

End of Paragraph

27. RETAINAGE--SMALL BUSINESS SUBCONTRACTING REPORTING

Reference is made to contract clause(s) 252.219-7003, Small Business Subcontracting Plan (DoD Contracts) and 52.219-16, Liquidated Damages--Small Business Subcontracting Plan. In order to ensure compliance with these clauses, retainage will be withheld from progress payments due the contractor in an amount sufficient to protect the Government's ability to assess Liquidated Damages for failure to submit timely SF 294 and SF 295 reports.

The formula for retainage is as follows:

"Total dollar amount proposed for subcontracting to small business multiplied by percentage of actual progress on the contract, up to a maximum of 10% of the given progress payment, shall be withheld from the next progress payment due after a contractor fails to submit a required report. If one or more reports have been submitted before such failure, formula for determining the amount of retainage will be adjusted by deducting any amounts reported as subcontracted to small business from the total dollar amount proposed to be subcontracted and the difference multiplied by the percent of actual progress, up to a maximum of 10% of the given progress payment."

End of Paragraph

PROMPT PAYMENT CERTIFICATION AND SUPPORTING DATA FOR CONTRACTOR PROGRESS PAYMENT INVOICE

Contractor Name and Address	Contract No.	Est. No.	Date	Discount Terms
Description and Location of Work	Designated Contractor Official and Address for Payment		Defective Invoice Notification (Name, Title, Telephone)	
Subcontractor Name	Total Amount Subcontracted	Subcontractor Amount Included This Payment Est	Previous Subcontractor Payments	Subcontractor Earnings Deducted by Contractor (Total to Date)
<div style="text-align: right;">\$ _____</div>				

I hereby certify, to the best of my knowledge and belief, that:

- (1) The amounts requested are only for performance in accordance with the specifications, terms and conditions of the contract;
- (2) Payments to subcontractors and suppliers have been made from previous payments received under the contract, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements and the requirements of Chapter 39 of Title 31, United States Code; and
- (3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract.

(NAME)
(TITLE)

(DATE)

SECTION 01330

SUBMITTAL PROCEDURES

03/01

PART 1 GENERAL

1.3 SUBMITTAL IDENTIFICATION (SD)

All submittals shall be provided in electronic format unless otherwise directed by the COR or stated in the specifications.

SD-01 Preconstruction Submittals

The Contractor shall bring to this conference the following items in either complete or draft form – the Task Order will need to be awarded before some of these plans can be submitted:

- (1) Accident Prevention Plan
- (2) Activity Hazard Analysis
- (3) Job Hazard Analysis for each employee classification
- (4) Material Safety Data Sheets
- (5) List of First Aid and CPR trained personnel
- (6) Letter appointing representatives
- (7) List of Sub-Contractors
- (8) Quality Control Plan
- (9) Dredge Plant Instrumentation Plan
- (10) Environmental Protection Plan (including Pollution Control Plan)
- (11) Deposition Plan
- (12) Survey Plan (submit complete plan at preconstruction conference)

SD-02 Shop Drawings

Drawings, diagrams and schedules specifically prepared to illustrate some portion of the work.

Diagrams and instructions from a manufacturer or fabricator for use in producing the product and as aids to the contractor for integrating the product or system into the project.

Drawings prepared by or for the contractor to show how multiple systems and interdisciplinary work will be coordinated.

SD-03 Product Data

Catalog cuts, illustrations, schedules, diagrams, performance charts, instructions and brochures illustrating size, physical appearance and other characteristics of materials or equipment for some portion of the work.

Samples of warranty language when the contract requires extended product warranties.

SD-04 Samples

Physical examples of materials, equipment or workmanship that illustrate functional and aesthetic characteristics of a material or product and establish standards by which the work can be judged.

Color samples from the manufacturer's standard line (or custom color samples if specified) to be used in selecting or approving colors for the project.

Field samples and mock-ups constructed on the project site establish standards by which the ensuring work can be judged. Includes assemblies or portions of assemblies which are to be incorporated into the project and those which will be removed at conclusion of the work.

SD-05 Design Data

Calculations, mix designs, analyses or other data pertaining to a part of work.

SD-06 Test Reports

Report signed by authorized official of testing laboratory that a material, product or system identical to the material, product or system to be provided has been tested in accord with specified requirements. (Testing must have been within three years of date of contract award for the project.)

Report which includes findings of a test required to be performed by the contractor on an actual portion of the work or prototype prepared for the project before shipment to job site.

Report which includes finding of a test made at the job site or on sample taken from the job site, on portion of work during or after installation.

Investigation reports

Daily checklists

Final acceptance test and operational test procedure

SD-07 Certificates

Statements signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements. Must be dated after award of project contract and clearly name the project.

Document required of Contractor, or of a supplier, installer or subcontractor through Contractor, the purpose of which is to further quality of orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel qualifications.

Confined space entry permits.

SD-08 Manufacturer's Instructions

Preprinted material describing installation of a product, system or material, including special notices and Material Safety Data sheets concerning impedances, hazards and safety precautions.

SD-09 Manufacturer's Field Reports

Documentation of the testing and verification actions taken by manufacturer's representative to confirm compliance with manufacturer's standards or instructions.

Factory test reports.

SD-10 Operation and Maintenance Data

Data intended to be incorporated in operations and maintenance manuals.

SD-11 Closeout Submittals

Documentation to record compliance with technical or administrative requirements or to establish an administrative mechanism.

As-built drawings.

Special warranties.

Posted operating instructions.

Training plan.

1.2 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.2.1 Government Approved

Governmental approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items be designated by the Contracting Officer. Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings".

1.2.2 Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.3 APPROVED SUBMITTALS

The Contracting Officer's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the CQC requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.4 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause "Changes" shall be given promptly to the Contracting Officer.

1.5 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION

3.1 GENERAL

The Contractor shall make submittals as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) representative and each item shall be stamped, signed, and dated by the CQC representative indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications, warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

3.2 SUBMITTAL REGISTER

At the beginning of this section is a listing of items identified in the specifications as requiring submittals. The list is not all inclusive and additional submittals may be required by other parts of the contract. The contractor is required to complete the attached submittal form and submit to the Contracting Officer for approval within 15 calendar days after Notice to Proceed. The approved submittal register will serve as a scheduling document for submittals and will be used to control submittal actions throughout the contract period. The submit dates and need dates used in the submittal register shall be coordinated with dates in the contractor prepared progress schedule. Updates to the submittal register showing the contractor action codes and actual dates with government action codes and actual dates shall be submitted monthly or until all submittals have been satisfactorily completed. When the progress

schedule is revised, the submittal register shall also be revised and both submitted for approval.

3.3 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a

minimum of 30 calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval. No delay damages or time extensions will be allowed for time lost in late submittals. An additional 15 calendar days shall be allowed and shown on the register for review and approval of submittals for food service equipment and refrigeration and HVAC control systems and 30 additional days for review of systems furniture, interior design packages and color boards.

3.4 TRANSMITTAL FORM (ENG FORM 4025)

The sample transmittal form (ENG FORM 4025) attached to this section shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. These form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submittal for each item.

3.5 SUBMITTAL PROCEDURES

Submittals shall be made as follows:

3.5.1 Procedures

Detailed submittal procedures will be further discussed with the contractor at the pre-construction conference.

3.5.2 Deviations

For submittals which include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

3.6 CONTROL OF SUBMITTALS

The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

3.7 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and

dated. 4 copies of the submittal will be retained by the Contracting Officer and 2 copies of the submittal will be returned to the Contractor.

3.8 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Approvals of the Contracting Officer is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government in those instances where the technical specification so prescribe.

3.9 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

CONTRACTOR
(Firm Name)
_____ Approved
_____ Approved with corrections as noted on submittal data and/or attached sheets(s).
SIGNATURE: _____
TITLE: _____
DATE: _____

-- End of Section --

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE <i>(Read instruction on the reverse side prior to initiating this form)</i>		DATE	TRANSMITTAL NO.	
SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS <i>(This section will be initiated by the contractor)</i>				
TO:		FROM:		CONTRACT NO.
				CHECK ONE: <input type="checkbox"/> THIS IS A NEW TRANSMITTAL <input type="checkbox"/> THIS IS A RESUBMITTAL OF TRANSMITTAL _____
SPECIFICATION SEC. NO. <i>(Cover only one section with each transmittal)</i>		PROJECT TITLE AND LOCATION		
ITEM NO.	DESCRIPTION OF ITEM SUBMITTED <i>(Type size, model number/etc.)</i>	MFG OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. <i>(See instruction no. 8)</i>	NO. OF COPIES	CONTRACT REFERENCE DOCUMENT SPEC. PARA. NO. DRAWING SHEET NO.
a.	b.	c.	d.	e. f. g. h. i.
REMARKS		I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as other wise stated.		
SECTION II - APPROVAL ACTION				
ENCLOSURES RETURNED (List by Item No.)		NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY		DATE
ENG FORM 4025, OCT 99		EDITION OF AUG 89 IS OBSOLETE <i>(ER 415-1-10)</i>		SHEET ____ OF ____ <i>(Proponent: CEMP-CE)</i>

INSTRUCTIONS

1. Section 1 will be initiated by the Contractor in the required number of copies.
2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No.". This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmits mark the appropriate box; on resubmittals, insert transmittal number of last submission as well as the new submittal number.
3. The "Item No." will be the same "Item No." as indicated on ENG FORM 4288 for each entry on this form.
4. Submittals requiring expeditious handling will be submitted on a separate form.
5. Separate transmittal form will be used for submittals under separate sections of the specifications.
6. A check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications--also, a written statement to that effect shall be included in the space provided for "Remarks".
7. Form is self-transmittal, letter of transmittal is not required.
8. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in column c, Section I.
9. U.S. Army Corps of Engineers approving authority will assign action codes as indicated below in space provided in Section I, column i to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated below in Section I, column g, to each item submitted.

THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

A	--	Approved as submitted.	E	--	Disapproved (See attached).
B	--	Approved, except as noted on drawings.	F	--	Receipt acknowledge.
C	--	Approved, except as noted on drawings. Refer to attached sheet resubmission required	FX	--	Receipt acknowledged, does not comply as noted with contract requirements.
D	--	Will be returned by separate correspondence.	G	--	Other (Specify)

10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

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GOVERNMENTAL SAFETY REQUIREMENTS

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN SOCIETY OF SAFETY ENGINEERS (ASSE/SAFE)

ASSE/SAFE A10.32	(2012) Fall Protection
ASSE/SAFE A10.34	(2001; R 2012) Protection of the Public on or Adjacent to Construction Sites
ASSE/SAFE Z359.1	(2007) Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components

ASME INTERNATIONAL (ASME)

ASME B30.22	(2010) Articulating Boom Cranes
ASME B30.3	(2012) Construction Tower Cranes
ASME B30.5	(2014) Mobile and Locomotive Cranes
ASME B30.8	(2010) Floating Cranes and Floating Derricks

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10	(2013) Standard for Portable Fire Extinguishers
NFPA 51B	(2014) Fire Prevention During Welding, Cutting, and Other Hot Work
NFPA 70	(2007; AMD 1 2008) National Electrical Code - 2008 Edition
NFPA 70E	(2015; ERTA 1 2015) Standard for Electrical Safety in the Workplace

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2014) Safety and Health Requirements Manual
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U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

10 CFR 20	Standards for Protection Against Radiation
29 CFR 1910	Occupational Safety and Health Standards
29 CFR 1910.146	Permit-required Confined Spaces

29 CFR 1926	Safety and Health Regulations for Construction
29 CFR 1926.1400	Cranes and Derricks in Construction
29 CFR 1926.16	Rules of Construction
29 CFR 1926.500	Fall Protection
CPL 2.100	(1995) Application of the Permit-Required Confined Spaces (PRCS) Standards, 29 CFR 1910.146

1.2 DEFINITIONS

- a. High Visibility Accident. Any mishap which may generate publicity and/or high visibility.
- b. Medical Treatment. Treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even through provided by a physician or registered personnel.
- c. Recordable Injuries or Illnesses. Any work-related injury or illness that results in:
- (1) Death, regardless of the time between the injury and death, or the length of the illness;
 - (2) Days away from work (any time lost after day of injury/illness onset);
 - (3) Restricted work;
 - (4) Transfer to another job;
 - (5) Medical treatment beyond first aid;
 - (6) Loss of consciousness; or
 - (7) A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it did not result in (1) through (6) above.
- d. "USACE" property and equipment specified in USACE EM 385-1-1 should be interpreted as Government property and equipment.
- e. Weight Handling Equipment (WHE) Accident. A WHE accident occurs when any one or more of the eight elements in the operating envelope fails to perform correctly during operation, including operation during maintenance or testing resulting in personnel injury or death; material or equipment damage; dropped load; derailment; two-blocking; overload; or collision, including unplanned contact between the load, crane or other objects. A dropped load, derailment, two-blocking, overload and collision are considered accidents even though no material damage or injury occurs. A component failure (e.g., motor burnout, gear tooth failure, bearing failure) is not considered an accident solely due to material or equipment damage unless the component failure results in damage to other components (e.g., dropped boom, dropped load, roll over, etc.) Any mishap meeting the criteria described above shall be documented in both the Contractor Significant Incident Report (CSIR) submitted within five days both as provided by the Contracting Officer.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are [for Contractor Quality Control approval.][for information only. When used, a

designation following the "G" designation identifies the office that will review the submittal for the Government.] Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

Government acceptance is required for submittals with a "G, A" designation.

SD-01 Preconstruction Submittals

Accident Prevention Plan (APP); G, A
Activity Hazard Analysis (AHA); G, A
Crane Critical Lift Plan; G, A
Proof of qualification for Crane Operators; G, A

SD-06 Test Reports

Notifications and Reports

Submit reports as their incidence occurs, in accordance with the requirements of the paragraph, "Notifications and Reports."

Reports

Accident Reports; G

Crane Reports; G

SD-07 Certificates

Confined Space Entry Permit

Hot work permit

License Certificates

1.4 REGULATORY REQUIREMENTS

In addition to the detailed requirements included in the provisions of this contract, comply with USACE EM 385-1-1, and the following federal, state, and local, laws, ordinances, criteria, rules and regulations. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements govern.

1.5 SITE QUALIFICATIONS, DUTIES AND MEETINGS

1.5.1 Personnel Qualifications

1.5.1.1 Site Safety and Health Officer (SSHO)

The SSHO must meet the requirements of EM 385-1-1 section 1 and ensure that the requirements of 29 CFR 1926.16 are met for the project. Provide a Safety oversight team that includes a minimum of one (1) person at each project site to function as the Site Safety and Health Officer (SSHO). The SSHO or an equally-qualified Designated Representative/alternate shall be at the work site at all times to implement and administer the Contractor's safety program and government-accepted Accident Prevention Plan. The SSHO's training, experience, and qualifications shall be as required by the EM 385-1-1 paragraph 01.A.17, entitled SITE SAFETY AND HEALTH OFFICER (SSHO), and all associated sub-paragraphs.

A Competent Person shall be provided for all of the hazards identified in the Contractor's Safety and Health Program in accordance with the accepted Accident Prevention Plan, and shall be on-site at all times when the work that presents the hazards associated with their professional expertise is being performed. Provide the credentials of the Competent Persons(s) to the Contracting Officer for acceptance in consultation with the Safety Office.

1.5.1.1.1 Contractor Quality Control (QC) Person:

The Contractor Quality Control Person cannot be the SSHO on this project, even though the QC has safety inspection responsibilities as part of the QC duties.

1.5.1.2 USACE Dredging Contract Requirements

1.5.1.2.1 SSHO Staffing for USACE Dredging Contracts

a. Dredging contracts may include several project sites; this contract will require a minimum of one full time SSHO(s) assigned per project site. SSHO may be collateral duty in specific conditions listed below.

b. Example of one dredging project site is reflected in each of the following:

(1) a mechanical dredge, tug(s) and scow(s), scow route, and material placement site; or

(2) a hydraulic pipeline dredge, attendant plant, and material placement site; or,

(3) a hopper dredge (include land-based material placement site – if applicable.)

c. Individual dredging project sites with work force less than 8 employees, the SSHO may be a collateral duty, with the same responsibilities of a full time SSHO.

d. Hopper dredges with USCG-Documented crews may designate an officer as a collateral-duty SSHO instead of having a full-time SSHO if the officer meets the SSHO training and experience requirements.

1.5.1.2.2 SSHO Requirements for Dredging

a. In addition to requirements stated elsewhere in this specification, the SSHO shall be present at the project site, located so they have full mobility and reasonable access to all major work operations, for at least one shift in each 24 hour period when work is being done. The SSHO, or Alternate SSHO, shall be available during all shifts for immediate verbal consultation and notification, either by phone or radio. The SSHO shall be a full-time, dedicated position, except as noted above. The SSHO shall report to a senior project (or corporate) officials.

b. The SSHO shall inspect all work areas and operations during initial set-up and at least monthly observe and provide personal oversight on each shift during dredging operations for projects with many work sites, more often for those with less work sites.

c. For projects with multiple shifts or when SSHO is temporarily off-site, an Alternate SSHO will be assigned to insure SSHO coverage for the project at all times work activities are conducted. The Alternate SSHO must meet the same requirements and assume the responsibilities of the project SSHO. The Alternate SSHO position may be a collateral duty.

d. If the SSHO is off-site for a period longer than 24 hours, a qualified replacement SSHO shall be provided and shall fulfill the same roles and responsibilities as the primary/initial SSHO.

1.5.1.2.3 Designated Representative (DR) Requirements for Dredging

a. Designated Representatives (DR) are collateral duty safety personnel, with safety duties in addition to their full-time occupation, and support and supplement the SSHO efforts in managing, implementing and enforcing the Contractor's Safety and Health Program. DRs shall be individual(s) with work oversight responsibilities, such as masters, mates, fill foremen, and superintendents. DRs should not be positions requiring continuous mechanical or equipment operations, such as equipment operators.

b. A DR shall be appointed for all remote work locations more than 45 minutes' travel time from the SSHO's duty location, typically including dredged material placement sites, towing and scow operations, and other operations.

c. The DRs will perform safety program tasks as designated by the SSHO and report safety findings to the SSHO/Alternate SSHO. The SSHO shall document results of safety findings and provide information for inclusion in the CQC reports to the Government Representative.

1.5.1.2.4 Safety Personnel Training Requirements for Dredging

a. The SSHO, Alternate SSHO, and Designated Representatives for dredging contracts shall take either the OSHA 30-hour Construction Safety Course or an equivalent 30 hours of formal safety and health training covering the subjects of the OSHA 30-hour Course (see EM 385-1-1 Appendix A, paragraph 4.b) applicable to dredging work and given by qualified instructors.

b. The SSHOs shall also have taken 24 hours of formal classroom or online safety and health related coursework in the past four (4) years. Hours spent as an instructor in such courses will be considered the same as attending them, but each course only gets credit once (ie. Instructing a 1-hour asbestos awareness course 5 times in the past 4 years provides one hour credit for training).

c. The SSHO, Alternate SSHO, and Designated Representatives shall have a minimum of three years' continuous experience within the past 5 years in supervising/ managing dredging, marine or land-based construction, work managing safety programs or processes, or conducting hazard analyses and developing controls in activities or environments with similar hazards. This is in lieu of the construction experience required by paragraph 01.A.17.b, EM 385-1-1.

1.5.1.3 Crane Operators

Meet the crane operators requirements in USACE EM 385-1-1, Section 16 and Appendix I. In addition, for mobile cranes with Original Equipment Manufacturer (OEM) rated capacities of 50,000 pounds or greater, designate crane operators as qualified by a source that qualifies crane operators (i.e., union, a government agency, or an organization that tests and qualifies crane operators). Provide proof of current qualification.

1.5.2 Personnel Duties

1.5.2.1 Site Safety and Health Officer (SSHO)

The SSHO shall:

a. Conduct daily safety and health inspections and maintain a written log which includes area/operation inspected, date of inspection, identified hazards, recommended corrective actions, estimated and actual dates of corrections. Attach safety inspection logs to the Contractors' daily quality control report.

- b. Conduct mishap investigations and complete required reports. Maintain the OSHA Form 300 and Daily Production reports for prime and sub-contractors.
- c. Maintain applicable safety reference material on the job site.
- d. Attend the pre-construction conference, pre-work meetings including preparatory inspection meeting, and periodic in-progress meetings.
- e. Implement and enforce accepted APPS and AHAs.
- f. Maintain a safety and health deficiency tracking system that monitors outstanding deficiencies until resolution. Post a list of unresolved safety and health deficiencies on the safety bulletin board.
- g. Ensure sub-contractor compliance with safety and health requirements.
- h. Maintain a list of hazardous chemicals on site and their material safety data sheets.

Failure to perform the above duties will result in dismissal of the superintendent and/or SSHO, and a project work stoppage. The project work stoppage will remain in effect pending approval of a suitable replacement.

1.5.3 Meetings

1.5.3.1 Preconstruction Conference

- a. Contractor representatives who have a responsibility or significant role in accident prevention on the project shall attend the preconstruction conference. This includes the project superintendent, site safety and health officer, quality control supervisor, or any other assigned safety and health professionals who participated in the development of the APP (including the Activity Hazard Analyses (AHAs) and special plans, program and procedures associated with it).
- b. Discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated AHAs that will be developed and implemented during the performance of the contract. This list of proposed AHAs will be reviewed at the conference and an agreement will be reached between the Contractor and the Contracting Officer's representative as to which phases will require an analysis. In addition, establish a schedule for the preparation, submittal, review, and acceptance of AHAs to preclude project delays.
- c. Deficiencies in the submitted APP will be brought to the attention of the Contractor at the preconstruction conference, and the Contractor shall revise the plan to correct deficiencies and re-submit it for acceptance. Do not begin work until there is an accepted APP.
- d. The functions of a Preconstruction conference may take place at the Post-Award Kickoff meeting for Design Build Contracts.

1.6 ACCIDENT PREVENTION PLAN (APP)

Use a qualified person to prepare the written site-specific APP. Prepare the APP in accordance with the format and requirements of USACE EM 385-1-1 and as supplemented herein. Cover all paragraph and subparagraph elements in USACE EM 385-1-1, Appendix A, "Minimum Basic Outline for Accident Prevention Plan" and show compliance with NASA NPG 8715.3. Specific requirements for some of the APP elements are described below. The APP shall be job-specific and address any unusual or unique aspects of the project or activity for which it is written. The APP shall interface with the Contractor's overall safety and health program. Include any portions of the Contractor's overall safety

and health program referenced in the APP in the applicable APP element and made site-specific. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out. The APP shall be signed by the person and firm (senior person) preparing the APP, the Contractor, the on-site superintendent, the designated site safety and health officer and any designated CSP and/or CIH.

Submit the APP to the Contracting Officer 15 calendar days prior to the date of the preconstruction conference for acceptance. Work cannot proceed without an accepted APP.

Once accepted by the Contracting Officer, the APP and attachments will be enforced as part of the contract. Disregarding the provisions of this contract or the accepted APP will be cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified.

Once work begins, changes to the accepted APP shall be made with the knowledge and concurrence of the Contracting Officer, project superintendent, SSHO and quality control manager. Should any hazard become evident, stop work in the area, secure the area, and develop a plan to remove the hazard. Notify the Contracting Officer within 24 hours of discovery. Eliminate/remove the hazard. In the interim, take all necessary action to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public (as defined by ASSE/SAFE A10.34,) and the environment.

Copies of the accepted plan will be maintained at the Contracting Officers Representative's office and at the job site.

Continuously review and amend the APP, as necessary, throughout the life of the contract. Incorporate unusual or high-hazard activities not identified in the original APP as they are discovered.

1.6.1 EM 385-1-1 Contents

In addition to the requirements outlines in Appendix A of USACE EM 385-1-1, the following is required:

[a. Crane Critical Lift Plan.

Prepare and sign weight handling critical lift plans for lifts over 75 percent of the capacity of the crane or hoist (or lifts over 50 percent of the capacity of a barge mounted mobile crane's hoists) at any radius of lift; lifts involving more than one crane or hoist; lifts of personnel; and lifts involving non-routine

rigging or operation, sensitive equipment, or unusual safety risks. Submit 15 calendar days prior to on-site work and include the requirements of USACE EM 385-1-1, paragraph 16.H. and the following:

(1) For lifts of personnel, demonstrate compliance with the requirements of 29 CFR 1926.1400.

(2) For barge mounted mobile cranes, barge stability calculations identifying barge list and trim based on anticipated loading; and load charts based on calculated list and trim. The amount of list and trim shall be within the crane manufacturer's requirements.]

[f. Occupant Protection Plan. The safety and health aspects of lead-based paint removal, prepared in accordance with Section 02 83 19.00 10 LEAD BASED PAINT HAZARD ABATEMENT, TARGET HOUSING & CHILD OCCUPIED FACILITIES.]

[h. Asbestos Hazard Abatement Plan. The safety and health aspects of asbestos work, prepared in accordance with Section 02 82 14.00 10 ASBESTOS HAZARD CONTROL ACTIVITIES.]

[i. Site Safety and Health Plan. The safety and health aspects prepared in accordance with Section 01 35 29.13 HEALTH, SAFETY, AND EMERGENCY RESPONSE PROCEDURES FOR CONTAMINATED SITES.]

[j. PCB Plan. The safety and health aspects of Polychlorinated Biphenyls work, prepared in accordance with Sections 02 84 33 REMOVAL AND DISPOSAL OF POLYCHLORINATED BIPHENYLS (PCBs) and 02 61 23 REMOVAL AND DISPOSAL OF PCB CONTAMINATED SOILS.]

[k. Site Demolition Plan. The safety and health aspects prepared in accordance with Section 02 41 00 [DEMOLITION] [AND] [DECONSTRUCTION] and referenced sources. Include engineering survey as applicable.]

[l. Excavation Plan. The safety and health aspects prepared in accordance with Section 31 00 00 EARTHWORK.]

1.7 ACTIVITY HAZARD ANALYSIS (AHA)

The Activity Hazard Analysis (AHA) format shall be in accordance with USACE EM 385-1-1, Section 1. Submit the AHA for review at least 15 calendar days prior to the start of each phase. Format subsequent AHAs as amendments to the APP. The analysis should be used during daily inspections to ensure the implementation and effectiveness of the activity's safety and health controls.

The AHA list will be reviewed periodically (at least monthly) at the Contractor supervisory safety meeting and updated as necessary when procedures, scheduling, or hazards change.

Develop the activity hazard analyses using the project schedule as the basis for the activities performed. Any activities listed on the project schedule will require an AHA. The AHAs will be developed by the contractor, supplier or subcontractor and provided to the prime contractor for submittal to the Contracting Officer.

1.8 DISPLAY OF SAFETY INFORMATION

Within 1 calendar days after commencement of work, erect a safety bulletin board at the job site. Where size, duration, or logistics of project do not facilitate a bulletin board, an alternative method, acceptable to the Contracting Officer, that is accessible and includes all mandatory information for employee and visitor review, shall be deemed as meeting the requirement for a bulletin board. Include and maintain information on safety bulletin board as required by EM 385-1-1, section 01.A.06. Additional items required to be posted include:

- a. Confined space entry permit.
- b. Hot work permit.

1.9 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project, including those listed in the article "References." Maintain applicable equipment manufacturer's manuals.

1.10 EMERGENCY MEDICAL TREATMENT

Contractors will arrange for their own emergency medical treatment. Government has no responsibility to provide emergency medical treatment.

1.11 NOTIFICATIONS AND REPORTS

1.11.1 Accident Notification

Notify the Contracting Officer as soon as practical, but not later than 30 minutes after any accident meeting the definition of Recordable Injuries or Illnesses or High Visibility Accidents, property damage equal to or greater than \$2,000, or any weight handling equipment accident. Within notification include contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description of accident (to include type of construction equipment used, PPE used, etc.). Preserve the conditions and evidence on the accident site until the Government investigation team arrives on-site and Government investigation is conducted.

1.11.2 Accident Reports

a. Conduct an accident investigation for recordable injuries and illnesses, for Medical Treatment defined in paragraph DEFINITIONS, property damage accidents resulting in at least \$20,000 in damages, and near misses as defined in EM 385-1-1, to establish the root cause(s) of the accident. Complete the applicable USACE Accident Report Form 3394, and provide the report to the Contracting Officer within 5 calendar day(s) of the accident. The Contracting Officer will provide copies of any required or special forms.

b. Conduct an accident investigation for any weight handling equipment accident (including rigging gear accidents) to establish the root cause(s) of the accident, complete the WHE Accident Report (Crane and Rigging Gear) form and provide the report to the Contracting Officer within 30 calendar days of the accident. Do not proceed with crane operations until cause is determined and corrective actions have been implemented to the satisfaction of the contracting officer. The Contracting Officer will provide a blank copy of the accident report form.

1.11.3 Crane Reports

Submit crane inspection reports required in accordance with USACE EM 385-1-1, Appendix H and as specified herein with Daily Reports of Inspections.

1.11.4 Certificate of Compliance

Provide a Certificate of Compliance for each crane entering an activity under this contract (see Contracting Officer for a blank certificate).

State within the certificate that the crane and rigging gear meet applicable OSHA regulations (with the Contractor citing which OSHA regulations are applicable, e.g., cranes used in construction, demolition, or maintenance comply with 29 CFR 1926 and USACE EM 385-1-1 Section 16 and Appendix I. Certify on the Certificate of Compliance that the crane operator(s) is qualified and trained in the operation of the crane to be used.[For cranes at DOD activities in foreign countries, certify that the crane and rigging gear conform to the appropriate host country safety standards.] Also certify that all of its crane operators working on the DOD activity have been trained in the proper use of all safety devices (e.g., anti-two block devices). Post certifications on the crane.

1.12 HOT WORK

Submit and obtain a written permit prior to performing "Hot Work" (welding, cutting, etc.) or operating other flame-producing/spark producing devices, from the Fire Marshall. A permit is required from the Explosives Safety Office for work in and around where explosives are processed, stored, or handled. CONTRACTORS ARE REQUIRED TO MEET ALL CRITERIA BEFORE A PERMIT IS ISSUED. Provide at least two (2) twenty (20) pound 4A:20 BC rated extinguishers for normal "Hot Work". All extinguishers shall be current inspection tagged, approved safety pin and tamper resistant

seal. It is also mandatory to have a designated FIRE WATCH for any "Hot Work" done at this activity. The Fire Watch shall be trained in accordance with NFPA 51B and remain on-site for a minimum of 30 minutes after completion of the task or as specified on the hot work permit.

When starting work in the facility, require personnel to familiarize themselves with the location of the nearest fire alarm boxes and place in memory the emergency Fire Marshall's phone number. ANY FIRE, NO MATTER HOW SMALL, SHALL BE REPORTED TO THE RESPONSIBLE FIRE MARSHALL IMMEDIATELY.

Obtain services from a NFPA Certified Marine Chemist for "HOT WORK" within or around flammable materials (such as fuel systems, welding/cutting on fuel pipes) or confined spaces (such as sewer wet wells, manholes, vaults, etc.) that have the potential for flammable or explosive atmospheres.

1.13 RADIATION SAFETY REQUIREMENTS

License Certificates for radiation materials and equipment shall be submitted to the Contracting Officer and Radiation Safety Office (RSO) for all specialized and licensed material and equipment that could cause fatal harm to construction personnel or to the construction project.

Workers shall be protected from radiation exposure in accordance with 10 CFR 20. Standards for Protection Against Radiation.

Loss of radioactive material shall be reported immediately to the Contracting Officer.

Actual exposure of the radiographic film or unshielding the source shall not be initiated until after 5 p.m. on weekdays.

In instances where radiography is scheduled near or adjacent to buildings or areas having limited access or one-way doors, no assumptions shall be made as to building occupancy. Where necessary, the Contracting Officer will direct the Contractor to conduct an actual building entry, search, and alert.

Where removal of personnel from such a building cannot be accomplished and it is otherwise safe to proceed with the radiography, a fully instructed employee shall be positioned inside such building or area to prevent exiting while external radiographic operations are in process. Transportation of Regulated Amounts of Radioactive Material will comply with 49 CFR, Subchapter C, Hazardous Material Regulations. Local Fire authorities and the site Radiation Safety officer (RSO) shall be notified of any Radioactive Material use.

Transmitter Requirements: The base policy concerning the use of transmitters such as radios, cell phones, etc., must be adhered to by all contractor personnel. They must also obey Emissions control (EMCON) restrictions.

1.14 FACILITY OCCUPANCY CLOSURE

Streets, walks, and other facilities occupied and used by the Government shall not be closed or obstructed without written permission from the Contracting Officer.

1.15 SEVERE STORM PLAN

In the event of a severe storm warning, the Contractor must:

- a. Secure outside equipment and materials and place materials that could be damaged in protected areas.

- b. Check surrounding area, including roof, for loose material, equipment, debris, and other objects that could be blown away or against existing facilities.
- c. Ensure that temporary erosion controls are adequate.

1.16 CONFINED SPACE ENTRY REQUIREMENTS

Contractors entering and working in confined spaces while performing general industry work are required to follow the requirements of OSHA 29 CFR 1926 and comply with the requirements in Section 34 of EM 385-1-1, OSHA 29 CFR 1910, and OSHA 29 CFR 1910.146.

PART 2 PRODUCTS

PART 3 EXECUTION

3.1 CONSTRUCTION AND/OR OTHER WORK

3.1.1 Hazardous Material Exclusions

Notwithstanding any other hazardous material used in this contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation (with the exception of radioactive material and devices used in accordance with USACE EM 385-1-1 such as nuclear density meters for compaction testing and laboratory equipment with radioactive sources) as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocyanates, lead-based paint are prohibited. The Contracting Officer, upon written request by the Contractor, may consider exceptions to the use of any of the above excluded materials. Low mercury lamps used within fluorescent lighting fixtures are allowed as an exception without further Contracting Officer approval. Notify the Radiation Safety Officer (RSO) prior to excepted items of radioactive material and devices being brought on base.

3.1.2 Unforeseen Hazardous Material

The design should have identified materials such as PCB, lead paint, and friable and non-friable asbestos and other OSHA regulated chemicals (i.e. 29 CFR Part 1910.1000). If material, not indicated, that may be hazardous to human health upon disturbance during construction operations is encountered, stop that portion of work and notify the Contracting Officer immediately. Within 14 calendar days the Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to "FAR 52.243-4, Changes" and "FAR 52.236-2, Differing Site Conditions."

3.2 PRE-OUTAGE COORDINATION MEETING

Apply for utility outages at least 15 days in advance. As a minimum, the request should include the location of the outage, utilities being affected, duration of outage and any necessary sketches. Special requirements for electrical outage requests are contained elsewhere in this specification section. Once approved, and prior to beginning work on the utility system requiring shut down, attend a pre-outage coordination meeting with the Contracting Officer [and the[Installation representative][Public Utilities representative]] to review the scope of work and the lock-out/tag-out procedures for worker protection. No work will be performed on energized electrical circuits unless proof is provided that no other means exist.

3.3 CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT)

Ensure that each employee is familiar with and complies with these procedures and USACE EM 385-1-1, Section 12, Control of Hazardous Energy.

3.4 FALL HAZARD PROTECTION AND PREVENTION PROGRAM

Establish a fall protection and prevention program, for the protection of all employees exposed to fall hazards. Within the program include company policy, identify responsibilities, education and training requirements, fall hazard identification, prevention and control measures, inspection, storage, care and maintenance of fall protection equipment and rescue and evacuation procedures in accordance with ASSE/SAFE Z359.1.

3.4.1 Training

Institute a fall protection training program. As part of the Fall Hazard Protection and Prevention Program, provide training for each employee who might be exposed to fall hazards. Provide training by a competent person for fall protection in accordance with USACE EM 385-1-1, section 21.B.

3.4.2 Fall Protection Equipment and Systems

Enforce use of the fall protection equipment and systems designated for each specific work activity in the Fall Protection and Prevention Plan and/or AHA at all times when an employee is exposed to a fall hazard. Protect employees from fall hazards as specified in EM 385-1-1, section 21. In addition to the required fall protection systems, safety skiff, personal floatation devices, life rings etc., are required when working above or next to water in accordance with USACE EM 385-1-1, paragraphs 05.H. and 05.I. Personal fall arrest systems are required when working from an articulating or extendible boom, swing stages, or suspended platform. In addition, personal fall arrest systems are required when operating other equipment such as scissor lifts if the work platform is capable of being positioned outside the wheelbase. The need for tying-off in such equipment is to prevent ejection of the

employee from the equipment during raising, lowering, or travel. Fall protection must comply with 29 CFR 1926.500, Subpart M, USACE EM 385-1-1 and ASSE/SAFE A10.32.

3.4.2.1 Personal Fall Arrest Equipment

Personal fall arrest equipment, systems, subsystems, and components shall meet ASSE/SAFE Z359.1. Only a full-body harness with a shock-absorbing lanyard or self-retracting lanyard is an acceptable personal fall arrest body support device. Body belts may only be used as a positioning device system (for uses such as steel reinforcing assembly and in addition to an approved fall arrest system). Harnesses shall have a fall arrest attachment affixed to the body support (usually a Dorsal D-ring) and specifically designated for attachment to the rest of the system. Only locking snap hooks and carabiners shall be used. Webbing, straps, and ropes shall be made of synthetic fiber. The maximum free fall distance when using fall arrest equipment shall not exceed 6 feet. The total fall distance and any swinging of the worker (pendulum-like motion) that can occur during a fall shall always be taken into consideration when attaching a person to a fall arrest system.

3.4.3 Fall Protection for Roofing Work

Implement fall protection controls based on the type of roof being constructed and work being performed. Evaluate the roof area to be accessed for its structural integrity including weight-bearing capabilities for the projected loading.

a. Low Sloped Roofs:

(1) For work within 6 feet of an edge, on low-slope roofs, protect personnel from falling by use of personal fall arrest systems, guardrails, or safety nets. A safety monitoring system is not adequate fall protection and is not authorized.

(2) For work greater than 6 feet from an edge, erect and install warning lines in accordance with 29 CFR 1926.500 and USACE EM 385-1-1.

b. Steep-Sloped Roofs: Work on steep-sloped roofs requires a personal fall arrest system, guardrails with toe-boards, or safety nets. This requirement also includes residential or housing type construction.

3.4.4 Horizontal Lifelines

Design, install, certify and use under the supervision of a qualified person horizontal lifelines for fall protection as part of a complete fall arrest system which maintains a safety factor of 2 (29 CFR 1926.500).

3.4.5 Guardrails and Safety Nets

Design, install and use guardrails and safety nets in accordance with EM 385-1-1 and 29 CFR 1926 Subpart M.

3.4.6 Rescue and Evacuation Procedures

When personal fall arrest systems are used, the contractor must ensure that the mishap victim can self-rescue or can be rescued promptly should a fall occur. Prepare a Rescue and Evacuation Plan and include a detailed discussion of the following: methods of rescue; methods of self-rescue; equipment used; training requirement; specialized training for the rescuers; procedures for requesting rescue and medical assistance; and transportation routes to a medical facility. Include the Rescue and

Evacuation Plan within the Activity Hazard Analysis (AHA) for the phase of work, in the Fall Protection and Prevention (FP&P) Plan, and the Accident Prevention Plan (APP).

3.5 EQUIPMENT

3.5.1 Material Handling Equipment

a. Material handling equipment such as forklifts shall not be modified with work platform attachments for supporting employees unless specifically delineated in the manufacturer's printed operating instructions.

b. The use of hooks on equipment for lifting of material must be in accordance with manufacturer's printed instructions.

c. Operators of forklifts or power industrial trucks shall be licensed in accordance with OSHA.

3.5.2 Weight Handling Equipment

a. Equip cranes and derricks as specified in EM 385-1-1, section 16.

b. Comply with the crane manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Perform erection under the supervision of a designated person (as defined in ASME B30.5). Perform all testing in accordance with the manufacturer's recommended procedures.

c. Comply with ASME B30.5 for mobile and locomotive cranes, ASME B30.22 for articulating boom cranes, ASME B30.3 for construction tower cranes, and ASME B30.8 for floating cranes and floating derricks.

- d. Under no circumstance shall a Contractor make a lift at or above 90% of the cranes rated capacity in any configuration.
- e. When operating in the vicinity of overhead transmission lines, operators and riggers shall be alert to this special hazard and follow the requirements of USACE EM 385-1-1 section 11 and ASME B30.5 or ASME B30.22 as applicable.
- f. Do not crane suspended personnel work platforms (baskets) unless the Contractor proves that using any other access to the work location would provide a greater hazard to the workers or is impossible. Do not lift personnel with a line hoist or friction crane.
- g. Inspect, maintain, and recharge portable fire extinguishers as specified in NFPA 10, Standard for Portable Fire Extinguishers.
- h. All employees must keep clear of loads about to be lifted and of suspended loads.
- i. Use cribbing when performing lifts on outriggers.
- j. The crane hook/block must be positioned directly over the load. Side loading of the crane is prohibited.
- k. A physical barricade must be positioned to prevent personnel from entering the counterweight swing (tail swing) area of the crane.
- l. Certification records which include the date of inspection, signature of the person performing the inspection, and the serial number or other identifier of the crane that was inspected shall always be available for review by Contracting Officer personnel.
- m. Written reports listing the load test procedures used along with any repairs or alterations performed on the crane shall be available for review by Contracting Officer personnel.
- n. Certify that all crane operators have been trained in proper use of all safety devices (e.g. anti-two block devices).

3.5.3 USE OF EXPLOSIVES

Explosives shall not be used or brought to the project site without prior written approval from the Contracting Officer. Such approval shall not relieve the Contractor of responsibility for injury to persons or for damage to property due to blasting operations.

Storage of explosives, when permitted on Government property, shall be only where directed and in approved storage facilities. These facilities shall be kept locked at all times except for inspection, delivery, and withdrawal of explosives.

3.6 EXCAVATIONS

Soil classification must be performed by a competent person in accordance with 29 CFR 1926 and EM 385-1-1.

3.6.1 Utility Locations

All underground utilities in the work area must be positively identified by a third party, independent, private utility locating company in addition to any station locating service and coordinated with the station utility department.

3.6.2 Utility Location Verification

Physically verify underground utility locations, including utility depth, by hand digging using wood or fiberglass handled tools when any adjacent construction work is expected to come within three feet of the underground system.

3.6.3 Utilities Within and Under Concrete, Bituminous Asphalt, and Other Impervious Surfaces

Utilities located within and under concrete slabs or pier structures, bridges, parking areas, and the like, are extremely difficult to identify.

Whenever contract work involves chipping, saw cutting, or core drilling through concrete, bituminous asphalt or other impervious surfaces, the existing utility location must be coordinated with station utility departments in addition to location and depth verification by a third party, independent, private locating company. The third party, independent, private locating company shall locate utility depth by use of Ground Penetrating Radar (GPR), X-ray, bore scope, or ultrasound prior to the start of demolition and construction. Outages to isolate utility systems must be used in circumstances where utilities are unable to be positively identified. The use of historical drawings does not alleviate the contractor from meeting this requirement.

3.7 ELECTRICAL

3.7.1 Portable Extension Cords

Size portable extension cords in accordance with manufacturer ratings for the tool to be powered and protected from damage. Immediately removed from service all damaged extension cords. Portable extension cords shall meet the requirements EM 385-1-1, NFPA 70E, and OSHA electrical standards.

3.8 WORK IN CONFINED SPACES

Comply with the requirements in Section 34 of USACE EM 385-1-1, OSHA 29 CFR 1910, OSHA 29 CFR 1910.146, OSHA Directive CPL 2.100 and OSHA

29 CFR 1926. Any potential for a hazard in the confined space requires a permit system to be used.

a. Entry Procedures. Prohibit entry into a confined space by personnel for any purpose, including hot work, until the qualified person has conducted appropriate tests to ensure the confined or enclosed space is safe for the work intended and that all potential hazards are controlled or eliminated and documented. (See Section 06.I.06 of USACE EM 385-1-1 for entry procedures.) All hazards pertaining to the space shall be reviewed with each employee during review of the AHA.

b. Forced air ventilation is required for all confined space entry operations and the minimum air exchange requirements must be maintained to ensure exposure to any hazardous atmosphere is kept below its' action level.

c. Sewer wet wells require continuous atmosphere monitoring with audible alarm for toxic gas detection.

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SECTION 01 45 01

USACE QUALITY CONTROL

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

(2008) Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction

(2008) Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

U.S. ARMY CORPS OF ENGINEERS (USACE)

ER 1110-1-12

(2006) Quality Management

1.2 PAYMENT

Separate payment will not be made for providing and maintaining an effective Quality Control program, and all associated costs will be included in the applicable Bid Schedule unit or lump-sum prices.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

Establish and maintain an effective quality control (QC) system in compliance with the Contract Clause titled "Inspection of Construction." QC consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. Cover all construction operations, both onsite and offsite, and be keyed to the proposed construction sequence.

The project superintendent will be held responsible for the quality of work and is subject to removal by the Contracting Officer for non-compliance with the quality requirements specified in the contract. In this context the highest level manager responsible for the overall construction activities at the site, including quality and production is the project superintendent. The project superintendent must maintain a physical presence at the site at all times and is responsible for all construction and related activities at the site, except as otherwise acceptable to the Contracting Officer.

3.2 QUALITY CONTROL PLAN

Submit no later than 15 days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause titled "Inspection of Construction." The Government will consider an interim plan for the first 30 days of operation. Construction will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional work.

3.2.1 Content of the CQC Plan

Include, as a minimum, the following to cover all construction operations, both onsite and offsite, including work by subcontractors, fabricators, suppliers, and purchasing agents:

- a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff will implement the three phase control system for all aspects of the work specified. Include a CQC System Manager who reports to the project superintendent.
- b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.
- c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. Letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities will be issued by the CQC System Manager. Copies of these letters must be furnished to the Government.
- d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents.

These procedures must be in accordance with Section 01 33 00 SUBMITTAL PROCEDURES.

e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities approved by the Contracting Officer must be used.)

f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. Establish verification procedures that identified deficiencies have been corrected.

h. Reporting procedures, including proposed reporting formats.

i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable features under a particular section. This list will be agreed upon during the coordination meeting.

3.2.3 Acceptance of Plan

Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in his CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.2.4 Notification of Changes

After acceptance of the CQC Plan, notify the Contracting Officer in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

3.3 COORDINATION MEETING

After the Preconstruction Conference, before start of construction and prior to acceptance by the Government of the CQC Plan, meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. Submit the CQC Plan a minimum of 5 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details must be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both

onsite and offsite work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting will be prepared by the Government, signed by both the contractor and the Contracting Officer and will become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 Personnel Requirements

The requirements for the CQC organization are a CQC System Manager and sufficient number of additional qualified personnel to ensure safety and contract compliance. The Safety and Health Manager must receive direction and authority from the CQC System Manager and serve as a member of the CQC staff. Personnel identified in the technical provisions as requiring specialized skills to assure the required work is being performed properly will also be included as part of the CQC organization. The Contractor's CQC staff must maintain a presence at the site at all times during progress of the work and have complete authority and responsibility to take any action necessary to ensure contract compliance. The CQC staff will be subject to acceptance by the Contracting Officer. Provide adequate office space, filing systems and other resources as necessary to maintain an effective and fully functional CQC organization. Promptly complete and furnish all letters, material submittals, shop drawing submittals, schedules and all other project documentation to the CQC organization. The CQC organization shall be responsible to maintain these documents and records at the site at all times, except as otherwise acceptable to the Contracting Officer.

3.4.2 CQC System Manager

Identify as CQC System Manager an individual within the onsite work organization who is responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager must be a graduate engineer, graduate architect, or a graduate of construction management, or a person with a minimum of 2 years of dredging experience on work similar to this contract. This CQC System Manager must be on the site at all times during construction and be employed by the prime Contractor. The CQC System Manager must be assigned no other duties. Identify in the plan an alternate to serve in the event of the CQC System Manager's absence. The requirements for the alternate are the same as the CQC System Manager.

3.4.3 Additional Requirement

In addition to the above experience and/or education requirements the CQC System Manager shall have completed the course entitled "Construction Quality Management For Contractors". This course is periodically offered at the Mobile District Corps of Engineers.

3.4.4 Organizational Changes

The Contractor shall maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

3.5 SUBMITTALS AND DELIVERABLES

Submittals, if needed, shall be made as specified in Section 01 33 00 SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals and deliverables are in compliance with the contract requirements. When Section 23 08 00.00 10 COMMISSIONING OF HAVAC SYSTEMS are included in the contract, the submittals required by those sections must be coordinated with Section 01 33 00 SUBMITTAL PROCEDURES to ensure adequate time is allowed for each type of submittal required.

3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of the construction work as follows:

3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase shall include:

- a. A review of each paragraph of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field shall be made available by the Contractor at the preparatory inspection. These copies shall be maintained in the field and available for use by Government personnel until final acceptance of the work.
- b. A review of the contract drawings.

- c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.
- d. Review of provisions that have been made to provide required control inspection and testing.
- e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
- f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
- g. A review of the appropriate activity hazard analysis to assure safety requirements are met.
- h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.
- i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.
- j. Discussion of the initial control phase.
- k. The Government shall be notified at least 24 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.6.2 Initial Phase

This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

- a. A check of work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.
- b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.

- c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.
- d. Resolve all differences.
- e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- f. The Government shall be notified at least 24 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
- g. The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

3.6.3 Follow-up Phase

Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work which may be affected by the deficient work. The Contractor shall not build upon nor conceal non-conforming work.

3.6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on the same definable features of work if: the quality of on-going work is unacceptable; if there are changes in the applicable CQC staff, onsite production supervision or work crew; if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop.

3.7 RESERVED

3.8 COMPLETION INSPECTION

3.8.1 Punch-Out Inspection

Near the end of the work, or any increment of the work established by a time stated in the SPECIAL CONTRACT REQUIREMENTS Clause, "Commencement, Prosecution, and Completion of Work", or by the specifications, the CQC Manager shall conduct an inspection of the work. A

punch list of items which do not conform to the approved drawings and specifications shall be prepared and included in the CQC documentation, as required by paragraph DOCUMENTATION. The list of deficiencies shall include the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall notify the Government that the facility is ready for the Government Pre-Final inspection.

3.8.2 Pre-Final Inspection

The Government will perform the pre-final inspection to verify that the facility is complete and ready to be occupied. A Government Pre-Final Punch List may be developed as a result of this inspection. The Contractor's CQC System Manager shall ensure that all items on this list have been corrected before notifying the Government, so that a Final inspection with the customer can be scheduled. Any items noted on the Pre-Final inspection shall be corrected in a timely manner. These inspections and any deficiency corrections required by this paragraph shall be accomplished within the time slated for completion of the entire work or any particular increment of the work if the project is divided into increments by separate completion dates.

3.8.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer's Representative shall be in attendance at the final acceptance inspection. Additional Government personnel including, but not limited to, those from Base/Post Civil Facility Engineer user groups, and major commands may also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. Notice shall be given to the Contracting Officer at least 14 days prior to the final acceptance inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the contract clause titled "Inspection of Construction".

3.9 DOCUMENTATION

The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:

- a. Contractor/subContractor and their area of responsibility.
- b. Operating plant/equipment with hours worked, idle, or down for repair.
- c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.
- d. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase shall be identified (Preparatory, Initial, Follow-up). List of deficiencies noted, along with corrective action.
- e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.
- f. Submittals and deliverables reviewed, with contract reference, by whom, and action taken.
- g. Offsite surveillance activities, including actions taken.
- h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- i. Instructions given/received and conflicts in plans and/or specifications.
- j. Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within 24 hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of

test reports and copies of reports prepared by all subordinate quality control personnel.

3.10 SAMPLE FORMS

Sample forms enclosed at the end of this section.

3.11 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

--End of Section--

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-- End of Section Table of Contents -

SECTION 01 45 01.10

USACE QUALITY CONTROL SYSTEM (QCS)

PART 1 GENERAL

1.1 Contract Administration

The Government will use the Resident Management System for Windows (RMS) to assist in its monitoring and administration of this contract. The Contractor must use the Government-furnished Construction Contractor Module of RMS, referred to as QCS, to record, maintain, and submit various information throughout the contract period. The Contractor module, user manuals, updates, and training information can be downloaded from the RMS web site. This joint Government-Contractor use of RMS and QCS will facilitate electronic exchange of information and overall management of the contract. QCS provides the means for the Contractor to input, track, and electronically share information with the Government in the following areas:

Administration

Finances

Quality Control

Submittal Monitoring

Scheduling

Import/Export of Data

1.1.1 Correspondence and Electronic Communications

For ease and speed of communications, both Government and Contractor will, to the maximum extent feasible, exchange correspondence and other documents in electronic format. Correspondence, pay requests and other documents comprising the official contract record will also be provided in paper format, with signatures and dates where necessary. Paper documents will govern, in the event of discrepancy with the electronic version.

1.1.2 Other Factors

Particular attention is directed to Contract Clause, "Schedules for Construction Contracts", Contract Clause, "Payments", Section 01 33 00 SUBMITTAL PROCEDURES, and Section 01 45 01 USACE QUALITY CONTROL, which have a direct relationship to the reporting to be accomplished through QCS. Also, there is no separate payment for establishing and maintaining the QCS database; all costs associated therewith will be included in the contract pricing for the work.

1.2 QCS SOFTWARE

QCS is a Windows-based program that can be run on a stand-alone personal computer or on a network. The Government will make available the QCS software to the Contractor after award of the construction contract. Prior to the Pre-Construction Conference, the Contractor will be responsible to download, install and use the latest version of the QCS software from the Government's RMS Internet Website. Upon specific justification and request by the Contractor, the Government can provide QCS on CD-ROM. Any program updates of QCS will be made available to the Contractor via the Government RMS Website as they become available.

1.3 SYSTEM REQUIREMENTS

The following is the minimum system configuration that the Contractor must have to run QCS:

IBM-compatible PC with 1000 MHz Pentium or higher processor 256+ MB RAM for workstation / 512+ MB RAM for server 1 GB hard drive disk space for sole use by the QCS system 3-1/2 inch high-density floppy drive Compact Disk (CD) Reader 8x speed or higher SVGA or higher resolution monitor (1024x768, 256 colors) Mouse or other pointing device Windows compatible printer. (Laser printer must have 4 MB+ of RAM) Connection to the Internet, minimum 56k BPS

Software

MS Windows 2000 or higher QAS-Word Processing software: MS Word 2000 or newer Latest version of: Netscape Navigator, Microsoft Internet

Explorer, or other browser that supports HTML 4.0 or higher Electronic mail (E-mail) MAPI compatible Virus protection software that is regularly upgraded with all issued manufacturer's updates

1.4 RELATED INFORMATION

1.4.1 QCS User Guide

After contract award, download instructions for the installation and use of QCS from the Government RMS Internet Website. In case of justifiable difficulties, the Government will provide the Contractor with a CD-ROM containing these instructions.

1.4.2 Contractor Quality Control (CQC) Training

The use of QCS will be discussed with the Contractor's QC System Manager during the mandatory CQC Training class.

1.5 CONTRACT DATABASE

Prior to the pre-construction conference, the Government will provide the Contractor with basic contract award data to use for QCS. The Government will provide data updates to the Contractor as needed, generally by using the Government's SFTP repository built into QCS import/export function. These updates will generally consist of submittal reviews, correspondence status, QA comments, and other administrative and QA data.

1.6 DATABASE MAINTENANCE

Establish, maintain, and update data in the QCS database throughout the duration of the contract at the Contractor's site office. Submit data updates to the Government (e.g., daily reports, submittals, RFI's, schedule updates, payment requests, etc.) using the Government's SFTP repository built into QCS export function. If permitted by the Contracting Officer, e-mail or CD-ROM may be used instead of E-mail (see Paragraph DATA SUBMISSION VIA CD-ROM). The QCS database typically includes current data on the following items:

1.6.1 Administration

1.6.1.1 Contractor Information

Contain within the database the Contractor's name, address, telephone numbers, management staff, and other required items. Within 14 calendar days of receipt of QCS software from the Government, deliver Contractor administrative data in electronic format.

1.6.1.2 Subcontractor Information

Contain within the database the name, trade, address, phone numbers, and other required information for all subcontractors. A subcontractor must be listed separately for each trade to be performed. Assign each subcontractor/trade a unique Responsibility Code, provided in QCS. Within 14 calendar days of receipt of QCS software from the Government, deliver subcontractor administrative data in electronic format.

1.6.1.3 Correspondence

Identify all Contractor correspondence to the Government with a serial number. Prefix correspondence initiated by the Contractor's site office with "S". Prefix letters initiated by the Contractor's home (main) office with "H". Letters must be numbered starting from 0001. (e.g., H-0001 or S-0001). The Government's letters to the Contractor will be prefixed with "C".

1.6.1.4 Equipment

Contain within the Contractor's QCS database a current list of equipment planned for use or being used on the jobsite, including the most recent and planned equipment inspection dates.

1.6.1.5 Management Reporting

QCS includes a number of reports that Contractor management can use to track the status of the project. The value of these reports is reflective of the quality of the data input, and is maintained in the various sections of QCS. Among these reports are: Progress Payment Request worksheet, QA/QC comments, Submittal Register Status, Three-Phase Inspection checklists.

1.6.1.6 Request For Information (RFI)

Exchange all Requests For Information (RFI) using the Built-in RFI generator and tracker in QCS.

1.6.2 Finances

1.6.2.1 Pay Activity Data

Include within the QCS database a list of pay activities that the Contractor must develop in conjunction with the construction schedule. The sum of all pay activities must be equal to the total contract amount, including modifications. Group pay activities Contract Line Item Number (CLIN); the sum of the activities must equal the amount of each CLIN. The total of all CLINs equals the Contract Amount.

1.6.2.2 Payment Requests

Prepare all progress payment requests using QCS. Complete the payment request worksheet, prompt payment certification, and payment invoice in QCS. Update the work completed under the contract, measured as percent or as specific quantities, at least monthly. After the update, generate a payment request report using QCS. Submit the payment request, prompt payment certification, and payment invoice with supporting data using the Government's SFTP repository built into QCS export function. If permitted by the Contracting Officer, e-mail or a CD-ROM may be used. A signed paper copy of the approved payment request is also required, which will govern in the event of discrepancy with the electronic version.

1.6.3 Quality Control (QC)

QCS provides a means to track implementation of the 3-phase QC Control System, prepare daily reports, identify and track deficiencies, document progress of work, and support other Contractor QC requirements. Maintain this data on a daily basis. Entered data will automatically output to the QCS generated daily report. Provide the Government a Contractor Quality Control (CQC) Plan within the time required in

Section 01 45 01 USACE QUALITY CONTROL. Within seven calendar days of Government acceptance, submit a QCS update reflecting the information contained in the accepted CQC Plan: schedule, pay activities, features of work, submittal register, QC requirements, and equipment list.

1.6.3.1 Daily Contractor Quality Control (CQC) Reports.

QCS includes the means to produce the Daily CQC Report. The Contractor may use other formats to record basic QC data. However, the Daily CQC Report generated by QCS must be the Contractor's official report. Summarize data from any supplemental reports by the Contractor and consolidate onto the QCS-generated Daily CQC Report. Submit daily CQC Reports as required by Section 01 45 01 USACE QUALITY CONTROL. Electronically submit reports to the Government within 24 hours after the date covered by the report. Also provide the Government a signed, printed copy of the daily CQC report.

1.6.3.2 Deficiency Tracking.

Use QCS to track deficiencies. Deficiencies identified by the Contractor will be numerically tracked using QC punch list items. Maintain a current log of its QC punch list items in the QCS database. The Government will log the deficiencies it has identified using its QA punch list items. The Government's QA punch list items will be included in its export file to the Contractor. Regularly update the correction status of both QC and QA punch list items.

1.6.3.3 QC Requirements

Develop and maintain a complete list of QC testing and required structural and life safety special inspections required by the International Code Council (ICC), transferred and installed property, and user training requirements in QCS. Update all data on these QC requirements as work progresses, and promptly provide this information to the Government via QCS.

1.6.3.4 Three-Phase Control Meetings

Maintain scheduled and actual dates and times of preparatory and initial control meetings in QCS.

1.6.3.5 Labor and Equipment Hours

Log labor and equipment exposure hours on a daily basis. This data will be rolled up into a monthly exposure report.

1.6.3.6 Accident/Safety Reporting

The Government will issue safety comments, directions, or guidance whenever safety deficiencies are observed. The Government's safety comments will be included in its export file to the Contractor. Regularly update the correction status of the safety comments. In addition, utilize QCS to advise the Government of any

accidents occurring on the jobsite. This brief supplemental entry is not to be considered as a substitute for completion of mandatory reports, e.g., ENG Form 3394 and OSHA Form 300.

1.6.3.7 Features of Work

Include a complete list of the features of work in the QCS database. A feature of work may be associated with multiple pay activities. However, each pay activity (see subparagraph "Pay Activity Data" of paragraph "Finances") will only be linked to a single feature of work.

1.6.3.8 Hazard Analysis

Use QCS to develop a hazard analysis for each feature of work included in the CQC Plan. Address any hazards, or potential hazards, that may be associated with the work.

1.6.4 Submittal Management

The Government will provide the initial submittal register in electronic format. Thereafter, maintain a complete list of all submittals, including completion of all data columns. Dates on which submittals are received and returned by the Government will be included in its export file to the Contractor. Use QCS to track and transmit all submittals. ENG Form 4025, submittal transmittal form, and the submittal register update must be produced using QCS. QCS and RMS will be used to update, store and exchange submittal registers and transmittals, but will not be used for storage of actual submittals.

1.6.5 Schedule

Develop a construction schedule consisting of pay activities, in accordance with Section 01 32 01.00 10 PROJECT SCHEDULE. Input and maintain in the QCS database this schedule either manually or by using the Standard Data Exchange Format (SDEF) (see Section 01 32 01.00 10 PROJECT SCHEDULE). Include with each pay request the updated schedule.

1.6.6 Import/Export of Data

QCS includes the ability to export Contractor data to the Government and to import submittal register and other Government-provided data from RMS, and schedule data using SDEF.

1.7 IMPLEMENTATION

Contractor use of QCS as described in the preceding paragraphs is mandatory. Ensure that sufficient resources are available to maintain its QCS database, and to provide the Government with regular database updates. QCS shall be an integral part of the Contractor's management of quality control.

1.8 DATA SUBMISSION VIA CD-ROM

The Government-preferred method for Contractor's submission of QCS data is by using the Government's SFTP repository built into QCS export function. Other data should be submitted using E-mail with file attachment(s). For locations where this is not feasible, the Contracting Officer may permit use of CD-ROM for data transfer. Export data onto CDs using the QCS built-in export function. If used, submit CD-ROMs in accordance with the following:

1.8.1 File Medium

Submit in English required data on CD-ROM conforming to industry standards used in the United States.

1.8.2 CD-ROM Labels

Affix a permanent exterior label to each CD-ROM submitted. Indicate on the label in English, the QCS file name, full contract number, contract name, project location, data date, name and telephone number of person responsible for the data.

1.8.3 File Names

The files will be automatically named by the QCS software. The naming convention established by the QCS software must not be altered.

1.9 MONTHLY COORDINATION MEETING

Update the QCS database each workday. At least monthly, generate and submit an export file to the Government with schedule update and progress payment request. As required in Contract Clause "Payments", at least one week prior to submittal, meet with the Government representative to review the planned progress payment data submission for errors and omissions.

Make all required corrections prior to Government acceptance of the export file and progress payment request. Payment requests accompanied by incomplete or incorrect data submittals will be returned. The Government will not process progress payments until an acceptable QCS export file is received.

1.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the requirements of this specification. Take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, will be deemed sufficient for the purpose of notification.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

-- End of Section -

SECTION 01 45 00.15 10

RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE (RMS CM)

11/16

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this section to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1(2014) Safety and Health Requirements Manual

1.2 Contract Administration

The Government will use the Resident Management System (RMS) to assist in its monitoring and administration of this contract. The Contractor uses the Government-furnished Construction Contractor Mode of RMS, referred to as RMS CS, to record, maintain, and submit various information throughout the contract period. The Contractor mode user manuals, updates, and training information can be downloaded from the RMS web site (<http://rms.usace.army.mil>). The joint Government-Contractor use of RMS facilitates electronic exchange of information and overall management of the contract. QCS provides the means for the Contractor to input, track, and electronically share information with the Government in the following areas:

- Administration
- Finances
- Quality Control
- Submittal Monitoring
- Scheduling
- Import/Export of Data

1.2.1 Correspondence and Electronic Communications

For ease and speed of communications, exchange correspondence and other documents in electronic format to the maximum extent feasible between the Government and Contractor. Correspondence, pay requests and other documents comprising the official contract record are also be provided in paper format, with signatures and dates where necessary. Paper documents will govern, in the event of discrepancy with the electronic version.

1.2.2 Other Factors

Particular attention is directed to Contract Clause, "Schedules for Construction Contracts", Contract Clause, "Payments", Section 01 32 01.00 10 PROJECT SCHEDULE, Section 01 33 00 SUBMITTAL PROCEDURES, and Section 01 45 00.00 10 QUALITY CONTROL, which have a direct relationship to the reporting to be accomplished through RMS. Also, there is no separate payment for establishing and maintaining the RMS database; costs associated will be included in the contract pricing for the work.

1.3 RMS SOFTWARE

RMS is a Windows-based program that can be run on a Windows based PC meeting the requirements as specified in Section 1.3. The Government will make available the RMS software to the Contractor after award of the construction contract. Prior to the Pre-Construction Conference, the Contractor will be responsible to download, install and use the latest version of the RMS software from the Government's RMS Internet Website. Any program updates of RMS will be made available to the Contractor via the Government RMS Website as the updates become available.

1.3.1 RMS CONTRACTOR'S MODE (CM)

RMS Contractor's Mode or RMS CM is the replacement for Quality Control System or QCS. The database remains the same. References to RMS in this specification includes RMS CM.

1.4 SYSTEM REQUIREMENTS

The following is the minimum system configuration required to run RMS and Contractor Mode:

Minimum RMS System Requirements	
Hardware	
Windows-based PC	1.5 GHz 2 core or higher processor
RAM	8 GB
Hard drive disk	200 GB space for sole use by the QCS system
Monitor	Screen resolution 1366 x 768
Mouse or other pointing device	
Windows compatible printer	Laser printer must have 4 MB+ of RAM
Connection to the Internet	minimum 4 Mbs per user
Software	
MS Windows	Windows 7 x 64 bit (RMS requires 64 bit O/S) or newer
Word Processing software	Viewer for MS Word 2013, MS Excel 2013, or newer
Microsoft.NET Framework	Coordinate with Government QA Representative for free version required

Minimum RMS System Requirements	
Email	MAPI compatible
Virus protection software	Regularly upgraded with all issued manufacturer's updates and is able to detect most zero day viruses.

1.5 RELATED INFORMATION

1.5.1 RMS User Guide

After contract award, download instructions for the installation and use of RMS from the Government RMS Internet Website.

1.6 CONTRACT DATABASE

Prior to the pre-construction conference, the Government will provide the Contractor with basic contract award data to use for RMS. The Government will provide data updates to the Contractor as needed. These updates will generally consist of submittal reviews, correspondence status, Quality Assurance (QA) comments, and other administrative and QA data.

1.7 DATABASE MAINTENANCE

Establish, maintain, and update data in the RMS database throughout the duration of the contract at the Contractor's site office. Submit data updates to the Government (e.g., daily reports, submittals, RFI's, schedule updates, payment requests) using RMS. The RMS database typically includes current data on the following items:

1.7.1 Administration

1.7.1.1 Contractor Information

Contain within the database the Contractor's name, address, telephone numbers, management staff, and other required items. Within 7 calendar days of receipt of RMS software from the Government, deliver Contractor administrative data in electronic format in RMS.

1.7.1.2 Subcontractor Information

Contain within the database the name, trade, address, phone numbers, and other required information for all subcontractors. A subcontractor is listed separately for each trade to be performed. Assign each subcontractor/trade a unique Responsibility Code, provided in RMS. Within 7 calendar days of receipt of RMS software from the Government, deliver subcontractor administrative data in electronic format.

1.7.1.3 Correspondence

Identify all Contractor correspondence to the Government with a serial number. Prefix correspondence initiated by the Contractor's site office with "S". Prefix letters initiated by the Contractor's home (main) office with "H". Letters are numbered starting from 0001. (e.g., H-0001 or S-0001). The Government's letters to the Contractor will be prefixed with "C".

1.7.1.4 Equipment

Contain within the Contractor's RMS database a current list of equipment planned for use or being used on the jobsite, including the most recent and planned equipment inspection dates.

1.7.1.5 Management Reporting

RMS includes a number of reports that Contractor management can use to track the status of the project. The value of these reports is reflective of the quality of the data input, and is maintained in the various sections of RMS. Among these reports are: Progress Payment Request worksheet, Quality Assurance/Quality Control (QA/QC) comments, Submittal Register Status, Three-Phase Control checklists.

1.7.1.6 Request For Information (RFI)

Exchange all Requests For Information (RFI) using the Built-in RFI generator and tracker in RMS.

1.7.2 Finances

1.7.2.1 Pay Activity Data

Include within the RMS database a list of pay activities that the Contractor develops in conjunction with the construction schedule. The sum of pay activities equals the total contract amount, including modifications. Each pay activity must be assigned to a Contract Line Item Number (CLIN). The sum of the activities equals the amount of each CLIN. The sum of all CLINs equals the contract amount.

1.7.2.2 Payment Requests

Prepare all progress payment requests using RMS. Complete the payment request worksheet, prompt payment certification, and payment invoice in RMS. Update the work completed under the contract, measured as percent or as specific quantities, at least monthly. After the update, generate a payment request report using RMS. Submit the payment request, prompt payment certification, and payment invoice with supporting data using RMS CM. If permitted by the Contracting Officer, email or a optical disc may be used. A signed paper copy of the approved payment request is also required and will govern in the event of discrepancy with the electronic version.

1.7.3 Quality Control (QC)

RMS provides a means to track implementation of the 3-phase QC Control System, prepare daily reports, identify and track deficiencies, document progress of work, and support other Contractor QC requirements. Maintain this data on a daily basis. Entered data will automatically output to the RMS generated daily report. Provide the Government a Contractor Quality Control (CQC) Plan within the time required in Section 01 45 00.00 10 QUALITY CONTROL. Within seven calendar days of Government acceptance, submit a RMS update reflecting the information contained in the accepted CQC Plan: schedule, pay activities, features of work, submittal register, QC requirements, and equipment list.

1.7.3.1 Daily Contractor Quality Control (CQC) Reports.

RMS includes the means to produce the Daily CQC Report. The Contractor can use other formats to record basic Quality Control (QC) data. However, the Daily CQC Report generated by RMS must be the Contractor's official report. Summarize data from any supplemental reports by the Contractor and consolidate onto the RMS-generated Daily CQC Report. Submit daily CQC Reports as required by Section 01 45 00.00 10 QUALITY CONTROL. Electronically submit reports to the Government within 24 hours after the date covered by the report. Also provide the Government a signed, printed copy of the daily CQC report.

1.7.3.2 Deficiency Tracking.

Use RMS to track deficiencies. Deficiencies identified by the Contractor will be numerically tracked using its Quality Control (QC) punch list items. Maintain a current log of its QC punch list items in the RMS database. The Government will log the deficiencies it has identified using its Quality Assurance (QA) punch list items. The Government's QA punch list items will be included in its export file to the Contractor. Regularly update the correction status of both QC and QA punch list items.

1.7.3.3 QC Requirements

Develop and maintain a complete list of QC testing and required structural and life safety special inspections required by the International Code Council (ICC), transferred and installed property, and user training requirements in RMS. Update data on these QC requirements as work progresses, and promptly provide the information to the Government via RMS.

1.7.3.4 Three-Phase Control Meetings

Maintain scheduled and actual dates and times of preparatory and initial control meetings in RMS.

1.7.3.5 Labor and Equipment Hours

Log labor and equipment exposure hours on a daily basis. The labor and equipment exposure data will be rolled up into a monthly exposure report.

1.7.3.6 Accident/Safety Reporting

The Government will issue safety comments, directions, or guidance whenever safety deficiencies are observed. The Government's safety comments will be provided via RMS CM. Regularly update the correction status of the safety comments. In addition, utilize RMS to advise the Government of any accidents occurring on the jobsite. A brief supplemental entry of an accident is not to be considered as a substitute for completion of mandatory reports, e.g., ENG Form 3394 and OSHA Form 300.

1.7.3.7 Features of Work

Include a complete list of the features of work in the RMS database. A feature of work is associated with multiple pay activities. However, each pay activity (see subparagraph "Pay Activity Data" of paragraph "Finances") will only be linked to a single feature of work.

1.7.3.8 Hazard Analysis

Use RMS CM to develop a hazard analysis for each feature of work included in the CQC Plan. The Activity Hazard Analysis will include information required by EM 385-1-1, paragraph 01.A.13.

1.7.4 Submittal Management

The Government will provide the initial submittal register in electronic format. Thereafter, maintain a complete list of submittals, including completion of data columns. Dates when submittals are received and returned by the Government will be included. Use RMS CM to track and transmit submittals. ENG Form 4025, submittal transmittal form, and the submittal register update is produced using RMS. RMS will be used to update, store and exchange submittal registers and transmittals. In addition to requirements stated in specification 01 33 00, actual submittals are to be stored in RMS CM, with hard copies also provided. Exception will be where the Contracting Officer specifies only hard copies required, where size of document cannot be saved in RMS CM, and where samples, spare parts, color boards, and full size drawings are to be provided.

1.7.5 Schedule

Develop a construction schedule consisting of pay activities, in accordance with Section 01 32 01.00 10 PROJECT SCHEDULE. Input and maintain in the RMS database the schedule either manually or by using the Standard Data Exchange Format (SDEF) (see Section 01 32 01.00 10 PROJECT SCHEDULE). Include with each pay request the updated schedule. Provide electronic copies of transmittals.

1.7.6 Import/Export of Data

RMS includes the ability to import schedule data using SDEF.

1.8 IMPLEMENTATION

Use of RMS CM as described in the preceding paragraphs is mandatory. Ensure that sufficient resources are available to maintain contract data within the RMS CM system. RMS CM is an integral part of the Contractor's management of quality control.

1.9 MONTHLY COORDINATION MEETING

Update the RMS CM database each workday. At least monthly, generate and submit a schedule update. At least one week prior to submittal, meet with the Government representative to review the planned progress payment data submission for errors and omissions.

Make required corrections prior to Government acceptance of the export file and progress payment request. Payment requests accompanied by incomplete or incorrect data submittals will not be accepted. The Government will not process progress payments until all required corrections are processed.

1.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the requirements of this specification. Take immediate corrective action after receipt of such notice. Such notice, when

delivered to the Contractor at the work site, will be deemed sufficient for the purpose of notification.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

-- End of Section --

4. VERBAL INSTRUCTIONS RECEIVED: (List any instructions given by Government personnel on construction deficiencies, retesting required, etc., with action to be taken.)

5. REMARKS: (Cover any conflicts in plans, specifications or instructions: acceptability of incoming materials: offsite surveillance activities; progress of work, delays, causes and extent thereof; days of no work with reasons for same.)

6. SAFETY: (Include any infractions of approved safety plan, safety manual or instructions from Government personnel. Specify corrective action taken.)

INSPECTOR

CONTRACTOR'S CERTIFICATION: I certify that the above report is complete and correct and that all material and equipment used, work performed and tests conducted during this reporting period were in strict compliance with the contract plans and specifications except as noted above.

CONTRACTOR'S APPROVED AUTHORIZED REPRESENTATIVE

DAILY REPORT OF OPERATIONS -- HOPPER DREDGES						REPORTS CONTROL SYMBOL ENG CW-0-13							
DISTRICT						DREDGE							
EXACT LOCATION OF WORK				<input type="checkbox"/> MAINTENANCE <input type="checkbox"/> NEW WORK		DATE							
						NUMBER OF PERSONS IN CREW							
AV. LENGTH OF CUT		FT.		CHARACTER OF MATERIAL		HOPPER CAPACITY		CU. YDS.					
AV. WIDTH OF CUT		FT.		DENSITY OF MAT. IN PLACE		GMS/LITER		AV. VOL. OF BIN WATER		CU. YDS.			
AV. DIST. TO DUMP		MILES		DENSITY OF WATER		GMS/LITER AT		°F		AV. UNFILLED CAPACITY		CU. YDS.	
NAVIGATION AND OTHER DREDGING AIDS (Describe and include statement on adequacy and recommendations)													
WORK PERFORMED						DRAFT FOR LOAD NO. (for one load only)							
DREDGING AND HAULING				AGITATING		FORWARD		LIGHT		LOADED			
NO. OF LOADS		TOT. CU. YDS.		DISPOSAL AREA		TOT. CU. YDS.		AFT					
								DRAG DEPTH		MAX.		MIN.	
								INDICATORS LAST CHECKED ON					
								GAS EJECTORS USED		% OF PUMPING TIME			
DISTRIBUTION OF TIME AND MILES RUN													
				AGITATING (Minutes)		DREDGING AND HAULING (Minutes)				MILES RUN (Stat. Miles)			
EFFECTIVE WORKING TIME													
PUMPING													
TURNING													
TO DUMP													
DUMPING													
TO CUT													
TOTALS													
NON-EFFECTIVE WORKING TIME													
TAKING ON FUEL AND SUPPLIES													
TO AND FROM WHARF OR ANCHORAGE													
LOSS DUE TO NATURAL ELEMENTS													
LOSS DUE TO TRAFFIC AND BRIDGES													
MINOR OPERATING REPAIRS													
TRANSFERRING BETWEEN WORKS													
LAY TIME													
FIRE AND BOAT DRILLS													
MISCELLANEOUS													
TOTALS													
LOST TIME													
MAJOR REPAIRS AND ALTERATIONS													
CESSATION													
COLLISIONS													
TOTAL LOST TIME													
TOTAL TIME IN PERIOD													
AVERAGE SPEED OF DREDGE						MINUTES RADAR IN USE							
				FEET/MINUTE		TIDE DATA WAS OBTAINED BY MEANS OF							
LOADING						WEATHER							
AGITATING													
GALS. OF FUEL OIL CONSUMED						NUMBER OF INSPECTIONS BY SUPERVISORY PERSONNEL							
GALS. OF WATER CONSUMED						FIELD			OFFICE				
REMARKS													
SUBMITTED BY													
(SEE REVERSE SIDE)													

BREAKDOWN OF LOADS DREDGED AND HAULED															DATE			
LOAD NO	UNWATERED *	TIME PUMP		MINUTES					CUBIC YARDS RETAINED (In terms of in place material)						MID-DEPTH SAMPLES			
		STARTED	STOPPED	PUMPING	TURNING	TO DUMP	DUMPING	TO CUT	TOTAL	SETTLED SOLIDS ***	SUSPENDED SOLIDS ***	BIN WATER SOLIDS	TOTAL **	PER PUMPING MINUTE	PER ELAPSED MINUTE	GMS / NL SITE YR ***	% SOLIDS (in place) ***	MATE AND DRAGTENDERS
AVERAGE																		
ECONOMIC LOAD DATA																		
PUMPING TIME (Minutes)				ECONOMIC LOAD (Cu Yds)						TEST LOAD NO.				DATE OF TEST				
REMARKS																		

NOTE: *WHEN LOAD IS DREDGED WITH HOPPERS UNWATERED, INDICATE BY LETTER "U".
 **TOTAL CUBIC YARDS RETAINED = SETTLED SOLIDS + SUSPENDED SOLIDS - BIN WATER SOLIDS OR DETERMINED DIRECTLY BY YARDAGE METER.
 ***NOT NECESSARY WHEN MEASURING LOAD BY YARDAGE METER.

SAFETY CHECKLIST FOR FLOATING PLANT			
Contract # and title:			
Contractor:		Subcontractor:	
Plant Name:		Owner:	
Superintendent:		Captain:	
Engineer:		Number in crew:	
Contract inspector:		Date inspected:	
This checklist references EM 385 1-1, revised 3 November 2003		Yes	No
1. Is a copy of the current USCG Form 835 available for plants regulated by USCG? (19.A.01)			
2. Is documentation of an accredited marine surveyor (SAMS or NAMS) available for non-USCG inspected plants? (19.A.01)			
3. Do all officers and crew possess an appropriate USCG license or USACE license and certification? (19.A.02)			
4. Are periodic inspections and test records of all floating plant, equipment, and machinery available as part of the official project file? (19.A.01)			
5. Is there a severe weather plan which contains the following available? (19.A.03)			
a. A description of potential types of severe weather hazards and steps to guard against the hazards? b. The time frame for implementing the plan? c. The name and location of the safe harbor? d. The name of the vessels which will be used to move any non-self propelled plant, and their type, capacity, speed, and availability? e. River gage readings at which floating plant must be moved away from dams, river structures, etc. to safe areas?			

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 Reference: EM 385-1-1, 3 November 2003 edition.

	Yes	No	N/A
6. Is the station bill conspicuously posted throughout the vessel? (19.A.04)			
7. Has each crewmember been given a written description of their emergency duties and are they familiar with them? (19.A.04)			
8. Have the following drills and tests been recorded in the station log? (19.A.04) a. Abandon ship drill? b. Fire drill? c. Man overboard drill? d. Pump shell or pipe rupture? e. Hull failure? f. Emergency power and lighting tests? g. Bimonthly emergency power generator tests? h. Bimonthly emergency lighting storage batteries tests? Note: First set of drills shall be conducted within 24 hours of occupancy or commencement of work.			
9. Are material safety data sheets (MSDSs) available for all hazardous materials on board? (06.B.01)			
10. Are employees trained to handle hazardous materials? (06.B.01)			
11. Are at least two employees on each shift certified in CPR and first aid? (03.A.02)			
12. Is there a first aid log at each first aid station? (01.D.04)			
13. Are first aid kits located in a readily accessible location and adequately stocked? (03.B.01 & .02)			
14. Is there an adequate supply of approved, potable drinking water available? (02.A.01)			
15. Are outlets dispensing non-potable water clearly marked "Water Unfit For Drinking, Washing or Cooking"? (02.A.07)			
16. Are the proper numbers of toilets, washbasins and showers provided? (02.B.06 & .07)			

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	Yes	No	N/A
17. Are water, soap, and a means of drying available? (02.C.02)			
18. Is the latest information published by the USCG regarding aids to navigation available on board the vessel? (19.A.11)			
19. Is the vessel equipped with: (19.A.05) <ul style="list-style-type: none"> a. Fenders? b. Axes or other emergency cutting equipment? c. An appropriate navigational signal device? d. General alarm system operated from primary electrical system with standby batteries on trickle charge? e. Easily accessible emergency controls that are adequately protected against accidental operation? f. Explosion-proof lights around gasoline and oil barges or other locations where a fire or explosive hazard exists? g. Interconnected emergency alarms? h. Smoke alarms in living quarters? i. Carbon Dioxide CO monitors in all occupied spaces? j. Doors that open from both sides? k. Clearly marked emergency exits? l. Emergency stops for prime movers operating a dredge pump? m. GFCI protection on grounded 120 or 240-volt systems in toilet/shower spaces, galley, machinery spaces, weather deck, exterior or near any sinks? n. Properly maintained and identified watertight compartments? 			
20. Fuel systems: (19.A.06) <ul style="list-style-type: none"> a. Are tanks or lines free of gauge glasses or try cocks? b. Do all fuel tanks have shutoff valves that can be operated outside the compartment in which the tank is located and outside the engine compartment and outside the house bulkheads at or above the weather deck? c. Is there a shut off valve at the engine end of the fuel lines that are 6 feet or more in length and can it be operated from outside the house bulkheads at or above the weather deck? d. Overboard discharge? 			

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d. Are all carburetors on gasoline engines equipped with a backfire trap or flame arrestor?	Yes	No	N/A
e. Are all carburetors (except downdraft type) equipped with a drip pan, with flame screen, which is continuously emptied by suction from the intake manifold or if permitted by the overboard discharge?			
f. Are fuel storage tanks diked or curbed IAW NAVFAC DM-22? If not are portable tanks used IAW USCG requirements in 46 CFR Parts 64 and 98.3?			
21. Are cables which cross the waterways between floating plants or between plant and mooring marked? (19.A.07)			
22. Is there a fire and emergency warning system (or an established fire watch) on all vessels where people are quartered? (19.A.07)			
23. Are all floors, decks, and bilge's free of accumulation of fuel and grease? (19.A.07)			
24. Are there holdbacks or rings available to secure equipment during rough weather? (19.A.07)			
25. Are all deck openings, elevated surfaces, and similar locations provided with guardrails, bulwarks, or taut cable guard lines? (19.A.07)			
26. Are all rotating machinery, hot pipes, and moving cables guarded against accidental contact? (16.B.03)			
27. Are hazardous energy control procedures available to insure that machinery will not be operated while greasing or making repairs? (12.A.01 & 16.A.08)			
28. Are decks free of tripping hazards or adequately marked in yellow? (19.A.07)			
29. Is all deck cargo carried on fuel barges placed on dunnage? (19.A.07)			
30. Are all pieces of floating plants operating as one unit securely fastened together with no openings (or with guarded openings)? (19.A.07)			
31. Is there a list of confined spaces available? (19.A.08)			

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32. Are all permitted required confined spaces labeled? (19.A.08)	Yes	No	N/A
33. Are engine spaces housing internal combustion engines having electric spark ignition systems equipped with exhaust fans? (19.A.10)			
34. Are all machinery spaces and non-diesel fuel tanks compartments equipped with at least 2 ventilators, fitted with fans? (19.A.10)			
35. Are the following spaces provided with an adequate natural ventilation system? (19.A.10) a. Spaces containing a portable fuel tank? b. Living spaces or galley? c. Other compartment spaces?			
36. Do vent intakes extend to within 1 foot of the bottom of the compartment? (19.A.10)			
37. Is suitable eye protection provided at battery charging stations? (05.B.01 & .05)			
38. Are eye wash stations provided at battery charging stations? (6.B.02)			
39. Are flammable items such as paint and thinners properly stored? (9.B)			
40. Are gasoline and other flammable liquids properly stored, dispensed, and handled? (09.B.01-.30)			
41. Does all electrical wiring meet requirements of USCG-259, the National Electrical Safety Code and the National Electric Code? (11.A.01)			
42. Are insulated mats provided at locations where machinery has exposed live parts? (11.A.07)			
43. Are switch and transformer banks adequately protected and marked to keep unauthorized personnel out of the danger area? (11.A.02)			
44. Are portable electric tools grounded by a multiconductor cord with an identified conductor and a multicontact polarized plug-in receptacle? (11.C.01)			

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	Yes	No	N/A
45. Are ground fault circuit interrupters provided in locations where portable tools could be used? (11.C.05)			
46. Are flexible cords protected in work area, appropriately secured or suspended and are they used for appropriate usages? (11.A.03 and Table 11-1)			
47. Are all means of access properly secured, guarded and free of slipping and tripping hazards? (19.B.01)			
48. Are all working decks, stair treads, ship ladders, platforms, catwalks, and walkways, provided with non-slip surfaces? (19.B.01)			
49. Are grab bars provided on the sides of super structure of tugs, tenders, and launches except where railings are present? (19.B.01)			
50. Are double rung or flat tread type Jacob's ladders restricted to use only when no safer form of access is practical? (19.B.01)			
51. Is there a safe means for boarding or leaving the vessel? Note: Walking on rip-rap should be avoided where practical (19.B.02)			
52. Is there a stairway, ladder, ramp, gangway, or personnel hoist provided at all personnel points of access with breaks of 19" or more in elevation? (19.B.02)			
53. Are gangways and ramps: (19.B.02) a. Secured at one end by at least one point on each side with lines or chains to prevent overturning? b. Supported at the other end in such a manner as to support them and their normal loads in the event they slid off their supports? c. Placed at an angle no greater than that recommended by the manufacturer? d. Provided with a standard guardrail?			
54. Are stairs or permanent inclined ladders provided for vertical access between decks? (9.B.03)			

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	Yes	No	N/A
55. Is there at least 2 feet of clearance on outboard edges used for passageways? (19.B.3)			
56. Is the vessel equipped with at least one portable or permanent ladder with at least one portable or permanent ladder with which to rescue a person in the water? (19.B.04)			
57. Are there at least 2 means of escape from all assembly, sleeping and messing areas on the plant? (19.B.04)			
58. Are all means of access maintained safe and functional? (19.B.04)			
59. Are all floating pipelines used as walkways equipped with a walkway which is at least 20" wide and has a handrail on at least one side? (19.B.05)			
60. Are floating pipelines that are not intended as walkways barricaded on both ends?(19B.05)			
61. Are positive measures taken to raise and secure the ladder and to block suction and discharge lines during maintenance on pumps and suction or discharge lines? (19.D.01)			
<p>62. Do floating or trestle supported dredge pipelines display the following lights at night and in periods of restricted visibility: (19.D.02 and 33 CFR 88.13)</p> <p>a. One row of yellow lights that :</p> <p>(1) Flash 50-70 times per minute?</p> <p>(2) Are visible all around the horizon?</p> <p>(3) Are visible for at least 2 miles on a clear night?</p> <p>(4) Are between 3-10 feet above the water?</p> <p>(5) Are approximately evenly spaced?</p> <p>(6) Are not more than 30 feet apart where the pipeline crosses a navigable channel?</p> <p>(7) Are sufficient in number to clearly show the pipeline's length and course?</p> <p>b. Two red lights at each end of the pipeline (including ends in a channel where the pipeline is separated to allow vessels to pass) that:</p> <p>(1) Are visible all around the horizon?</p> <p>(2) Are visible for at least 2 miles on a clear dark night?</p> <p>(3) Are 3 feet apart in a vertical line with the lower light at the same height above the water as the flashing yellow light?</p>			

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	Yes	No	N/A
63. Is the dredge designed such that a failure or rupture of any dredge pump component including the pipe shall not cause the dredge to sink? (19.D.04)			
64. Is submerged pipeline resting on the bottom where it crosses the navigation channel and is it and the anchoring system no higher than the required project depth? (19.D.03)			
65. Is buoyant or semi-buoyant pipeline fully submerged and on the bottom? (19.D.03)			
66. Is raised pipeline adequately marked? (19.D.03)			
67. Is a bilge alarm or shutdown interface available on any dredge with the dredge pump below the waterline? (19.D.07)			
68. Are two positive means available to secure "stone boxes" when the boxes are under positive pressure? (19.D.08)			
69. Dredge Disposal Sites (19.D.09) <ul style="list-style-type: none"> a. Is there an adequate supply of drinking water? b. Are toilet facilities provided? c. Disposal area watchmen certified in CPR and first aid? d. Is at least one 16-unit first-aid kit available? 			
70. Scows and Barges <ul style="list-style-type: none"> a. Are scows dumping in open ocean waters equipped with remote opening devices to preclude the transfer of personnel between vessels? b. Is a safety means of transferring personnel between the towing vessels and scow provided? c. Have contractors identified general and site-specific adverse weather and sea conditions under which the towing of scows and cargo barges is prohibited? d. Do all barges and scows comply with 46 CFR 174.010 through 174.020 for intact stability of deck cargo barges? e. Are fall protection devices and equipment listed in 21.A.15 used on scows and open barges to prevent employees transiting between the stern and bow of the vessel from fallings into the hopper or falling off the side of the vessel to the structure located 6 feet for more below? 			

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Contractor inspector signature			
Contractor QC/safety officer/project manager signature			

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MOBILE HARBOR

SECTION 01 57 20.00 10.1

ENVIRONMENTAL PROTECTION

PART 1 GENERAL

1.1 APPLICABLE REGULATIONS

The Contractor and their subcontractors in the performance of this contract, shall comply with all applicable Federal, State, and local laws and regulations concerning environmental pollution control and abatement, all applicable provisions of the Corps of Engineers Manual, EM 385-1-1, entitled "Safety and Health Requirements", in effect on the date of solicitation, and the specific requirements stated elsewhere in the contract specifications.

1.2 SCOPE

The work covered by this section consists of furnishing all labor, materials and equipment, and performing all work required for the prevention of environmental pollution during the dredging activities for the Mobile Harbor project, except for those measures set forth in other Technical Provisions of these specifications. For the purpose of this specification, environmental pollution is defined as: a) the presence of chemical, physical, or biological elements or agents that adversely affect human health or welfare; b) unfavorably alter ecological balances; c) affect other species of designated importance of man; or d) degrade the utility of the environment for aesthetic and recreational purposes. The control of environmental pollution requires consideration of air, water, and land, and involves noise control, solid waste management, as well as control of other pollutants.

1.3 SUBCONTRACTORS

The Contractor and their subcontractors shall comply with all requirements under the terms and conditions set out in the permits or certifications issued by the Alabama Department of Environmental Management (ADEM) and in compliance with the provisions of the Contract and applicable Federal, state, and local environmental laws and regulations. Compliance with the provisions of this section by subcontractors shall be the responsibility of the Contractor.

- a. The Contractor shall submit an Environmental Protection Plan, in accordance with provisions as specified.
- b. The Contractor shall record on daily reports any problems in complying with laws, regulations and ordinances, and corrective action taken.

c. The Contractor shall prepare a listing of resources needing protection (i.e., upland vegetation, wetlands, oyster reefs, submerged aquatic vegetation, air quality, noise levels, surface and groundwater quality, fish and wildlife, historical, archeological, and cultural resources) within authorized work areas.

d. The Contractor shall prepare a pollution prevention plan that identifies all potentially hazardous substances on the job site and the intended actions to be taken to prevent the accidental or intentional introduction of such materials into the air, the water or the ground.

e. The Contractor shall set out the procedures to be followed to correct pollution of the environment due to accident, natural causes or failure to follow the procedures identified in the environmental protection plan.

f. The Contractor shall keep dredging and placement activities under surveillance and shall exercise all necessary controls to minimize damage to the environment by noise from equipment and various activities. Areas that have noise levels greater than 85-dB continuously or 140-dB peak (unweighted) impulse must be designated as noise hazardous areas. These work areas must have caution signs displayed at the perimeter of the noise area indicating the presence of hazardous noise levels and requiring the use of hearing protection devices.

g. The Contractor shall detail special provisions taken to meet Federal, state, and local laws and regulations regarding the storage and handling of solid and hazardous waste materials.

1.4 PAYMENT

No separate payment will be made for work covered under this section and all costs in connection therewith will be considered a subsidiary obligation of the Contractor and covered under the contract unit and/or lump sum prices in the Bidding Schedule.

1.5 ENVIRONMENTAL PROTECTION PLAN

Prior to commencement of the work, the Contractor shall, after receipt of Notice of Award of the Contract and at least 7 days prior to the Preconstruction Conference, submit in writing the above Environmental Protection Plan, and shall meet with representative(s) of the Contracting Office to develop mutual understanding relative to compliance with this provision and administration of the environmental protection program.

1.6 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with Federal, State, or local environmental laws or regulations, permits, and other elements of the Contractor's Environmental Protection plan. The Contractor shall, after receipt of such notice, inform the Contracting Officer of the proposed corrective action and take such action when approved by the Contracting Officer. The Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or equitable adjustments allowed to the Contractor for any such suspensions. This is in addition to any other actions the Contracting Officer may take under the contract, or in accordance with the Federal Acquisition Regulation or Federal Law.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 PROTECTION OF WATER RESOURCES

The Contractor shall not pollute any water bodies including streams, lakes, bays, estuaries, or other marine or fresh waters with fuels, oils, acids, or any other harmful materials. It is the responsibility of the Contractor to investigate and comply with all applicable Federal, state, county, and municipal laws concerning water pollution. The discharge of plastics of any kind within estuarine or marine waters is strictly prohibited. All work under this contract shall also be performed in such a manner that objectionable conditions will not be created in proximity to the project areas.

a. The Contracting Officer Representative will designate the proposed areas for excavation and the location of approved placement areas. No other areas are approved for the placement or excavation of material.

b. The Contractor shall comply with all turbidity and monitoring standards and other conditions set forth in the water quality standards as specified by the Alabama Department of Environmental Management (ADEM). The Government will monitor turbidity (NTU's) in the work area throughout the life of the contract to ensure that the Contractor complies with the permit requirements. Turbidity measurements must be taken daily at the dredge and discharge sites and a background location to be determined by the Contractor. The turbidity monitoring report (included in the Environmental Compliance Appendix) shall be filled out and submitted weekly to the Contracting Officer who will then forward to the Mobile District coastal Environment Staff: Ms. Lekesha Reynolds, PD-EC by email Lekesha.w.reynolds@usace.army.mil. The Contractor shall provide the name(s) and credentials of the person(s) responsible for turbidity monitoring in

the Environmental Protection Plan. If turbidity at the placement site exceeds 50 NTUs above background levels outside the prescribed mixing zones, as specified in the permit, the contractor shall cease activities until corrective actions have been taken and turbidity levels have returned to within compliance levels. Should work stoppage occur, the Contractor shall immediately notify the Contracting Officer Representative.

c. Special measures shall be taken to prevent chemicals, fuels, oils, and greases at the beach placement site or along the pipeline from entering area waters, at all times.

d. Contractor shall maintain Best Management Practices (BMPs) at all times during operations to minimize turbidity at both the dredge and placement sites.

e. Discharge of any pollutant into the watercourse is strictly prohibited, except as otherwise specified or allowed in other sections of the Technical Specifications.

f. Wastewater shall be processed, filtered, ponded, or otherwise treated prior to their release from project area into waterways.

g. All dredging equipment must have approved marine sanitation devices. Staging areas must have approved onsite wastewater treatment facilities.

3.2 MOBILE OCEAN DREDGED MATERIAL DISPOSAL SITE (ODMDS)

Placement of the dredged sediments within the ODMDS will be conducted in accordance with the conditions specified below in the Section 103 concurrence letter from U.S. Environmental Protection Agency (EPA) and the Site Management and Monitoring Plan (SMMP). Both of these documents are included in the Environmental Compliance Appendix.

a. Mobile Maintenance Ocean Disposal Conditions

(1) A bathymetry survey of the ODMDS release zone will be conducted within three months prior to initiation of disposal activities.

(2) A bathymetry survey of the ODMDS release zone will be conducted within thirty days of completion of disposal activities.

(3) All disposal will be initiated at least 330 feet within the boundaries of the Mobile ODMDS.

(4) The following special conditions for Dredging Units 02, 06/07, and 10/11 will be followed:

(a) Disposal operations with disposal volumes of less than or equal to 10,800 cubic yards per load have no further restrictions.

(b) For volumes in excess of 10,800 cubic yards, the disposal vessel must dispose at speeds less than 3 knots (kts) (accuracy of +/-1 kts) and no more than one hopper bin may open simultaneously.

(c) Disposal logs shall be maintained for each load in excess of 10,800 cubic yards. The logs will include at a minimum the following:

- DQM load number
- Date, time, and vessel speed at initiation of disposal
- Volume of disposal
- Date, time, and vessel speed of opening and closing of each hopper bin

(d) Disposal logs shall be submitted with the Post-disposal summary report (condition 4 above) or upon request.

(e) Dredging Unit MH 10-02 is defined as Mobile River Channel 141+00 to 156+00. Dredging Unit MH10-06/07 is defined as the Mobile Bay Channel 759+00 to 824+00. Dredging Unit MH10-10/11 is defined as the Mobile Bay Channel 1594+00 to 1760+10.

3.3 RECORDING AND PRESERVING HISTORICAL AND ARCHEOLOGICAL FINDS

All items having any apparent historical or archeological interest, which are discovered in the course of any removing of material and placement activities shall be carefully preserved. The Contractor shall leave the archaeological find undisturbed and immediately report the find to the Contracting Officer Representative and the Mobile District Archeological Staff (attn: Mr. Steven Highland, PD-EI 251-694-3867) so the proper authorities may be notified. Existing historical, archeological and cultural resources within the Contractor's work area will be so designated by the Contracting Officer Representative. All activities associated with these resources shall be coordinated through the Mobile District Archeological Staff (attn: Mr. Steven Highland, PD-EI 251-694-3867).

3.4 PROTECTION OF LAND RESOURCES

The environmental resources within the project boundaries and those outside the limits of permanent work under this contract shall be protected during the entire period of this contract. The Contractor shall confine their activities to areas defined by the drawings and specifications. The Contractor shall perform a preconstruction survey, which includes but is not limited to photographs, and provide this to the Contracting Officer Representative prior to dredging and placement activities.

- a. It is intended that the land resources outside the limits of permanent work completed under this contract be preserved in their present condition or be restored to natural conditions, after completion of dredging and placement activities.
- b. The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in an area approved by the Contracting Officer Representative. The Contracting Officer Representative shall approve all temporary movement or relocation of Contractor facilities.
- c. The Contractor shall be required to maintain all work areas within or without the project boundaries free from dust that would cause a hazard or nuisance to others.
- d. The Contractor shall obliterate all signs of temporary support facilities such as haul roads, work areas, structures, foundations of temporary structures, or any other vestiges of activities as directed by the Contracting Officer Representative.
- e. The Contractor shall construct or install all temporary and permanent erosion and sedimentation control features at the placement site and along the pipeline route.
- f. Solid wastes (excluding clearing debris) includes any waste generated by the Contractor which meets the most complete definition of solid waste as described by Federal, state and local laws and regulations. Solid waste shall be placed in containers that are emptied on a regular schedule. All handling and disposal shall be conducted to prevent spillage and contamination.
- g. Hazardous waste shall be stored, removed from the work area and disposed of in accordance with Federal, state and local laws and regulations.
- h. The Contractor shall use drainage ditches, low ground pressure equipment, matting, geogrids, and/or other types of soil reinforcement as necessary to enable vehicle traffic and other activity.

3.5 PROTECTION OF FISH AND WILDLIFE

The Contractor shall at all times perform all work and take such steps required to prevent any significant interference or disturbance (as determined by the Contracting Officer Representative) to fish and wildlife.

- a. The Contractor will not be permitted to alter water flows or otherwise disturb native habitats adjacent to the project area, which, in the opinion of the Contracting Officer Representative or their appointed representative, are critical to fish or wildlife. Fouling or polluting of water will not be permitted.

b. The Contractor must perform all work within compliance specifications of the permit issued by the Alabama Department of Environmental Management (ADEM) which is included in the Environmental Compliance Appendix.

c. Threatened and Endangered Species: The Contractor shall take all necessary precautions to ensure that activities conducted during the course of this project do not adversely impact listed threatened and endangered species. The Contractor shall instruct all personnel associated with the project of the potential presence of manatees, sea turtles, and Gulf sturgeon in the area, and the need to avoid collisions with and harming these animals. All construction personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing manatees, sea turtles, Gulf sturgeon, dolphins or whales; or destroying or adversely modifying critical habitat of these species which are protected under the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973. The Contractor must take special precautions to ensure adequate protection for wildlife resources.

(1) The Contractor shall adhere to all Federal, State, and local laws and regulations including the 2003 NMFS Gulf Regional Biological Opinion (GRBO) and subsequent amendments.

(2) The Contractor shall coordinate all activities associated with these resources with the Coastal Environment Team, Mobile District (attn: Ms. LeKesha Reynolds, PD-EC at 251-690-3260 or Ms. Jenny Jacobson, PD-E at 251-690-2724).

(3) If there are any incidents (live or dead) involving threatened or endangered species, the Contractor shall notify the Contracting Officer, Contracting Officer Representative, and the following individual(s) **within 24 hours**:

- Ms. Lekesha Reynolds 251-690-3260 (251-327-8650 (after-hours) or Ms. Jennifer Jacobson 251-690-2724, 251-472-7589 (after hours) U.S. Army Corps of Engineers, PD-EC

The Contracting Officer will direct the contractor as to any required shutdown procedures or necessary changes in dredge operation as to reduce the likelihood of additional incidents. The contractor shall suspend dredging immediately if:

- a. Two or more turtle incidents occur within 24 hours
- b. Two turtles incidents, of the same species, occur during dredging
- c. Four turtle incidents, regardless of species, occur during dredging
- d. One gulf sturgeon incident during dredging

d. Protection of Manatees: See "Standard Manatee Construction Conditions" in Environmental Compliance Appendix.

(1) Manatee Sighting: If a manatee(s) is sighted within 100 yards of the project area, all appropriate precautions shall be implemented by the Contractor to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. If a manatee is closer than 50 feet to moving equipment or the project area, the equipment shall be shut down and all construction activities shall cease within the waterway to ensure protection of the manatee. Construction activities shall not resume until the manatee has departed the project area. Animals must not be herded away or harassed into leaving. If construction activity shall cease, the Contractor shall notify the Contracting Officer.

(2) Manatee Signs: Prior to commencement of construction, each vessel involved in construction activities shall display at the vessel control station, or in a prominent location visible to all employees operating the vessel, a temporary sign at least 8-1/2" x 11" reading, "CAUTION: MANATEE HABITAT/IDLE SPEED IS REQUIRED IN CONSTRUCTION AREA." In the absence of a vessel, a temporary 3' x 4' sign reading "CAUTION: MANATEE AREA" shall be posted adjacent to the issued construction permit. A second temporary sign measuring 8-1/2" x 11" reading "CAUTION: MANATEE HABITAT. IDLE SPPED IS REQUIRED IF OPERATIING A VESSEL IN THE CONSTRUCTION AREA. ALL EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION. ALL COLLISIONS WITH AND/OR INJURY TO A MANATEE SHALL BE REPORTED IMMEDIATELY TO THE USFWS IN DAPHNE (251-441-5181)" shall be posted at the dredge operator control station and at a location prominently adjacent to the issued construction permit. The Contractor shall remove the signs upon completion of construction.

(3) Manatee Sighting Reports: Any collisions with a manatee, or sighting of any injured or incapacitated manatee, shall be reported immediately to the Contracting Officer or their appointed representative.

(4) Report Submission: The Contractor shall maintain a log detailing sightings, collisions, or injuries to manatees occurring during the contract period. All data in original form shall be forwarded directly to the Mobile District, Planning and Environmental Division, Coastal Environment Team, P.O. Box 2288 Mobile, Alabama 36628-0001, (Attn: Ms. Lekesha Reynolds) and the Area Engineer within 10 days of collection.

e. Protection of Sea Turtles and Gulf Sturgeon - Hopper Dredging Only: the Contractor shall implement the following conditions:

(1) Observers: The contractor shall supply NMFS-approved protected species observers to be aboard the hopper dredges to monitor the hopper dredged material, screening, and dragheads for sea turtles and Gulf sturgeon. Observer coverage shall be 100 percent (24 hr/day). During transit to and from the placement area, the observer shall monitor from the bridge during daylight hours for the presence of endangered species. During dredging operations, while dragheads are submerged, the observer shall continuously monitor the inflow and/or overflow screening for turtles and Gulf sturgeon and/or parts of these species. Upon completion of each load cycle, dragheads should be monitored as the draghead is lifted from the sea surface and is placed on the saddle in order to assure that any sea turtle that may be impinged is not lost or unaccounted for. Observers shall physically inspect dragheads and inflow and overflow screening/boxes for threatened and endangered species takes.

(2) New Operations and Dredging Endangered Species System (ODESS) Reporting System (preferred): The ODESS system, which consists of a tablet computer with an Internet connection, shall be a standalone system, exclusive to other systems, and shall have USACE ODESS data collection and reporting software, referred to as the ODESS Field collector (FC) tool, installed by USACE ODESS support personnel. In the event hardware or software problems prevent the storage or transmission of the collected data, paper copies of the latest ODESS forms and information shall be maintained and submitted to ODESS support and the USACE Inspector or Contracting Officer Representative according to the schedule outlined in the contract specifications. Hardware and Software requirements for the system can be found at the end of this section.

Prior to the initiation of the project, Observers shall be familiar with the operation of the ODESS FC tool and proficient in its use so as to be able to prepare and transmit the results of their observations. ODESS system webinar training can be requested by contacting ODESS Support at ODESS@usace.army.mil or 1-877-840-8024.

Depending on the target audience (Observer, dredging Contractor, USACE District personnel, or other Federal agencies), ODESS training could, in addition to the webinar training, consist of demonstrating the steps involved in setting up the FC tool on the dredge, loading Observer-collected data and attachments into the FC tool, submitting these data and attachments to the ODESS database, and/or navigating around the ODESS public website to view and pull down data and/or decision-making information for later analysis.

(3) ODESS Monitoring Reports (preferred): Observers shall record the results of the threatened and endangered species monitoring in the ODESS system by filling in the appropriate electronic forms on the ODESS FC tool and transmitting the data to the ODESS database. If there is an issue with recording data straight to the FC tool due to the logistical nature of how the Observer is collecting this data, paper copies of these forms can be downloaded from the ODESS public website (<http://dqm.usace.army.mil/odess/#/download>) and later entered into the FC tool when the Observer has the best opportunity.

Prior to the start of dredging, Observers shall verify that the ODESS FC tool is installed and operational on a dredge's dedicated tablet computer and that a viable Internet connection is available. In addition, before a project is initiated, on the ODESS FC tool homepage Observers shall retrieve (or "pull down") project-specific information from the ODESS database and perform a one-time setup of the dredging project by establishing the dredge name and time zone. During the project, the following forms shall be used in the FC tool and submitted to the ODESS database at the indicated reporting frequency:

(a) Load Data Form: Observers shall complete the Load Data Form, including a description of screen contents and sea conditions, based on their observations. This form shall be completed and transmitted to the ODESS database for each load. At the end of each Observer shift, or when an Internet signal is available (not to exceed 24 hours from the start of the shift), the Observer shall submit all of their Load Data Forms. If this is not possible due to hardware or software problems, the Observer shall revert to email submission of the forms to ODESS@usace.army.mil and Lekesha.W.Reynolds@usace.army.mil.

(b) Sea Turtle Incidental Data Form: If a sea turtle or its remains are identified during a load inspection, after the appropriate parties are notified via telephone, a Sea Turtle Incidental Data Form shall be completed and submitted to the ODESS database as soon as possible (not to exceed 12 hours after the incident). Any applicable documentation (scanned copies of the paper Observer load and incident forms, species photos, etc.) shall be included as electronic attachments (.JPG or .PDF) and submitted using the FC tool.

(c) Sturgeon Incidental Data Form: If a sturgeon or sturgeon parts are identified during a load, after the appropriate parties are notified, a Sturgeon Incidental Data Form shall be completed and submitted to the ODESS database as soon as possible (not to exceed 12 hours after the incident). Any applicable documentation

(scanned copies of the paper Observer load and incident forms, species photos, etc.) shall be included as electronic attachments (.JPG or .PDF) and submitted using the FC tool.

(d) Marine Mammal Observation Data Form: If a large whale is observed, both the Dredge Load and the Marine Mammal Observation Data Forms shall be completed and submitted (not to exceed 12 hours after the observation) to ODESS Support at ODESS@usace.army.mil consistent with the endangered species compliance section of the contract specification.

(3) The contractor shall provide a digital camera, with an image resolution capability of 300 dpi, in order to photographically report all incidental sea turtle and Gulf sturgeon takes during dredging operations. Immediately following an incidental take of a sea turtle or Gulf sturgeon, images shall be provided to accompany load data and incidental take forms submitted to the ODESS system. The nature of findings shall be fully described in the incidental take forms including references to photographs.

(4) Screening: Sea turtle observers are required on hopper dredges and shall provide for 100% inflow screening of dredged material; 100% overflow screening is recommended. If conditions prevent 100% inflow screening, inflow screening may be reduced gradually, as further detailed in the following paragraph, but 100% overflow screening is then required.

(5) Screen Size: The hopper's inflow screens shall have 4-inch by 4-inch screening. If the Contracting Officer Representative, in consultation with observers and the draghead operator, determines that the draghead is clogging and reducing production substantially, the screens may be modified sequentially: mesh size may be increased to 6-inch by 6-inch, then 9-inch by 9-inch, then 12-inch by 12-inch openings. Further clogging may compel removal of the screening altogether, in which case effective 100% overflow screening would be required.

The Contactor Officer Representative shall request permission before doing so by contacting Mobile District Coastal Environmental Team (Ms. Lekesha Reynolds 251-690-3260) prior to the reductions in screening. The Contactor shall provide an explanation for such reduction in the dredging report.

(6) Dredging Pumps: Standard operating procedure shall be that dredging pumps are disengaged by the operator when the dragheads are not firmly on the bottom, to prevent impingement or entrainment of sea turtles within the water column.

(7) Sea Turtle Deflector Requirements:

(a) Sea Turtle Deflecting Draghead: A state-of-the-art rigid deflector draghead must be used on all hopper dredges in all Gulf of Mexico channels and sand mining sites at all times of the year and shall be installed while performing hopper dredging operations under this contract. The contractor shall submit drawings showing the proposed sea turtle deflector device and its attachment to the equipment being used. Drawings submitted shall include the approach angle for any and all depths to be dredged during the dredging. A copy of the approved drawings and calculations shall be available on the vessel during the dredging.

(b) Hopper Dredge Equipment: Hopper dredge drag heads shall be equipped with rigid sea turtle deflectors, which are rigidly attached. No dredging shall be performed by the hopper dredge without a turtle deflector device that has been approved by the Contracting Officer Representative.

(c) Deflector Design: The leading v-shaped portion of the deflector shall have an included angle of less than 90 degrees. Internal reinforcement shall be installed in the deflector to prevent structural failure of the device. The leading edge of the deflector shall be designed to have a plowing effect of at least 6" depth when the drag head is being operated. Appropriate instrumentation or indicator shall be used and kept in proper calibration to insure the critical "approach angle."

If adjustable depth deflectors are installed, they shall be rigidly attached to the drag head using either a hinged aft attachment point or an aft trunnion attachment point in association with an adjustable pin front attachment point or cable front attachment point with a stop set to obtain the 6" plowing effect. This arrangement allows fine-tuning the 6" plowing effect for varying depths. After the deflector is properly adjusted there shall be NO openings between the deflector and the drag head that are more than 4" by 4".

(8) Training - Personnel on Hopper Dredges: The USACE may, as necessary, conduct thorough training on measures of dredge operation that will minimize takes of sea turtles and Gulf sturgeon. It shall be the goal of each hopper dredging operation to establish operating procedures that are consistent with those that have been used successfully during hopper dredging in other regions of the coastal United States, and which have proven effective in reducing turtle/dredge interactions.

(9) Monitoring Reports: The results of the monitoring shall be recorded on the appropriate observation forms. Observation forms shall include a daily report sheet and a weekly summary sheet. Observation sheets shall be

completed regardless of whether any takes occur. Electronic copies of all data in its original form shall be forwarded to the Mobile District Coastal Environment Team (Attn: Ms. Lekesha Reynolds; fax number 251-690-2727 or e-mail Lekesha.W.Reynolds@usace.army.mil) within 10 days of collection. Copies of forms submitted shall be legible with a minimum of smudges or blackened areas.

f. Sea Turtle and Gulf Sturgeon Trawling and Relocation – Trawling and relocation shall be conducted during Hopper Dredging within Mobile Bay Bar Channel unless otherwise directed by the Contracting Officer Representative. Trawling outside of the Bar Channel is not required unless there is a take. The Contractor shall implement the following Trawling and Relocation conditions:

(1) Trawling Requirements: Relocation trawling shall be conducted to remove sea turtles and Gulf sturgeon from the dredging area(s) during dredging to help prevent entrainment by the dredge. Sea Turtle and Gulf sturgeon Trawling and Relocation, as specified herein, will be at the option and in the discretion of the Government to aid in preventing sea turtle and Gulf sturgeon incidents during dredging operations with the approved turtle deflector in place. Trawling shall begin at least 12 hours prior to dredging. Based on the trawling results, the Government will make a decision on whether or not there is a need to continue trawling. Methods and equipment shall be standardized including data sheets, nets, trawling direction to tide, length of station, length of tow, and number of tows per station. Data on each tow shall be recorded in on Trawling Report form. The trawler shall be equipped with 60-foot nets constructed from 8-inch mesh (stretch) fitted with mud rollers and flats as specified in the Turtle Trawl Nets Specifications appended to the end of this Section. Paired net tows shall be made for 12 hours per day or night, as directed by the Contracting Officer or their appointed representative. The tows shall be performed in shifts, to be determined by the Contracting Officer or their appointed representative. The trawler shall be available for operation 24 hours a day. If two (2) separate trawlers are required, they shall operate side-by-side, as much as practicable. If multiple dredges are utilized, the trawler(s) shall be used for each dredge actively performing dredging operations. If the dredging operations are coordinated so that only one (1) dredge is actively dredging, trawler(s) shall be required for only that dredge. If dredging operations cease for a period of 12 hours or more, relocation trawling shall be conducted for a minimum of 4 hours prior to resuming dredging operations. The trawler(s) shall be positioned ahead of the hopper dredge and as close to the hopper dredge as safely possible to give maximum coverage ahead of the dredging cut. The dredge and trawler(s) shall work closely together to implement techniques and procedures that will minimize the opportunity for turtles and Gulf sturgeon

to enter the dredging path between the trawler(s) and dredge. NOTE: ALL TRAWLING ACTIVITIES, VESSELS AND EQUIPMENT SHALL COMPLY WITH THE CONTRACTOR'S ACCIDENT PREVENTION PLAN AND THE REQUIREMENTS OF EM 385-1-1, U.S. ARMY CORPS OF ENGINEERS SAFETY AND HEALTH REQUIREMENTS MANUAL. Trawling shall be conducted with and against the tidal flow at a speed between 2.5 to 3.5 knots using repetitive 15- to 30-minute (total time) trawls in the work area. Trawl tow-time duration shall not exceed 30 minutes (doors in - doors out) and trawl speeds shall not exceed 3.5 knots. Positions at the beginning and end of each tow shall be determined from the Global Positioning System (GPS) equipment. Tow speed shall be recorded at the approximate midpoint of each tow. Acceptable GPS criteria shall be in accordance with EM 1110-1-1003, paragraph 5.3 and Table 5-1. This EM 1110-1-1003 can be located at the following website: <http://www.publications.usace.army.mil/USACEPublications/EngineerManuals.aspx> or can be purchased directly from the Government Printing Office by calling (202) 512-1800. The postal address is Superintendent of Documents, P. O. Box 371954, Pittsburgh, Pennsylvania 15250-7954 or on line at <http://bookstore.gpo.gov/>.

(2) Water Quality and Physical Measurements: Water temperature measurements shall be taken at the water surface each day using a laboratory thermometer. Weather conditions shall be recorded from visual observations and instruments on the trawler. Weather conditions, air temperature, wind velocity and direction, sea state-wave height, and precipitation shall be recorded on the Trawling Report form. High and low tides shall be recorded.

(3) Approved Sea Turtle Trawling and Relocation Supervisor: Trawling shall be conducted under the supervision of a crewmember that possesses the required permits for handling endangered species, experienced in sea turtle capture or is a NMFS-approved observer. A letter of approval from NMFS shall be provided to the Contracting Officer or their appointed representative prior to commencement of trawling.

(4) Repair and Replacement of Damaged Trawl Nets: The Contractor, at the time of mobilization, shall provide trawl nets, which meet the requirements specified in the Turtle Trawl Net Specifications at the end of this section. Trawl nets that are damaged shall be repaired or replaced by the Contractor at no additional expense to the Government. Tools, supplies and materials for repairing nets shall be kept aboard the trawler. In the event of damage to trawl nets, one hour shall be allowed to either repair or replace them. The Contractor shall have at least one set of replacement nets immediately available at all times, to insure that the dredging work is not adversely delayed due to trawler down-time for

replacing damaged nets. It is recommended that a second set of replacement nets be available aboard the trawler.

(5) Equipment Breakdown: The contractor shall be placed in a non-pay status when trawling equipment breakdown is such that the trawler does not operate during the day. Pay time shall resume when trawling operations recommence.

(6) Suspension of Dredging and Relocation Trawling: Should there be dangerously high seas that would cause the trawler to leave the dredging area when relocation trawling is required, the dredge may continue to operate, as long as no turtles or Gulf sturgeon are taken and subject to the discretion of the Contracting Officer.

(7) Turtle Excluder Devices: Approval for trawling for sea turtles without Turtle Excluder Devices (TEDs) on hopper dredge dragheads must be obtained from NMFS (contact Eric Hawk at 727-551-5773 or Nicole Bonine 727-824-5336). Any necessary State or Federal clearances for the capture and relocation of sea turtles shall also be obtained. Approvals shall be submitted to the Contracting Officer or their appointed representative prior to trawling.

(8) Handling During Trawling: Sea turtles and sturgeon captured pursuant to relocation trawling shall be handled in a manner designed to ensure their safety and viability, and shall be released over the side of the vessel, away from the propeller, and only after ensuring that the vessel's propeller is in the neutral, or disengaged, position (i.e., not rotating). Resuscitation guidelines are located in the Environmental Compliance Appendix.

(9) Captured Turtle and Gulf Sturgeon Holding Conditions: Turtles and Gulf sturgeon may be held briefly for the collection of important scientific measurements, prior to their release. Captured turtles shall be kept moist, and shaded whenever possible, until they are released, according to the requirements below. Captured Gulf sturgeon shall be held in a suitable well-aerated seawater enclosure until they are released according to the requirements below.

(a) Take and Release Time During Trawling - Turtles: Turtles shall be kept no longer than 12 hours prior to release and shall be released not less than three (3) nautical miles (nmi) from the excavation site. If two or more released turtles are later recaptured, subsequent turtle captures shall be released not less than (5) five nautical miles away. If it can be done safely and without injuries to the turtle, turtles may be transferred onto another vessel for transport to the release area to enable the relocation trawler to

keep sweeping the dredge site without interruption. Minor skin abrasions resulting from trawl capture are considered non-injurious. Injured sea turtles shall be immediately transported to the nearest sea turtle rehabilitation facility. Also notify the Coastal Environmental Team, Mobile District, Ms. Lekesha Reynolds by phone at 251-690-3260 office or by email at Lekesha.w.reynolds@usace.army.mil. Observer(s), or their appointed representative(s), shall transport injured turtles to a rehabilitation facility as soon as possible. The NOAA Fisheries-approved turtle transporters shall be used for this purpose.

Mississippi

Institute for Marine Mammal Studies (MMS)
10801 Dolphin Ln, Gulfport, MS 39503,
phone 1-888-767-3657, or 1-228-896-9182
email contactus@imms.org.

FLORIDA (partial list)

Gulf World	Florida's Gulfarium
15412 Front Beach Rd	1010 Miracle Strip Parkway SE
Panama City Beach, FL 32413	Ft. Walton Beach, FL 32548
Tel. 850-234-5271	Tel. 850-243-9046

Emerald Coast Wildlife Rescue
406 Mountain Dr
Destin, FL 32541
Tel. 850-/650-1880

(b) Take and Release Time During Trawling - Gulf Sturgeon: Gulf sturgeon shall be released immediately after capture, away from the dredge site, unless the trawl vessel is equipped with a suitable well-aerated seawater holding tank, container, trough or pool where a maximum of one sturgeon may be held for not longer than 30 minutes before it must be released or relocated away from the dredge site.

(10) Scientific Measurements: When safely possible, all turtles shall be measured (standard carapace measurements including body depth), tagged, weighed, and a tissue sample taken prior to release. When safely possible, all Gulf sturgeon shall be measured (fork length and total length), tagged, weighed, and a tissue sample taken prior to release. Any external tags shall be noted and data recorded onto the Tagging form. Only NMFS approved protected species Observers or Observer candidates in training

under the direct supervision of a NMFS-approved observer shall conduct the tagging/measuring/weighing/tissue sampling operations.

(11) Turtle Flipper External Tagging: All sea turtles captured by relocation trawling shall be flipper-tagged prior to release with external tags which shall be obtained prior to the start of dredging from the University of Florida's Archie Carr Center for Sea Turtle Research. The NMFS-approved protected species observer aboard these relocation trawlers shall flipper-tag with external tags (e.g., Inconel tags) captured sea turtles. Columbus crabs or other organisms living on external sea turtle surfaces may also be sampled and removed.

(12) PIT Tagging: PIT tagging of sea turtles and Gulf sturgeon is not required if the NMFS-approved protected species observer does not have prior training or experience in said activity. However, if the observer has received prior training in PIT tagging procedures, then the observer shall PIT tag the animal prior to release (in addition to the standard external tagging):

(a) Sea turtle PIT tagging must then be performed in accordance with the protocol detailed at NMFS' Southeast Fisheries Science Center's web page:

<http://www.sefsc.noaa.gov/species/turtles/observers.htm>.

(b) Gulf sturgeon PIT tagging must then be performed in accordance with the protocol detailed at the NMFS SERO PRD Web site.

(c) PIT tags used must be sterile, individually wrapped tags to prevent disease transmission. PIT tags should be 125 kHz, glass-encapsulated tags-the smallest ones made.

(13) Other Sampling Procedures: All other tagging and external or internal sampling procedures (e.g., blood letting, laparoscopies, anal and gastric lavages, mounting satellite or radio transmitters, etc.) performed on live sea turtles or live sturgeon are not permitted unless the observer holds a valid sea turtle or sturgeon research permit authorizing this activity, either as the permit holder, or as designated agent of the permit holder.

(14) Trawler Reporting: At the end of each week, a summary detailing the week's relocation trawling (number of tows, details about turtles/sturgeons relocated, etc) shall emailed by the contractor to Ms. Lekesha Reynolds of the Mobile District Coastal Environment Staff at Lekesha.W.Reynolds@usace.army.mil. The results of each trawl shall be recorded on the Trawling Report. Sample forms are provided in Appendix

B. Following completion of the project, an electronic copy of the trawling reports shall be forwarded to Ms. Lekesha Reynolds at: Lekesha.W.Reynolds@usace.army.mil within 10 working days of dredging completion. Copies of the reports shall also be furnished to Ms. Nicole Bonine, National Marine Fisheries Service, by email at Nicole.bonine@noaa.gov.

g. Collateral or "Piggy Back" Research - Hopper Dredging/Trawling Relocation Only: Any sea turtle research activities proposed by the contractor, or outside parties, to be conducted in association with USACE funded actions, including endangered species monitoring, relocation trawling operations, or use of turtles acquired by these operations shall comply with the following general requirements, and any specific requirements developed by the Corps on a case-by-case basis as requests are received:

(1) The USACE shall be given at least 60 days to review and comment on any such research proposals. The point of contact for this review is Dena Dickerson at the Engineer Research and Development Center (ERDC) in Vicksburg MS.

(2) No such research shall be conducted without the express consent of USACE.

(3) The USACE shall be given the opportunity to review and comment on any potential publication or interpretation of resulting data prior to release. The point of contact for this review is Dena Dickerson at the ERDC.

(4) The party or parties conducting the research shall possess a valid research permit pursuant to Section 10 of the Endangered Species Act; and will be responsible for any other Federal, State or local permits or authorizations required, including any requirement of the National Environmental Policy Act (NEPA).

(5) Any injuries, including lethal takes resulting from sea turtle handling activity beyond USACE contract requirements shall be the responsibility of the researcher.

(6) Acknowledgment that the research was conducted with the assistance of USACE shall be included in any resulting publication or report, at the discretion of USACE.

(7) Research activities shall not hinder USACE contracted operations, nor result in any additional cost to the Government;

(8) Research personnel not directly employed by USACE contractors or subcontractors shall not board contracted vessels without signing an appropriate waiver of liability and/or other documents required by USACE.

h. PIT-Tag Scanning - Hopper Dredging/Trawling Relocation Only: All sea turtles and Gulf sturgeon captured by relocation trawling or hopper dredges shall be thoroughly scanned for the presence of PIT tags prior to release using a multi-frequency scanner powerful enough to read multiple frequencies (including 125 128, 134 and 400-kHz tags) and read tags deeply embedded deep in muscle tissue (e.g., manufactured by Trovan, Biomark, or Avid). Turtles whose scans show they have been previously PIT tagged shall be externally flipper tagged. The data collected (PIT tag scan data and external tagging data) shall be submitted to NOAA, NMFS, Southeast Fisheries Science Center, Attn: Lisa Belskis, 75 Virginia Beach Drive, Miami, Florida 33149. All data collected shall be submitted in electronic format within 60 working days to Lisa.Belskis@noaa.gov; and Sheryan.Epperly@noaa.gov. Sea turtle external flipper tag and PIT tag data generated and collected by relocation trawlers shall also be submitted to the Cooperative Marine Turtle Tagging Program (CMTTP), on the appropriate CMTTP form, at the University of Florida's Archie Carr Center for Sea Turtle Research.

Gulf sturgeon data (PIT tag scan data and external tagging data) shall be submitted within 60 days of project completion to NOAA, National Marine Fisheries Service, Protected Resources Division, 263 13th Avenue South, St. Petersburg, Florida 33701, or by fax: (727)824-5309; or by e-mail: takereport.nmfs@noaa.gov, Attn: Dr. Stephania Bolden.

i. Handling Fibropapillomatose Turtles: NMFS-approved protected species observers onboard a relocation trawler or hopper dredges are not required to handle or sample the viral fibropapillomatose tumors if they believe there is a health hazard to themselves and choose not to. When handling sea turtles infected with fibropapilloma tumors shall either: 1) clean all equipment that comes in contact with the turtle (tagging equipment, tape measures, etc.) with mild bleach solution, between the processing of each turtle or 2) maintain a separate set of sampling equipment for handling animals displaying fibropapilloma tumors or lesions.

j. Requirement and Authority to Conduct Tissue sampling for Genetic Analyses - Hopper Dredging/Trawling Relocation Only: All alive or dead sea turtles and Gulf sturgeon captured by relocation trawling or dredging shall be tissue-sampled prior to release by a NMFS-approved protected species observer.

(1) Sea turtle tissue samples shall be taken in accordance with NMFS' Southeast Fisheries Science Centers' (SEFSC) procedures for sea turtle genetic analyses (included in the Environmental Compliance Appendix).

Tissue samples shall be properly stored and mailed within 60 days of completion of dredging project, to NOAA, National Marine Fisheries Service, Southeast Fisheries Science Center, Attn: Lisa Belskis, 75 Virginia Beach Drive, Miami, Florida 33149.

(2) Gulf sturgeon tissue samples (i.e., fin clips or barbel clips) shall be taken in accordance with NMFS SERO's Protected Resources Division's Gulf sturgeon Tissue Sampling Protocol found at NMFS SERO PRD Website. Tissue samples shall be properly stored and mailed to SERO PRD (Attn: Dr. Stephania Bolden) within 60 days of dredging completion.

m. Equipment Lighting: During the sea turtle nesting season and emergence season May 1 to October 31, lighting on offshore or onshore equipment shall be minimized through reduction, shielding, lowering, and appropriate placement to avoid excessive illumination of the water's surface and nesting beach while meeting all Coast Guard, COE EM 385-1-1, and OSHA requirements. Light intensity of lighting plants should be reduced to the minimum standard required by U.S. Coast Guard and/or OSHA for General Construction areas, in order not to misdirect sea turtles. Shields should be affixed to the light housing and be large enough to block light from all lamps from being transmitted outside the construction area.

3.6 PROTECTION OF AIR RESOURCES

All fuel burning equipment shall be properly maintained to prevent violations of State or Federal Air Pollution Standards or interference with inhabitants of the area by causing drastic changes in their accustomed environment. If burning is required, the Contractor should obtain a burning permit from the local fire department, if necessary. Daily inspections will be made of all fuel burning equipment. Immediate corrective action shall be taken if exhaust emissions are found to be excessive.

3.7 MAINTENANCE OF POLLUTION CONTROL FACILITIES DURING DREDGING AND PLACEMENT ACTIVITIES

During the life of this contract, the Contractor shall maintain all facilities constructed for pollution control as long as the operations creating the particular pollutant are being carried out or until the material concerned has become stabilized to the extent that pollution is no longer being created. During the dredging period the Contractor should conduct frequent training courses for his maintenance personnel. The curricula should include methods of detection of pollution, familiarity with pollution standards and measures for prevention or mitigation of environmental pollution.

3.8 SANITATION

The Contractor must provide suitable sanitation devices for the proper storage of all sanitary sewage. The Contractor shall ensure that all floating plant operates according to an approved waste management plan as required by 33 CFR Part 151. The dumping of sanitary sewage effluent and/or solids into the waters surrounding the job is strictly prohibited.

ENVIRONMENTAL COMPLIANCE APPENDIX

Turtle Trawl Net Specifications

Turtle Trawl Net Specifications

DESIGN: 4 Seam, 4 Legged, 2 Bridal Trawl Net

WEBBING: 4 inch bar, 8 inch stretch

Top - 36 Gauge Twisted Nylon Dipped

Side - 36 Gauge Twisted Nylon Dipped

Bottom - 84 Gauge Braided Nylon Dipped

NET LENGTH: 60 ft from cork line to cod end

BODY TAPER: 2 to 1

WING END HEIGHT: 6 feet

CENTER HEIGHT: Dependent on depth of trawl - 14 to 18 feet

COD END: Length 50 meshes x 4 inches equals 16.7 feet

Webbing 2 inch bar, 4 inch stretch, 84 gauge braid nylon

Dipped, 80 meshes around, 40 rigged meshes with $\frac{1}{4}$ x 2
inch choker rings, 1 each $\frac{1}{2}$ x 4 inch at end

Cod End Cover - none

Chaffing Gear - none

HEAD ROPE: 60 ft $\frac{1}{2}$ inch combination rope (braid nylon with
stainless cable center)

FOOT ROPE: 65 ft $\frac{1}{2}$ inch combination rope

LEG LINE: Top - 6 ft, Bottom - 6 ft

FLOATS: Size - Tuna Floats (football style), Diameter - 7
Inches; Length - 9 inches; number 12 each;

Spacing - center of top net 2 inches apart

MUD ROLLERS: Size - 5 inch Diameter, 5.5 inch length

Number - 22 each; spacing - 3 ft attached with $\frac{3}{8}$ inch
Polypropylene rope (replaced with snap on roller when
broken)

TICKLER CHAINS: NONE (Discontinued - but previously used $\frac{1}{4}$
inch x 74 ft galvanized chain)

WEIGHT: 20 ft of $\frac{1}{4}$ inch galvanized chain on each wing, 40 ft
per net looped and tied

DOOR SIZE: 7 ft x 40 inches (or 8 ft x 40 inches); Shoe - 1 inch
X 6 inch: bridles - $\frac{3}{8}$ inch high test chain

CABLE LENGTH: (Bridle Length, Total) : $\frac{7}{16}$ inch x 240-300 ft
varies with bottom conditions

FLOAT BALL: NONE

LAZY LINES: 1 inch nylon

PICKUP LINES: $\frac{3}{8}$ inch polypropylene

WHIP LINES: 1 inch nylon

ODESS System Requirements and Forms

HARDWARE REQUIREMENTS FOR THE ODESS SYSTEM

The dredge shall be equipped and the contractor is responsible for an ODESS hardware system consisting of a tablet computer, wireless keyboard, wireless mouse and data modem (or equivalent onboard internet connection) along with a proper tote bag and setup location for the afore mentioned hardware components. If a hardware problem occurs, or if a part of the system is physically damaged, the Contractor shall be responsible for repairing it within 48 hours of determination of the condition. The contractor shall also keep ODESS personnel updated on the status of the onboard ODESS system and the progress of any repairs.

Computer

The Contractor shall provide a dedicated onboard tablet computer for use by the observers and shall have ODESS software installed on it prior to project initiation. This computer shall be located and oriented to allow data entry and data viewing. It must meet or exceed the following specifications:

Tablet Hardware Component	Specification
CPU	Intel or AMD processor with a (non-overclocked) clock speed of at least 2.4 gigahertz (GHz)
Hard Disk	128 gigabytes (GB); solid state internal storage
RAM	4 gigabytes (GB)
Network Adapter	Internal wired or wireless network hardware to match internet connection
Video Adapter	Support for 1024x768 resolution at 16-bit color depth
Display	>= 10.8 in.
Integrated Camera	2MP HD webcam (front); 8MP (back)
Ports	1 free USB port

Internet Access

The Contractor shall maintain an Internet connection capable of transmitting data to the ODESS database. The telemetry system shall always be available and have connectivity in the contract area. If connectivity is lost, unsent data shall be stored locally within the FC tool and transmitted upon restoration of connectivity. The Contractor shall acquire and install all necessary hardware and software to make the Internet connection available for data transmission to the ODESS database. The hardware and software must be configured to allow remote access to the computer by USACE ODESS personnel. Coordination between

the dredging company's IT and ODESS Support may be required in order to configure remote access through any security, firewall, router, and telemetry systems. Telemetry systems must be capable of meeting these minimum reporting requirements in all operating conditions.

SOFTWARE REQUIREMENTS

ODESS personnel shall be responsible for installing and testing all ODESS software tools on the dedicated onboard ODESS tablet computer. No other software which conflicts with the ODESS function of recording and transmitting data shall be installed on the tablet computer. The Contractor shall be responsible for installing and/or maintaining any necessary manufacturer-provided software for the installed hardware. If any software problem occurs, the Contractor shall contact ODESS Support at ODESS@usace.army.mil or 1-877-840-8024.

The ODESS tablet computer shall have the following minimum software installed in support of the ODESS system:

Software	Specification
Operating System	Windows 10, Contractor-installed
Browser**	Chrome, Internet Explorer, Contractor-installed
ODESS Software	Field Collector (FC) tool, USACE ODESS Support Installed
Remote Access Software	Team Viewer, USACE ODESS Support-installed

**Latest version recommended, Chrome is preferred



**Operations and Dredging Endangered Species System
(ODESS)
USACE Sea Turtle Deflector Checklist for Hopper Dredges
for USACE and USACE/Army-Permitted Projects**

1. Read the contract plans and specs and/or all applicable permits (Dept. of the Army Permit, State Permits) to determine the contract or permit requirements for the protection of endangered sea turtles. (Each District spec or permit may be different.)
2. Read the Biological Opinion and any USACE Protocol, if available.
3. Develop a list of inspection requirements:
 - a. Deflector leading edge angle (90° or less).
 - b. Approach angle or leading edge plowing depth (6" or more).
 - c. Aft rigid attachment of the deflector to the draghead (hinged or trunnion).
 - d. Forward deflector attachment point (adjustable pinned or cable/chain with stop).
 - e. Opening between draghead and deflector (4" x 4" max).
 - f. Dredged material screening requirement (yes/no).
 - g. Screen type requirement (inflow, overflow, or both).
 - h. Inflow basket screen openings (4" x 4" max) and dredged material screening (100%).
 - i. Lighting of the inflow and overflow screens and proper access for cleaning (must meet EM 385-1-1).
 - j. UXO (Unexploded Ordnance) screening in use (yes/no).
 - k. Structural design of the deflector (per the approved deflector submittal).
 - l. Dredge operational requirements (starting/stopping the dredge pump, draghead plugging, raising the draghead, turning the dredge).



- m. Dredging Quality Management (DQM) dredging data recording requirement. Is dredging data recording (drag elevation, slurry density, and velocity) required by specs or permit? If so, is it being collected, is DQM turned on, and is data being submitted?
 - n. Turtle trawling requirement. Is turtle trawling required by specs or permit? If so, is it being performed?
 - o. Turtle observer requirements (12 or 24 hours).
 - p. A copy of the approved turtle deflector submittal is on board the vessel.
 - q. Copies of the contract plans and specs or the Dept. of the Army permit are on board the vessel.
4. Review the turtle deflector submittal. (Do not allow dredging to start until the submittal is approved.)
- a. Structural soundness.
 - b. Deflector leading edge angle (90° or less).
 - c. Approach angles submitted for the project's dredging depths.
 - d. 4" x 4" opening between the deflector and the draghead.
 - e. Aft rigid deflector attachment to draghead (hinged or trunnion).
 - f. Forward deflector attachment point (adjustable pinned or cable/chain with stop).
5. Ensure that the Contractor Quality Control (CQC) performs a pre-dredging inspection. The CQC is required to review and inspect all items in section 3.
6. Ensure that the CQC performs a startup-dredging inspection:
- a. The CQC is required to check the turtle deflector to see if the deflector is installed and adjusted for the required dredge depth of the project in accordance with the approved deflector submittal.
 - b. The CQC is required to ensure that the drag tenders are operating the dredge pump and draghead in accordance with the specs/permit.
 - c. The CQC should perform a paint test to ensure that the deflector is plowing at least 6" into the dredge material while the dragtender is consistently maintaining the submitted and approved approach angle to a tolerance of +0 to -4°.
 - d. The CQC should note the inspection results in the Quality Control (QC) Daily Report.
7. Quality Assurance (QA) should perform a dredging operation inspection soon after the dredge starts dredging:
- a. Review and inspect all items in section 3.

- b. Inspect the turtle deflector to ensure that the deflector is installed and adjusted for the required dredge depth of the project in accordance with the approved deflector submittal.
- c. Require the contractor to perform a paint test to ensure that the deflector is plowing at least 6" into the dredge material while the dragtender is consistently maintaining the submitted and approved approach angle to a tolerance of +0 to -4°. (While over-penetration of the deflector may reduce production and increase fuel consumption of the dredge, it is allowed.)
- d. Ride the dredge through at least one dredging cycle (from dredging to the dump and then back to the dredge site).
- e. Watch the dragtender to ensure that he/she is operating the dredging equipment in accordance with the plans and specs:
 - i Starting the dredge pump only when the draghead is firmly on the bottom by watching the slurry specific gravity and swell compensator.
 - ii Reducing the slurry velocity to the dredge pump idle speed velocity before raising the draghead off the bottom.
 - iii Consistently maintaining the approach angle to a tolerance of +0 to -4° whenever the draghead is on the bottom and the dredge pump is operating
 - iv Raising the draghead off the bottom due to draghead plugging or ship crabbing.
- f. Ensure that the lockout tagout procedure for cleaning the inflow and overflow screens meets EM 385-1-1.
- g. Talk to the turtle observers to ensure that they are aware of contract and permit requirements and that they are inspecting the screens and deflectors and reporting any required maintenance to the dredge personnel. Also ensure that correct turtle observer forms are being used and filled out properly.
- h. Talk to the dredge Captain about maintaining the screens and deflectors.
- i. Ensure that DQM data is being sent to the National Dredging Quality Management Program.
- j. Note all pre-dredge/post-dredge and followup inspections in the QA and the QC Daily Reports.



Operations & Dredging Endangered Species System (ODESS)



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Dredge Load

District	Project	Contract	Dredge	Dredging Company
Load Number (Required)/Date	Start Date (Required)	Start Time (24 hours) (Required)	Stop Date (Required)	Stop Time (24 hours) (Required)
<div> <div> Port Screen Condition <input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Bad </div> <div> Starboard Screen Condition <input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Bad </div> <div> Overflow Screen Condition <input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Bad </div> <div> Inflow Screen Percent <input type="checkbox"/> 25% <input type="checkbox"/> 50% <input type="checkbox"/> 75% <input type="checkbox"/> 100% </div> <div> Overflow Screen Percent <input type="checkbox"/> 25% <input type="checkbox"/> 50% <input type="checkbox"/> 75% <input type="checkbox"/> 100% </div> <div> Other Screen Percent <input type="checkbox"/> 25% <input type="checkbox"/> 50% <input type="checkbox"/> 75% <input type="checkbox"/> 100% </div> <div> # Dragheads Used <input type="text"/> </div> <div> Draghead Length (ft) <input type="text"/> </div> </div> <div> Draghead Width (ft) <input type="text"/> </div> <div> Draghead Type <input type="checkbox"/> California Style <input type="checkbox"/> IHC <input type="checkbox"/> IHC + Water Injection <input type="checkbox"/> Wild Dragon <input type="checkbox"/> Other (Specify) <input type="text"/> </div> <div> Deflector Condition <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> None </div> <div> UXO Screening in Use? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> <div> Material Type <input type="checkbox"/> Clay <input type="checkbox"/> Consolidated Material <input type="checkbox"/> Mud <input type="checkbox"/> Other <input type="checkbox"/> Rock <input type="checkbox"/> Sand - Course <input type="checkbox"/> Sand - Fine <input type="checkbox"/> Sand - Medium <input type="checkbox"/> Sand - Mixed <input type="checkbox"/> Shell <input type="checkbox"/> Silt <input type="checkbox"/> Unknown </div>				

Weather Conditions
☐ Sunny
☐ Cloudy
☐ Partly Cloudy

Beaufort Sea Scale
☐ 0 (0-1 kn, 0-0 ft)
☐ 1 (1-3 kn, 0-1 ft)
☐ 2 (4-6 kn, 1-2 ft)
☐ 3 (6-10 kn, 2-3.5 ft)
☐ 4 (10-16 kn, 3.5-6 ft)
☐ 5 (16-21 kn, 6-9 ft)
☐ 6 (21-27 kn, 9-13 ft)
☐ 7 (27-33 kn, 13-19 ft)
☐ 8 (33-40 kn, 19-25 ft)
☐ 9 (40-47 kn, 25-32 ft)
☐ 10 (47-55 kn, 32-41 ft)
☐ 11 (55-63 kn, 41-52 ft)
☐ 12 (>63 kn, >52 ft)

Wave Height (ft)

Wind Speed (k)

Wind Direction (°)

Tide
☐ High
☐ Low
☐ Slack
☐ Rising
☐ Falling
☐ Unknown

Air Temp (°C)

Surface Water Temp (°C)

Mid-Depth Water Temp (°C)

Bottom Water Temp (°C)

Trawling Being Conducted?
☐ Yes
☐ No

Any Incidents Involving Endangered or Protected Species?
☐ Yes
☐ No

If Yes, Which Species? (Complete a Turtle or Sturgeon Incident form)
☐ Marine Mammal
☐ Sea Turtle
☐ Sturgeon
☐ Other
☐ Unknown

Whale Sighting Notification Received?
☐ Yes
☐ No

Alert Sent to District?
☐ Yes
☐ No

Screen Contents
1 Port Screen
 Contents (incl. # of each item)

2 Starboard Screen
 Contents (incl. # of each item)

3 Overflow Screens
 Contents (incl. # of each item)

4 Other Screen or Location (Specify)

5 Port Draghead
 Contents (incl. # of each item)

6 Starboard Draghead
 Contents (incl. # of each item)

Comments

Observers Used/24 Hours

% Monitoring/Project
☐ None
☐ 25%
☐ 50%
☐ 75%
☐ 100%

Observer(s) Name(s) (Reg. #/int)

Observer(s) Signature(s)

Observer(s) Company

Notes:

- * **Screen Contents**—Examples include sea turtle (sp.), sturgeon (sp.), shark (sp.), ray (sp.), other fish of note (sp.), horseshoe crab, blue crab, other crab species, coral, jellyballs, other species of note, environmental debris, and trash.

ODESS form 1(7) - 071116



Operations & Dredging Endangered Species System (ODESS) Marine Mammal Observation



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District	Project	Contract										
Dredge	Dredging Company	Load Number (Required)/Date										
Start Date (Required)	Start Time (24 hours) (Required)	End Date (Required)	End Time (24 hours) (Required)									
Beaufort Sea State <input type="checkbox"/> 0 (0-1 kn, 0-0 ft) <input type="checkbox"/> 1 (1-3 kn, 0-1 ft) <input type="checkbox"/> 2 (4-6 kn, 1-2 ft) <input type="checkbox"/> 3 (6-10 kn, 2-3.5 ft) <input type="checkbox"/> 4 (10-16 kn, 3.5-6 ft) <input type="checkbox"/> 5 (16-21 kn, 6-9 ft) <input type="checkbox"/> 6 (21-27 kn, 9-13 ft)	<input type="checkbox"/> 7 (27-33 kn, 13-19 ft) <input type="checkbox"/> 8 (33-40 kn, 19-25 ft) <input type="checkbox"/> 9 (40-47 kn, 25-32 ft) <input type="checkbox"/> 10 (47-55 kn, 32-41 ft) <input type="checkbox"/> 11 (55-63 kn, 41-52 ft) <input type="checkbox"/> 12 (>63 kn, >52 ft)	Species Observed (Required) <table border="0"><tr><td><input type="checkbox"/> Bryde's/Sei Whale # _____ Est. Length (ft.) _____</td><td><input type="checkbox"/> Manatee # _____ Est. Length (ft.) _____</td><td><input type="checkbox"/> Right Whale # _____ Est. Length (ft.) _____</td></tr><tr><td><input type="checkbox"/> Fin Whale # _____ Est. Length (ft.) _____</td><td><input type="checkbox"/> Minke Whale # _____ Est. Length (ft.) _____</td><td><input type="checkbox"/> Unknown # _____ Est. Length (ft.) _____</td></tr><tr><td><input type="checkbox"/> Humpback Whale # _____ Est. Length (ft.) _____</td><td><input type="checkbox"/> Pilot Whale # _____ Est. Length (ft.) _____</td><td></td></tr></table>		<input type="checkbox"/> Bryde's/Sei Whale # _____ Est. Length (ft.) _____	<input type="checkbox"/> Manatee # _____ Est. Length (ft.) _____	<input type="checkbox"/> Right Whale # _____ Est. Length (ft.) _____	<input type="checkbox"/> Fin Whale # _____ Est. Length (ft.) _____	<input type="checkbox"/> Minke Whale # _____ Est. Length (ft.) _____	<input type="checkbox"/> Unknown # _____ Est. Length (ft.) _____	<input type="checkbox"/> Humpback Whale # _____ Est. Length (ft.) _____	<input type="checkbox"/> Pilot Whale # _____ Est. Length (ft.) _____	
<input type="checkbox"/> Bryde's/Sei Whale # _____ Est. Length (ft.) _____	<input type="checkbox"/> Manatee # _____ Est. Length (ft.) _____	<input type="checkbox"/> Right Whale # _____ Est. Length (ft.) _____										
<input type="checkbox"/> Fin Whale # _____ Est. Length (ft.) _____	<input type="checkbox"/> Minke Whale # _____ Est. Length (ft.) _____	<input type="checkbox"/> Unknown # _____ Est. Length (ft.) _____										
<input type="checkbox"/> Humpback Whale # _____ Est. Length (ft.) _____	<input type="checkbox"/> Pilot Whale # _____ Est. Length (ft.) _____											
Air Temp (°C)	Water Temp (°C)	Winds (K)	Seas (ft)	Cloud Cover (%)								
Magnetic Bearing to Sighting	Estimated Distance	Vessel's Heading	Heading of Animal(s)									
Coloration	Fins or Flippers Observed											
Behaviors Observed			Surfacing Intervals Time									
			Surfacing Intervals Distance									
Comments (Was the behavior of the animal(s) affected by the vessel? How far did the animal(s) move? Who was notified?)												
Observer(s) Name(s) (Required; Print)	Observer(s) Signature(s)	Observer(s) Company										

ODESS Form 4(7) - 071116




Operations & Dredging Endangered Species System (ODESS) Sturgeon Incident




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District <input type="text"/>	Project <input type="text"/>	Contract <input type="text"/>
Dredge <input type="text"/>	Dredging Company <input type="text"/>	<u>Species (Required)</u> <input type="checkbox"/> Atlantic <input type="checkbox"/> Gulf <input type="checkbox"/> Unknown <input type="checkbox"/> Green <input type="checkbox"/> Shortnose
<u>Load Number (Required)/Date</u> <input type="text"/>	<u>Recovery Date (Required)</u> <input type="text"/>	<u>Recovery Time (24 hours) (Required)</u> <input type="text"/>
<u>Incident/Take Description</u> <input type="text"/> <input type="text"/> <input type="text"/>		
<u>Location Specimen Recovered</u> <input type="checkbox"/> Deck <input type="checkbox"/> Hopper <input type="checkbox"/> Draghead <input type="checkbox"/> Overflow Screen (Circle one) <input type="checkbox"/> Inflow Cage (Circle one) Starboard/Port/Other <input type="checkbox"/> Pipe	<u>Specimen Condition</u> <input type="checkbox"/> Alive <input type="checkbox"/> Severely Decomposed <input type="checkbox"/> Dead <input type="checkbox"/> Skeleton <input type="checkbox"/> Fresh Dead <input type="checkbox"/> Skeleton Old Bone <input type="checkbox"/> Moderately Decomposed <input type="checkbox"/> Undetermined	<u>Rows of Preanal Shields (SSN = 1/ATL = 2)</u> <input type="text"/>
<u>Location Comment</u> <input type="text"/> <input type="text"/>		
# Dorsal Scutes (SSN = 8-13/ATL = 7-16) <input type="text"/>	# Lateral Scutes (SSN = 22-33/ATL = 24-35) <input type="text"/>	# Ventral Scutes (SSN = 7-11/ATL = 6-9) <input type="text"/>
Fork Length (cm/in) <input type="text"/>	Standard Length (cm/in) <input type="text"/>	Total Length (cm/in) <input type="text"/>
Mouth Width (cm/in) <input type="text"/>	Head Width at Eyes (cm/in) <input type="text"/>	Other (cm/in) <input type="text"/>
<u>Genetic Samples Taken?</u> <input type="checkbox"/> Yes <input type="checkbox"/> No	<u>Samples Frozen/Preserved?</u> <input type="checkbox"/> Yes <input type="checkbox"/> No	<u>Photo Attached?</u> (If Yes, label the species, date, geographic site, and dredge name on the photo) <input type="checkbox"/> Yes <input type="checkbox"/> No
<u>Comments</u> <input type="text"/> <input type="text"/> <input type="text"/>		

Use these diagrams to illustrate the specimen/part that was recovered.



Observer(s) Name(s) (Required; Print)



Observer(s) Signature(s)

Observer(s) Company

ODESS Form 3(6)-071116



Operations & Dredging Endangered Species System (ODESS) Turtle Incident



US Army Corps
of Engineers

District <input type="text"/>	Project <input type="text"/>	Contract <input type="text"/>
Dredge <input type="text"/>	Dredging Company <input type="text"/>	Species (Required) <input type="checkbox"/> Green <input type="checkbox"/> Hawksbill <input type="checkbox"/> Kemp's Ridley <input type="checkbox"/> Leatherback <input type="checkbox"/> Loggerhead <input type="checkbox"/> Unknown
Load Number (Required)/Date <input type="text"/>	Is this a Take? (Required) <input type="checkbox"/> Yes <input type="checkbox"/> No	Project Incident # (Required) <input type="text"/>
Recovery Date (Required) <input type="text"/>	Recovery Time (24 hours) (Required) <input type="text"/>	Incident/Take Description <div style="border: 1px solid black; height: 100px;"></div>
Air Temp (°C) <input type="text"/>	Surface Water Temperature (°C) <input type="text"/>	
Mid-Depth Water Temperature (°C) <input type="text"/>	Bottom Water Temperature (°C) <input type="text"/>	
Location Specimen Recovered <input type="checkbox"/> Deck <input type="checkbox"/> Draghead <input type="checkbox"/> Inflow Cage (Circle one) Starboard/Port/Other		
Location Comment <div style="border: 1px solid black; height: 30px;"></div>		Age Class <input type="checkbox"/> Juvenile (10, 1-80 cm) <input type="checkbox"/> Sub-Adult (80, 1-87 cm) <input type="checkbox"/> Adult (>87 cm) <input type="checkbox"/> Unknown
How Gender Determined <input type="checkbox"/> Tail Length <input type="checkbox"/> Eggs Observed <input type="checkbox"/> Other <input type="text"/>		Gender <input type="checkbox"/> Female <input type="checkbox"/> Male <input type="checkbox"/> Unknown
Tag Type <input type="checkbox"/> Flipper <input type="checkbox"/> Pit <input type="checkbox"/> Other (Specify) <input type="text"/>		Specimen Condition <input type="checkbox"/> Alive <input type="checkbox"/> Dead <input type="checkbox"/> Fresh Dead <input type="checkbox"/> Moderately Decomposed <input type="checkbox"/> Severely Decomposed <input type="checkbox"/> Skeleton <input type="checkbox"/> Skeleton Old Bone <input type="checkbox"/> Undetermined
Tag Number <input type="text"/>	Head Width (cm/in) <input type="text"/>	Photo Attached? (If Yes, label the species, date, geographic site, and dredge name on the photo) <input type="checkbox"/> Yes <input type="checkbox"/> No
Tag Date <input type="text"/>	Plastron Length (cm/in) <input type="text"/>	
	Plastron Width (cm/in) <input type="text"/>	
Genetic Samples Taken? <input type="checkbox"/> Yes <input type="checkbox"/> No	Carapace Straight Length (cm/in) <input type="text"/>	Carapace Curved Length (cm/in) <input type="text"/>
	Carapace Straight Width (cm/in) <input type="text"/>	Carapace Curved Width (cm/in) <input type="text"/>
Final Disposition of Specimen <input type="text"/>		
Use these diagrams to illustrate the specimen/part that was recovered.		
		Comments <div style="border: 1px solid black; height: 100px;"></div>
Observer(s) Name(s) (Required; Print) <div style="border: 1px solid black; height: 40px;"></div>		
Observer(s) Signature(s) <div style="border: 1px solid black; height: 40px;"></div>		Observer(s) Company <div style="border: 1px solid black; height: 40px;"></div>

ODESS Form 2(6) - 071116

[illegible]

Cooperative Marine Turtle Tagging Program (CMTTP) Tagging Data Form

**COOPERATIVE MARINE TURTLE TAGGING PROGRAM (CMTTP)
TAGGING DATA FORM**

SPECIES: _____	DATE CAPTURED: DAY _____	MO _____	YR _____	DATE RELEASED: DAY _____	MO _____	YR _____
TAG NUMBERS (LIST ALL NUMBERS AND LETTER PREFIXES; CIRCLE TAG NUMBERS ALREADY ON THE TURTLE [= "OLD TAGS"]):						
LEFT FRONT: _____	RIGHT FRONT: _____	LEFT REAR: _____	RIGHT REAR: _____			
PIT TAG #: _____			LOCATION OF PIT TAG: _____			
WAS TURTLE CARRYING TAGS WHEN ENCOUNTERED?:		YES	NO	IF YES, THEN CIRCLE CORRECT STATEMENT:		
1. RECAPTURE OF SAME PROJECT TURTLE (EITHER WITHIN SEASON OR BETWEEN SEASONS)						
2. RECAPTURE OF DIFFERENT PROJECT TURTLE (NOT A TAG YOUR GROUP APPLIED)						
TAG RETURN ADDRESS:						
ORGANIZATION TAGGING AND/OR RELEASING TURTLE (INCLUDE AREA CODE/PHONE NUMBER; AND EMAIL):						
PROJECT TYPE (CIRCLE ONE):						
[NESTING BEACH]	[TANGLE NET]	[POUND NET]	[HAND CATCH]	[STRANDING]	[OTHER, DESCRIBE]	
IF NESTING BEACH: DID TURTLE NEST?		YES	NO	UNDETERMINED		
FACILITY WHERE TURTLE WAS BEING HELD:						
DESCRIBE CAPTURE LOCATION. BE SPECIFIC, INCLUDE COUNTY AND LAT/LONG IF AVAILABLE						
DESCRIBE RELEASE LOCATION. BE SPECIFIC, INCLUDE COUNTY AND LAT/LONG IF AVAILABLE.						
TURTLE MEASUREMENTS:						
STRAIGHT CARAPACE LENGTH (SCLMINIMUM):		_____ CM	_____ INCHES			
STRAIGHT CARAPACE LENGTH (SCLNOTCH-TIP):		_____ CM	_____ INCHES			
STRAIGHT CARAPACE WIDTH (SCW):		_____ CM	_____ INCHES			
CURVED CARAPACE LENGTH (CCLMINIMUM):		_____ CM	_____ INCHES			
CURVED CARAPACE LENGTH (CCLNOTCH-TIP):		_____ CM	_____ INCHES			
CURVED CARAPACE WIDTH (CCW):		_____ CM	_____ INCHES			
WEIGHT:		_____ KG	_____ LBS			
TURTLE WAS INSPECTED AND/OR SCANNED FOR:						
TAG SCARS:	YES	NO	WHERE LOCATED?			
PIT TAGS:	YES	NO	WHAT FREQUENCY?			
MAGNETIC WIRES:	YES	NO	WHERE LOCATED?			
LIVING TAGS:	YES	NO	WHERE LOCATED?			
ADDITIONAL REMARKS OR DATA ON BACK OF FORM:			YES	NO		
<p align="center">MAIL COMPLETED FORM TO: ARCHIE CARR CENTER FOR SEA TURTLE RESEARCH, DEPARTMENT OF ZOOLOGY, PO Box 118525 UNIVERSITY OF FLORIDA, GAINESVILLE, FL 32611 USA and SCDNR Marine Turtle Program, PO Box 12559, Charleston, SC 29422</p>						

Protocol for Collecting Tissue from Live and Dead Turtles for Genetic Analysis

Appendix II:

PROTOCOL FOR COLLECTING TISSUE FROM DEAD TURTLES FOR GENETIC ANALYSIS

Method for Dead Turtles

<<<IT IS CRITICAL TO USE A NEW SCALPEL BLADE AND GLOVES FOR EACH TURTLE TO AVOID
CROSS-CONTAMINATION OF SAMPLES>>>

1. Put on a new pair of latex gloves.
2. Use a new disposable scalpel to cut out an approx. 1 cm (½ in) cube (bigger is NOT better) piece of muscle. Easy access to muscle tissue is in the neck region or on the ventral side where the front flippers "insert" near the plastron. It does not matter what stage of decomposition the carcass is in.
3. Place the muscle sample on a hard uncontaminated surface (plastron will do) and make slices through the sample so the buffer solution will penetrate the tissue.
4. Put the sample into the plastic vial containing saturated NaCl with 20% DMSO *(SEE BELOW)
5. Use the pencil to write the stranding ID number (observer initials, year, month, day, turtle number by day), species, state and carapace length on the waterproof paper label and place it in the vial with the sample.
EXAMPLE: For a 35.8 cm curved carapace length green turtle documented by Jane M. Doe on July 15, 2001 in Georgia, the label should read "JMD20010715-01, C. mydas, Georgia, CCL=35.8 cm". If this had been the third turtle Jane Doe responded to on July 15, 2001, it would be JMD20010715-03.
6. Label the outside of the vial with the same information (stranding ID number, species, state and carapace length) using the permanent marker.
7. Place clear scotch tape over the writing on the vial to protect it from being smeared or erased.
8. Wrap parafilm around the cap of the vial by stretching it as you wrap.
9. Place vial within whirlpak and close.
10. Dispose of the scalpel.
11. Note on the stranding form that a part was salvaged, indicating that a genetic sample was taken and specify the location on the turtle where the sample was obtained.
12. Submit the vial with the stranding report to your state coordinator. State coordinators will forward the reports and vials to NMFS for processing and archiving.

*The 20% DMSO buffer in the plastic vials is nontoxic and nonflammable. Handling the buffer without gloves may result in exposure to DMSO. This substance soaks into skin very rapidly and is commonly used to alleviate muscle aches. DMSO will produce a garlic/oyster taste in the mouth along with breath odor. The protocol requires that you WEAR gloves each time you collect a sample and handle the buffer vials.

The vials (both before and after samples are taken) should be stored at room temperature or cooler. If you don't mind the vials in the refrigerator, this will prolong the life of the sample. DO NOT store the vials where they will experience extreme heat (like in your car!) as this could cause the buffer to break down and not preserve the sample properly.

Questions:

Sea Turtle Program
NOAA/NMFS/SEFSC
75 Virginia Beach Drive
Miami, FL 33149
305-361-4207

THANK YOU FOR COLLECTING SAMPLES FOR SEA TURTLE GENETIC RESEARCH!!

Genetic Sample Kit Materials – DEAD turtles

- latex gloves
- single-use scalpel blades (Fisher Scientific 1-800-766-7000, cat. # 08-927-5A)
- plastic screw-cap vial containing saturated NaCl with 20% DMSO, wrapped in parafilm
- waterproof paper label, 1/4" x 4"
- pencil to write on waterproof paper label
- permanent marker to label the plastic vials
- scotch tape to protect writing on the vials
- piece of parafilm to wrap the cap of the vial
- whirl-pak to return/store sample vial

Appendix III:

PROTOCOL FOR COLLECTING TISSUE FROM LIVE TURTLES FOR GENETIC ANALYSIS

Method for Live Turtles

<<<IT IS CRITICAL TO USE A NEW BIOPSY PUNCH AND GLOVES FOR EACH TURTLE TO AVOID CROSS-CONTAMINATION OF SAMPLES>>>

1. Turn the turtle over on its back.
2. Put on a new pair of latex gloves.
3. Swab the entire cap of the sample vial with alcohol.
4. Wipe the ventral and dorsal surfaces of the rear flipper 5-10 cm from the posterior edge with the Betadine/iodine swab.
5. Place the vial under the flipper edge to use the cleaned cap as a hard surface for the punch.
6. Press a new biopsy punch firmly into the flesh as close to the posterior edge as possible and rotate one complete turn. Cut all the way through the flipper to the cap of the vial.
7. Wipe the punched area with Betadine/iodine swab; rarely you may need to apply pressure to stop bleeding.
8. Use a wooden skewer to transfer the sample from the biopsy punch into the plastic vial containing saturated NaCl with 20% DMSO *(SEE BELOW)
9. Use the pencil to write the stranding ID number (observer initials, year, month, day, turtle number by day), species, state and carapace length on the waterproof paper label and place it in the vial with the sample.
EXAMPLE: For a 35.8 cm curved carapace length green turtle documented by Jane M. Doe on July 15, 2001 in Georgia, the label should read "JMD20010715-01, *C. mydas*, Georgia, CCL=35.8 cm". If this had been the third turtle Jane Doe responded to on July 15, 2001, it would be JMD20010715-03.
10. Label the outside of the vial with the same information (stranding ID number, species, state and carapace length) using the permanent marker.
11. Place clear scotch tape over the writing on the vial to protect it from being smeared or erased.
12. Wrap parafilm around the cap of the vial by stretching it as you wrap.
13. Place vial within whirlpak and close.
14. Dispose of the biopsy punch.
15. Note on the stranding form that a part was salvaged, indicating that a genetic sample was taken and specify the location on the turtle where the sample was obtained.
16. Submit the vial with the stranding report to your state coordinator. State coordinators will forward the reports and vials to NMFS for processing and archiving.

*The 20% DMSO buffer in the plastic vials is nontoxic and nonflammable. Handling the buffer without gloves may result in exposure to DMSO. This substance soaks into skin very rapidly and is commonly used to alleviate muscle aches. DMSO will produce a garlic/oyster taste in the mouth along with breath odor. The protocol requires that you WEAR gloves each time you collect a sample and handle the buffer vials.

The vials (both before and after samples are taken) should be stored at room temperature or cooler. If you don't mind the vials in the refrigerator, this will prolong the life of the sample. DO NOT store the vials where they will experience extreme heat (like in your car!) as this could cause the buffer to break down and not preserve the sample properly.

Questions:

Sea Turtle Program
NOAA/NMFS/SEFSC
75 Virginia Beach Drive
Miami, FL 33149
305-361-4207

THANK YOU FOR COLLECTING SAMPLES FOR SEA TURTLE GENETIC RESEARCH!!

Genetic Sample Kit Materials – LIVE turtles

- latex gloves
- alcohol swabs
- Betadine/iodine swabs
- 4-6 mm biopsy punch – sterile, disposable (Moore Medical Supply 1-800-678-8678, part #0052442)
- plastic screw-cap vial containing saturated NaCl with 20% DMSO, wrapped in parafilm
- wooden skewer
- waterproof paper label, 1/4" x 4"
- pencil to write on waterproof paper label
- permanent marker to label the plastic vials
- scotch tape to protect writing on the vials
- piece of parafilm to wrap the cap of the vial
- whirl-pak to return/store sample vial



Sea Turtle Handling and Resuscitation Guidelines

Appendix IV: SEA TURTLE HANDLING AND RESUSCITATION GUIDELINES

Any sea turtles taken incidentally during the course of fishing or scientific research activities must be handled with due care to prevent injury to live specimens, observed for activity, and returned to the water according to the following procedures:

A) Sea turtles that are actively moving or determined to be dead (as described in paragraph (B)(4) below) must be released over the stern of the boat. In addition, they must be released only when fishing or scientific collection gear is not in use, when the engine gears are in neutral position, and in areas where they are unlikely to be recaptured or injured by vessels.

B) Resuscitation must be attempted on sea turtles that are comatose or inactive by:

1. Placing the turtle on its bottom shell (plastron) so that the turtle is right side up and elevating its hindquarters at least 6 inches (15.2 cm) for a period of 4 to 24 hours. The amount of elevation depends on the size of the turtle; greater elevations are needed for larger turtles. Periodically, rock the turtle gently left to right and right to left by holding the outer edge of the shell (carapace) and lifting one side about 3 inches (7.6 cm) then alternate to the other side. Gently touch the eye and pinch the tail (reflex test) periodically to see if there is a response.
2. Sea turtles being resuscitated must be shaded and kept damp or moist but under no circumstance be placed into a container holding water. A water-soaked towel placed over the head, carapace, and flippers is the most effective method in keeping a turtle moist.
3. Sea turtles that revive and become active must be released over the stern of the boat only when fishing or scientific collection gear is not in use, when the engine gears are in neutral position, and in areas where they are unlikely to be recaptured or injured by vessels. Sea turtles that fail to respond to the reflex test or fail to move within 4 hours (up to 24, if possible) must be returned to the water in the same manner as that for actively moving turtles.
4. A turtle is determined to be dead if the muscles are stiff (rigor mortis) and/or the flesh has begun to rot; otherwise, the turtle is determined to be comatose or inactive and resuscitation attempts are necessary.

Any sea turtle so taken must not be consumed, sold, landed, offloaded, transshipped, or kept below deck.

These guidelines are adapted from 50 CFR § 223.206(d)(1). Failure to follow these procedures is therefore a punishable offense under the Endangered Species Act.

Online Resources

REFERENCE THE GRBO AND REVISIONS ONLINE AT:

http://sero.nmfs.noaa.gov/protected_resources/section_7/freq_biop/documents/dredge_bo/nov_19_2003_gom_rbo.pdf

http://sero.nmfs.noaa.gov/protected_resources/section_7/freq_biop/documents/dredge_bo/f13976_02187-sad_grbo_revision_1.pdf

http://sero.nmfs.noaa.gov/protected_resources/section_7/freq_biop/documents/dredge_bo/f13817_revision_2_grbo.pdf

Water Quality and Coastal Zone Consistency Certifications

LANCE R. LEFLEUR
DIRECTOR



Alabama Department of Environmental Management
adem.alabama.gov
1400 Coliseum Blvd. 36110-2400 ■ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ■ FAX (334) 271-7950

ROBERT J. BENTLEY
GOVERNOR

March 9, 2017

Mr. Curtis M. Flakes, Chief
Planning and Environmental Division
Department of the Army
Mobile District, Corps of Engineers
Post Office Box 2288
Mobile, AL 36628-0001

RE: State of Alabama Concurrence with the U.S. Army Corps of Engineers' Coastal Consistency Determination
Mobile Harbor Federal Navigation Project
U.S. Army Corps of Engineers (USACE) Joint Public Notice: FP16-MH01-04
Alabama Department of Environmental Management (ADEM) Tracking Code: 2017-181-FC-FAA-COEP

Dear Mr. Flakes:

The ADEM received the USACE's consistency determination - required by Title 15CFR Subpart C - on January 4, 2017. Pursuant to Title 15CFR §930.41 and based upon review of the information submitted by the USACE, by this letter the ADEM hereby notifies the USACE of its concurrence with the USACE's consistency determination.

Should the proposed activity be modified, a revised consistency determination may be necessary pursuant to Title 15CFR 930.46. Contact the Mobile-Coastal office anytime with questions. Always include the ADEM tracking code above when corresponding on this matter.

Sincerely,

Anthony Scott Hughes, Chief
Field Operations Division

ASH/jsb/cap

File: CZCERT/46024

cc: Larry Parson, USACE (Sent Via Email Only: larry.e.parson@usace.army.mil)
Rosemary Hall, EPA (Sent Via Email Only: Hall.Rosemary@epamail.epa.gov)
Josh Rowell, USFWS (Sent Via Email Only: Josh_Rowell@fws.gov)
Mark Thompson, NMFS (Sent Via Email Only: Mark.Thompson@noaa.gov)
Carl Ferraro, ADCNR (Sent Via Email Only: Carl.Ferraro@dcnr.alabama.gov)
Phillip Hinesley, ADCNR (Sent Via Email Only: Phillip.Hinesley@dcnr.alabama.gov)

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)



Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
3664 Dauphin Street, Suite B
Mobile, AL 36608
(251) 304-1176
(251) 304-1189 (FAX)

LANCE R. LEFLEUR
DIRECTOR



Alabama Department of Environmental Management
adem.alabama.gov

1400 Coliseum Blvd. 36110-2400 ■ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ■ FAX (334) 271-7950

ROBERT J. BENTLEY
GOVERNOR

March 9, 2017

Mr. Curtis M. Flakes, Chief
Planning and Environmental Division
Department of the Army
Mobile District, Corps of Engineers
Post Office Box 2288
Mobile, AL 36628-0001

RE: State of Alabama Water Quality Certification (WQC) Pursuant to Clean Water Act (CWA) §401(a)
Mobile Harbor Federal Navigation Project
U.S. Army Corps of Engineers (USACE) Joint Public Notice: FP16-MH01-04
Alabama Department of Environmental Management (ADEM) Tracking Code: 2017-181-WQC-COEP

Dear Mr. Flakes:

The ADEM received a copy of the USACE's joint public notice on January 4, 2017 and has completed its review of all submitted materials related to the USACE's proposal to continue with operations and maintenance of the Mobile Harbor Navigation Project as previously described in Public Notice Numbers FP86-MH06-2, FP91-MH07-4, FP95-MH07-2, FP97-MH08-02, FP97-MH09-02, FP11-MH01-06, and FP14-MH01-10.

Action pertinent to WQC is required by CWA §401(a)(1), 33 U.S.C. §1251, *et. seq.* If conducted in accordance with the conditions prescribed herein, there is reasonable assurance that the discharge resulting from the approved activity will not violate applicable water quality standards established under §303 of the CWA and §22-22-9(g), *Code of Alabama* (1975). By this letter, the ADEM notifies the USACE that CWA §401 WQC is hereby **granted**. This WQC terminates coincidentally with the expiration of FP16-MH01-04. This WQC only addresses potential discharges to state waters resulting from activities proposed in the USACE's application. This WQC does not negate the USACE's responsibility to acquire all other needed permits nor does this WQC, in any way, imply that the proposed activities comply with the requirements of any other jurisdictional entity nor does it imply that the project can or will be approved by any other jurisdictional entity. ADEM certifies that there are no applicable effluent limitations under §301 and §302 nor applicable standards under §306 and §307 of the CWA in regard to the activities specified.

In recognition that projects are site specific in nature and conditions can change during project implementation, the ADEM reserves the right to request additional information or request additional management measures to be implemented, as necessary on a case-by-case basis, in order to ensure the protection of water quality and coastal resources. Deviation from the approved project design may necessitate additional coordination.

This WQC does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, trespass, or any infringement of Federal, State, or local laws or regulations and in no way purports to vest in the USACE title to lands now owned by the State of Alabama nor shall it be construed as acquiescence by the State of Alabama of lands owned by the State that may be in the USACE's possession. This concurrence is not transferable without prior written notice and approval of the ADEM. Upon such notice, the Director may require submission of additional information.

To protect water quality, the following conditions must be incorporated as part of FP16-MH01-04:

1. The USACE and/or its assigns shall implement appropriate best management practices (BMPs) to minimize turbidity impacts to the maximum extent practicable. Turbidity generated by the activity must not cause substantial visible contrast nor result in an increase of more than fifty (50) Nephelometric turbidity units (NTU) above background in state waters.
2. Upon the loss or failure of any treatment facility, BMP, or other management control measure as identified by responsible on-site staff during day to day construction operations or as identified by ADEM technical staff during facility inspections, the USACE and/or its assigns shall, where necessary to maintain compliance with this WQC, suspend, cease, reduce, or otherwise control work/activity and all discharges until effective treatment is restored and immediately notify the ADEM Mobile-Coastal office at (251) 304-1176 of resultant work stoppage.

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)



Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

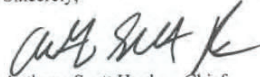
Mobile-Coastal
3664 Dauphin Street, Suite B
Mobile, AL 36608
(251) 304-1176
(251) 304-1189 (FAX)

U.S. Army Corps of Engineers
2017-181-WQC-COEP
Page 2 of 2

3. The USACE and/or its assigns are responsible for the condition of the spoil disposal areas for the life of the placement activity and until the disposal areas are reclaimed or adequately stabilized, and for pumping and discharge rates to ensure settling of suspended solids within the confines of the spoil disposal areas sufficient to ensure that turbidity in the return water will not cause substantial visible contrast within the receiving waters, or result in an increase of 50 NTUs above background turbidity levels in the receiving waters.

Contact the Mobile-Coastal office anytime with questions. Always include the ADEM tracking code above when corresponding on this matter.

Sincerely,



Anthony Scott Hughes, Chief
Field Operations Division

ASH/jsb/cap

File: 401WQ/46024

cc: Larry Parson, USACE (Sent Via Email Only: larry.e.parson@usace.army.mil)
Rosemary Hall, EPA (Sent Via Email Only: Hall.Rosemary@epamail.epa.gov)
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Mark Thompson, NMFS (Sent Via Email Only: Mark.Thompson@noaa.gov)
Carl Ferraro, ADCNR (Sent Via Email Only: Carl.Ferraro@dcnr.alabama.gov)
Phillip Hinesley, ADCNR (Sent Via Email Only: Phillip.Hinesley@dcnr.alabama.gov)

Letter from U.S. Fish and Wildlife Service



United States Department of the Interior

FISH AND WILDLIFE SERVICE
1208-B Main Street
Daphne, Alabama 36526

IN REPLY REFER TO:

2012-I-0311

JAN 18 2017

LeKesha W. Reynolds
Chief, Coastal Environmental Team
U.S. Army Engineer District Mobile
P.O. Box 2288
Mobile, AL 36628-0001

Dear Ms. Reynolds:

This is the report of the U.S. Fish and Wildlife Service (Service), concerning your letter of December 23, 2016 and public notice FP16-MH01-04, in which the U.S. Army Corps of Engineers (Corps), Mobile District is proposing continued maintenance dredging and disposal effort for the Mobile Harbor Federal Navigation Project, Mobile County, Alabama. The Mobile Harbor Project is divided into three general areas: the river channel section, the bay channel section, and the bar channel section. The river channel section involves the continued maintenance dredging (1.2 mcy annually) and placement of material from the mouth of the Mobile River to the Cochrane Bridge, approximately four miles. The River channel would be dredged to a total depth of 40 feet plus two feet of advanced maintenance and two feet of allowable overdepth dredging. The bay channel section extends 29 miles from near the mouth of Mobile Bay to the mouth of the Mobile River. Approximately 4.3 mcy of material would be removed annually to a depth of 45 feet plus two feet of advanced maintenance and two feet of allowable overdepth dredging. The bar channel section extends eight miles from the Gulf of Mexico to Mobile Bay. Approximately 300,000 cubic yards of material would be removed annually to a total depth of 47 feet plus two feet of advanced maintenance and two feet of allowable overdepth dredging.

Dredged material is proposed to be removed from the channels by dragline/clamshell, hydraulic pipeline and/or hopper dredge, and all material would be placed in previously approved upland disposal sites. We understand that in the event where emergency dredging activities are required; the Corps is proposing to use Galliard Island in addition to the other disposal areas. The emergency option would be necessary when there is insufficient hopper dredge capability to meet these increased needs. Material placed on Galliard Island would only occur in accordance with the Migratory Bird Treaty Act and any associated regulatory agency agreements. Following are the Service comments concerning this federal project as it relates to the Marine Mammal Protection Act of 1972 ((16 U.S.C. 1361-1407), and the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 Cr.S.C. 1531 et seq.).

Your letter states that where hopper dredging equipment will be used for the project the Corps will adhere to the Regional Biological Opinion (RBO) for Dredging of Gulf of Mexico

PHONE: 251-441-5181

FAX: 251-441-6222

Ms. LeKesha W. Reynolds

2

Navigation Channels and Sand Mining Areas Using Hopper Dredges by COE Galveston, New Orleans, Mobile, and Jacksonville Districts (Consultation Number F/SER/2000/01287). Therefore, by strictly adhering to the conditions of the RBO, we believe that adverse impacts to sea turtles during the dredging and disposal operation will be minimal.

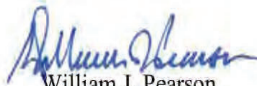
Gulf sturgeon (*Acipenser oxyrinchus desotoi*), particularly juveniles, may be affected by dredging impacts on water quality or food availability, or by direct physical contact. If the following condition is implemented we believe that there will be no adverse impact and formal consultation will not be required. If a Gulf sturgeon is observed, halt operations until the species has left the area. If this step cannot be exercised or there is an occurrence of collision with and/or injury to a sturgeon as a result of the proposed project, then work should cease and further consultation with this office should be undertaken. We request that the Corps report to this office any observation of a sturgeon within the area during project operations.

The Service is also concerned about the potential indirect or direct physical impact on endangered Florida manatees (*Trichechus manatus latirostris*) which may be migrating through the project area during the proposed construction operation. Direct impacts could occur from boat, barge, dredge operation or other construction activities. Because manatees are known to seasonally occur near the area slated for dredging, and could be affected by this activity, we believe that this project, as described, may affect the manatee.

The Corps has historically agreed to implement the "Standard Manatee Construction Conditions" that were referred to in your letter. The Service believes that if these conditions are implemented then there will be no adverse impact to the manatee and formal consultation will not be required. If these steps cannot be exercised or there is an occurrence of collision with and/or injury to a manatee as a result of the proposed project, then further consultation with this office should be undertaken. We request that any observation of a manatee within the area during project operations be reported to this office.

Based on the information provided, and review of our records, we concur with your determination that this project may affect, but is not likely to adversely affect federally listed species. We appreciate the opportunity to comment on your project. For further discussion, please contact Josh Rowell of my staff at (251) 441-5836.

Sincerely,



William J. Pearson
Field Supervisor
Alabama Ecological Services Field Office

Letter from Alabama State Historic Preservation Officer



ALABAMA HISTORICAL COMMISSION

468 South Perry Street
Montgomery, Alabama 36130-0900
334-242-3184 / Fax: 334-240-3477

Lisa D. Jones
Executive Director
State Historic Preservation Officer

January 18, 2017

Curtis M. Flakes
Corps of Engineers
P.O. Box 2288
Mobile, AL 36628-0001

Re: AHC 09-0199
Maintenance Dredging and Placement Activities/Mobile Harbor Navigation Project
Public Notice No. FPI6-MH01-04
Mobile County

Dear Mr. Flakes:

Our records indicate that we have previously concurred with this project this project. We continue to concur with project activities provided the scope of work remains the same. However, if the scope of work has changed, further consultation with our office will be necessary.

Should artifacts or archaeological features be encountered during project activities, work shall cease and our office shall be consulted immediately. Artifacts are objects made, used or modified by humans. They include but are not excluded to arrowheads, broken pieces of pottery or glass, stone implements, metal fasteners or tools, etc. Archaeological features are stains in the soil that indicate disturbance by human activity. Some examples are post holes, building foundations, trash pits and even human burials. This stipulation shall be placed on the construction plans to insure contractors are aware of it.

We appreciate your commitment to helping us preserve Alabama's historic archaeological and architectural resources. Should you have any questions, please contact Amanda McBride at 334.230.2692 or Amanda.McBride@ahc.alabama.gov. Have the AHC tracking number referenced above available and include it with any future correspondence.

Sincerely,

Lee Anne Wofford
Deputy State Historic Preservation Officer

LAW/AMH/amh

THE STATE HISTORIC PRESERVATION OFFICE
www.ahc.alabama.gov

Section 103 Concurrence from EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

OCT 20 2015

Mr. Curtis M. Flakes, Chief
Planning and Environmental Division
Mobile District Corps of Engineers
P.O. Box 2288
Mobile, Alabama 36628-0001

Dear Mr. Flakes:

This letter is in regard to your April 30, 2015, request for concurrence on the suitability for ocean disposal of maintenance dredged material from the Mobile Harbor Federal navigation channel, Alabama. Additional information was received on May 28, 2015 regarding current velocities within the channel. In a June 11, 2015, letter, the U.S. Environmental Protection Agency (EPA) acknowledged receipt of this information and requested, in accordance with Section 103(c)(2) of the Marine Protection, Research, and Sanctuaries Act (MPRSA), an extension to the original 45-day review period. The EPA requested additional information regarding the water quality modeling efforts and elutriate tests via email on June 26, 2015. Several conversations occurred between our agencies to ensure requested information was adequately addressed. A response was received on August 3, 2015. Final water quality modeling runs were received on September 4, 2015.

The Mobile Harbor project consists of maintenance dredging of the existing 47-foot by 600-foot Mobile Bar Channel, the existing 45-foot by 400-foot Mobile Bay channel, the existing 40-foot by 500 to 700-foot Mobile River Channel, a 40-foot by 800-1,000-foot turning basin opposite the Alabama State Port Authority (ASPA), and a 40-foot by 1,000-foot by 1,600-foot turning basin south of the Cochrane Bridge. The dredging would be performed with a tolerance of up to 2 feet of advanced maintenance plus 2 feet of overdepth dredging. All depths are mean lower low water. Dredged material volumes are estimated to be approximately 2.9 million cubic yards, annually. However, depending upon the availability of other planned placement options, the maximum potential annual volume could be as high as 5.6 million cubic yards. The dredging, transport, and placement of proposed dredged material at the Mobile Ocean Dredged Material Disposal Site (ODMDS) are expected to be performed by hopper, mechanical, and hydraulic dredges, depending upon location within the channel.

The EPA, Region 4, has completed its review of your Section 103 Evaluation Report and supporting documents and has completed an independent evaluation of the dredged material. The EPA concurs with your determination that the proposed dumping at the Mobile ODMDS will comply with the criteria set forth in 40 CFR § 227 subject to conditions as outlined below. A brief discussion of the compliance of the material with the criteria is provided below.

1. Exclusion Criteria – 40 CFR § 227.13(b)

Dredged material from the outer bar channel (sample stations MHX-13 and MHX-14) meets the criteria set forth in 40 CFR § 227.13(b)(1) as this material is composed predominately of sand, gravel, rock, or any other naturally occurring bottom material with particle sizes larger than silt, and the material is found in areas of high current or wave energy such as streams with large bed loads or coastal areas with shifting bars and channels. The samples analyzed from this area were classified as sand and silty sand with less than 10 percent fines. Additionally, currents in this area frequently exceed 30cm/sec. Dredged material from the outer bar channel (sample stations MHX-12 and MHX-15) meets the criteria set forth in 40 CFR 227.13(b)(3) as this material is substantially the same as the substrate at the Mobile ODMDS and is far removed from known sources of pollution to provide a reasonable assurance that such material has not been contaminated by such pollution. Material from this area is clay and clayey sands as is the material at the Mobile ODMDS. It is also seaward of the barrier islands. The material seaward of station 1760+10 is therefore environmentally acceptable for ocean disposal without further testing.

The remaining material proposed to be disposed at the Mobile ODMDS does not meet the criteria of paragraph (b) of this section and therefore, further testing was required as discussed below.

2. Water Column and Suspended Phase Determinations - 40 CFR § 227.6(c)(1&2) and 227.27(a&b)

For these tests, ammonia and lindane exceeded the Water Quality Criteria (WQC) prior to any dilution. However, only small dilutions of 1.35:1 and 3.22:1 were required to meet the WQC and these dilutions were more than met as discussed below. Therefore, it is not expected that the WQC will be exceeded after four hours at any time outside of the Mobile ODMDS boundaries.

Bioassays on three appropriately sensitive marine organisms were conducted. Water quality modeling was performed to demonstrate that adequate dilution would be achieved to meet the Limiting Permissible Concentration (LPC) after 4 hours and at all times outside the disposal site. Required dilutions ranged from 146:1 to 434:1. Modeled dilutions, subject to conditions (see enclosure 1) exceeded the required dilution in all cases. Accordingly, it is concluded that the liquid phase of the material is in compliance with 40 CFR § 227.6(c)(1&2) and § 227.27(a&b) provided compliance with the restrictions described in enclosure 1.


3. Benthic Determinations - 40 CFR § 227.6(c)(3) and § 227.27(b)

Solid phase toxicity evaluation: Ten-day toxicity tests were conducted using worms (*Neanthes arenaceodentata*) and amphipods (*Leptocheirus plumulosus*). These organisms are appropriately sensitive benthic marine organisms and are good predictors of adverse effects to benthic marine communities. For all dredging units, the amphipod toxicity result was within 20 percent of the reference/control and the worm toxicities were within 10 percent of the reference. These results show that the solid phase of the material is not likely to cause significant mortality and meets the solid phase toxicity criteria of §227.6(c)(3) and § 227.27(b).

Solid phase bioaccumulation evaluation: Twenty-eight day bioaccumulation tests were conducted on all project sediments using two appropriately sensitive benthic marine organisms, *Nereis virens* and *Macoma nasuta*. Tissue concentrations were compared to Food and Drug Administration (FDA) Action Levels. None of the contaminants, for which there are FDA Action Levels, exceed such thresholds in the tissues of organisms exposed to project sediments. Concentrations of contaminants in tissues of organisms exposed to project sediments were then compared to concentrations in tissues of organisms exposed to a reference sediment. Zinc, dioxin, and PAHs were found to be statistically higher in some samples as compared to the reference. When the bioaccumulation of contaminants in tissues exposed to dredged material exceeds that exposed to reference sediments, general risk-based evaluations must be conducted to evaluate compliance with 40 CFR § 227.13(c)(3). The EPA conducted such an evaluation. Two PAHs from station MH10-03 exceed the EPA's background tissue levels for the northern Gulf of Mexico and therefore warranted further analysis through a discussion of the eight factors in the Green Book. Although the PAHs exceeded reference values by a factor of 300 to 400, EPA concluded that there is no potential for undesirable effects due to bioaccumulation as a result of the presence of individual chemicals or of the solid phase of the dredged material as a whole. Accordingly, it is concluded that the solid phase of the material proposed for disposal meets the ocean disposal criteria at 40 CFR §227.6(c)(3) and § 227.27(b).

Pursuant to Section 104(a)(4) of the MPRSA, ocean disposal permits must be conditioned to assure consistency with approved Site Management and Monitoring Plans (SMMP). The Mobile ODMDS SMMP was developed in March 2015. This letter of concurrence is conditional upon implementation through contract conditions of the requirements of the Mobile ODMDS SMMP and the enclosed list of conditions. This determination of compliance is valid for a period of three years from the date of this letter. If you have any questions regarding this determination or management of the Mobile ODMDS, please contact Ms. Jennifer Derby at (404) 562-9401.

Sincerely,



James D. Giattina, Director
Water Protection Division

Enclosure

Mobile Maintenance Dredging
Ocean Disposal Conditions

1. A bathymetry survey of the ODMDS release zone will be conducted within three months prior to initiation of disposal activities.
2. A bathymetry survey of the ODMDS release zone will be conducted within thirty days of completion of disposal activities.
3. Disposal monitoring data will be collected and submitted to the EPA on a weekly basis consistent with the requirements of the March 2015 Mobile ODMDS SMMP.
4. A Post-disposal summary report will be submitted to the EPA within 90 days of completion of disposal activities.
5. All disposal will be initiated at least 330 feet within the boundaries of the Mobile ODMDS.
6. Special conditions for Dredging Units 02, 06/07, and 10/11 in order to comply with 40 CFR § 227.6(c)(1&2) and § 227.27(a&b):
 - a. Disposal operations with disposal volumes of less than or equal to 10,800 cubic yards per load have no further restrictions.
 - b. For volumes in excess of 10,800 cubic yards, the disposal vessel must dispose at speeds less than 3 knots (kts) (accuracy of +/-1 kts) and no more than one hopper bin may open simultaneously.
 - c. Disposal logs shall be maintained for each load in excess of 10,800 cubic yards. The logs will include at a minimum the following:
 - i. DQM load number
 - ii. Date, time, and vessel speed at initiation of disposal
 - iii. Volume of disposal
 - iv. Date, time, and vessel speed of opening and closing of each hopper bin
 - d. Disposal logs shall be submitted with the Post-disposal summary report (condition 4 above) or upon request.
 - e. Dredging Unit MH10-02 is defined as Mobile River Channel 141+00 to 156+00. Dredging Unit MH10-06/07 is defined as the Mobile Bay Channel 759+00 to 824+00. Dredging Unit MH10-10/11 is defined as the Mobile Bay Channel 1594+00 to 1760+10.

Mobile Harbor ODMDS Site Management and Monitoring Plan (SMMP)

March 2015

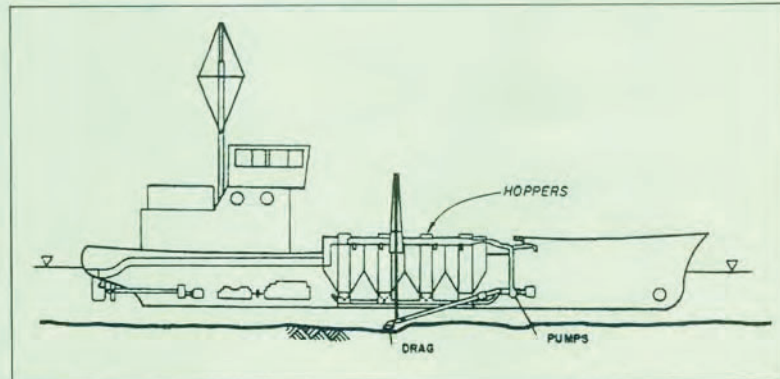
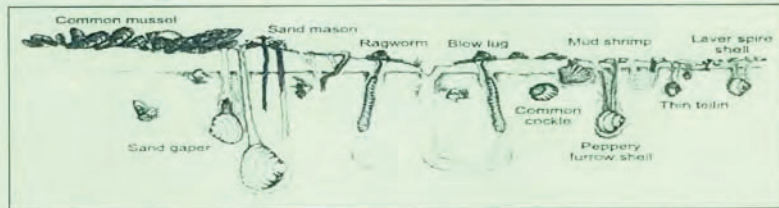
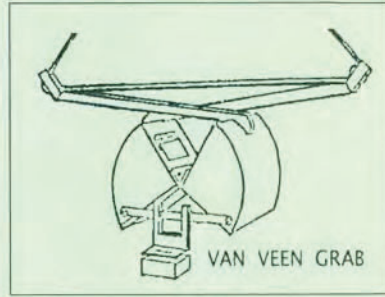
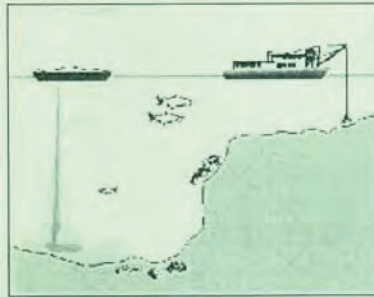


Mobile
OCEAN DREDGED MATERIAL DISPOSAL SITE




U.S. Army Corps
of Engineers

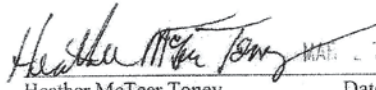
SITE MANAGEMENT AND MONITORING PLAN



The following Site Management and Monitoring Plan for the Mobile ODMDS has been developed pursuant to the Water Resources Development Act Amendments of 1992 (WRDA 92) to the Marine Protection, Research, and Sanctuaries Act of 1972 for the management and monitoring of ocean disposal activities.

 30 APR 15

Jon J. Chytka
Colonel, U.S. Army
District Commander
Mobile District
U.S. Army Corps of Engineers
Mobile, Alabama

 MAR 27 2015

Heather McTeer Toney
Regional Administrator
U.S. Environmental Protection Agency
Region 4
Atlanta, Georgia

This plan is effective from the date of EPA and USACE signature for a period not to exceed four years.

**MOBILE OCEAN DREDGED MATERIAL DISPOSAL SITE
SITE MANAGEMENT AND MONITORING PLAN**

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Mobile ODMDS
Site Management and Monitoring Plan

1.0 INTRODUCTION

It is the responsibility of the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (USACE) under the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 to manage and monitor each of the Ocean Dredged Material Disposal Sites (ODMDSs) designated by the EPA pursuant to Section 102 of MPRSA. Section 102(c)(3) of the MPRSA requires development of a Site Management and Monitoring Plan (SMMP) for each ODMDS and review and revision of the SMMP not less frequently than every 10 years. The 1996 document, *Guidance Document for Development of Site Management Plans for Ocean Dredged Material Disposal Sites* (EPA/USACE, 1996) and the EPA Region 4 and USACE South Atlantic Division (SAD) Memorandum of Understanding (EPA/USACE, 2007) have been used as guidance in developing this SMMP.

Specific responsibilities of EPA and the USACE are:

EPA: EPA is responsible for designating/de-designating MPRSA Section 102 ODMDSs, for implementing and evaluating environmental effects of disposal dredged material at these sites, and for reviewing and concurring on dredged material suitability determinations.

USACE: The USACE is responsible for evaluating dredged material suitability, issuing MPRSA Section 103 permits, regulating site use, and developing and implementing disposal monitoring programs.

The SMMP provisions shall be requirements for all dredged material disposal activities at the site. All Section 103 (MPRSA) ocean disposal permits or contract specifications shall be conditioned as necessary to assure consistency with the SMMP.

2.0 SITE MANAGEMENT

Section 228.3 of the Ocean Dumping Regulations (40 CFR 220-229) states: "Management of a site consists of regulating times, rates, and methods of disposal and quantities and types of materials disposed of; developing and maintaining effective ambient monitoring programs for the site; conducting disposal site evaluation studies; and recommending modifications in site use and/or designation."

2.1 Disposal Site Characteristics

The designation of the Mobile ODMDS can be found in 40 CFR 228.15(h)(14). Coordinates in the CFR are provided in NAD 27. The Mobile ODMDS is a 4.75 square nautical mile (nmi²) area.

Table 1: Site Coordinates

Geographic (NAD 27)	
30°10'00"N	88°07'42"W
30°10'24"N	88°05'12"W
30°09'24"N	88°04'42"W
30°08'30"N	88°05'12"W
30°08'30"N	88°08'12"W

The site (see Figure 1) lies on the shallow continental shelf, 4 nmi offshore Mobile Point, Alabama with an average depth of 14 meters. Physical, chemical, and biological conditions at the ODMDS are described in, "Final Environmental Impact Statement for the Pensacola, FL, Mobile, AL, and Gulfport, MS Dredged Material Disposal Site Designation." (EPA, 1987)

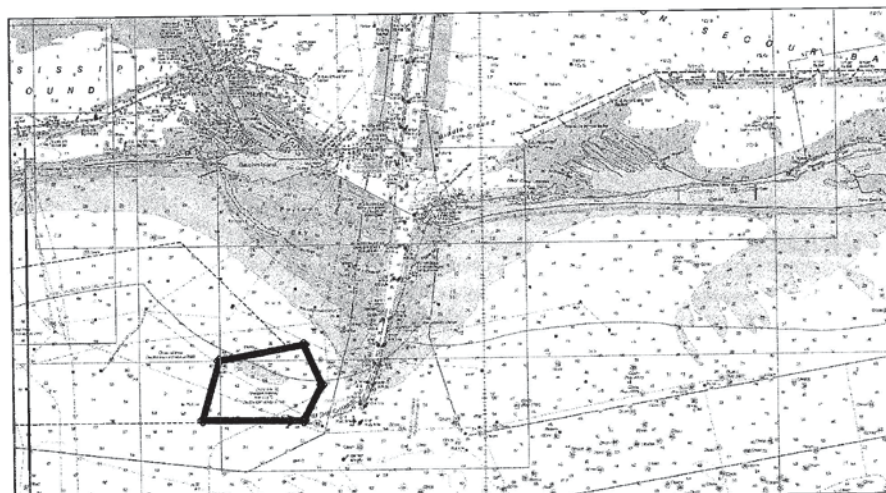


Figure 1: Mobile ODMDS Location Map.

2.2 Management Objectives. Appropriate management of an ODMDS is aimed at assuring that disposal activities will not unreasonably degrade or endanger human health, welfare, the marine environment or economic potentialities (MPRSA §103(a)). The primary objectives in the management of these ODMDSs are:

- Protection of the marine environment;
- Documentation of disposal activities and compliance; and
- Maintenance of a long term disposal alternative for dredged material, while encouraging beneficial use where practical.

The following sections provide the framework for meeting these objectives to the extent possible.

2.3 Disposal History and Dredged Material Volumes. Disposal history can be found at the Ocean Disposal Database maintained by the USACE (<http://el.erdc.usace.army.mil/odd/>). The Mobile ODMDS and the Mobile North ODMDS (selected by the USACE pursuant to Section 103 of the MPRSA) have been used for disposal of 120 million cubic yards since 1987 (USACE, 2014). Currently, the average annual disposal volume is about 4 million cys. The composition of the dredged material is primarily silts and clays. Future volumes and rates of disposal, from both Federal and private applicants, are expected to be similar to previous years. However, this estimate may increase if it is determined feasible to deepen and widen the Federal channel into Mobile Harbor to its currently authorized project dimensions. Also, the Mobile Harbor Turning Basin constructed in 2010 requires annual maintenance dredging of about 425,000 cubic yards per year which may go to the ODMDS (USACE, 2014). The USACE has estimated the remaining capacity of the Mobile ODMDS at 15 million cubic yards based on projected volumes and the remaining capacity the ODMDS has an estimated life of four years (USACE 2014). EPA in cooperation with the Mobile District is in the process of expanding the Mobile ODMDS through preparation of an Environmental Assessment and rulemaking and expects to expand the site within the next four years.

2.4 Dredged Material Characteristics.

2.4.1 Associated Beach Quality Materials. USACE Beneficial Use of Dredged Material EM 1110-2-5026 requires dredged material be maximized within the coastal system. Dredged materials that qualify for beach or near-shore placement per the applicable State standards shall be beneficially placed in such location, to the maximum extent practicable. It is expected that the applicable State will exercise its authority and responsibility, regarding beach nourishment, to the full extent during any future permitting activities. Beneficial use of beach compatible dredged material for beach nourishment is strongly encouraged and supported by EPA. Most sandy material is placed in the Sand Island Beneficial Use Area located due east of the ODMDS (USACE, 2014).

Mobile ODMS SMMMP

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2.4.2 Dredged Material Quality Verification. The suitability of dredged material for ocean disposal must be verified by the USACE and agreed to via written concurrence from EPA prior to disposal. Verification will be valid for three years from the most current verification.

Verification process:

- 1) Case-specific evaluation against the exclusion criteria (40 CFR 227.13(b)).
- 2) Determination of testing requirements for non-excluded material based on the potential of sediment contamination since last verification.
- 3) When applicable, execute testing and determination of suitability of non-excluded material for ocean disposal.

Verification documentation for suitability will be completed prior to use of the ODMS. Documentation will be in the form of a MPRSA Section 103 Evaluation. Potential testing and the Evaluation will follow the procedures outlined in the 1991 EPA/USACE Dredged Material Testing Manual and 2008 Southeast Regional Implementation Manual (SERIM) or the appropriate updated versions. This includes how dredging projects will be subdivided into project segments for sampling and analysis. The MPRSA Section 103 Evaluation will be in the form outlined in Appendix C of the SERIM. Water Quality Compliance determinations will be made using the STFATE (ADDAMS) model. Only material determined to be suitable and in compliance with the Ocean Dumping Criteria (40 CFR Part 227) through the verification process by the USACE and EPA, Region 4 can be disposed in this ODMS.

2.5 Time of disposal. At present no restrictions have been determined to be necessary for disposal related to seasonal variations in ocean current or biotic activity at the Mobile ODMS.

2.6 Disposal Technique. No specific disposal technique is required for the site. In order to protect sea turtles and Gulf sturgeon, the National Marine Fisheries Service, Protected Resources Division requires monitoring according to guidance outlined in the *Regional Biological Opinion for Dredging of Gulf of Mexico Navigation Channels and Sand Mining ("Borrow") Areas Using Hopper Dredges by USACE Galveston, New Orleans, Mobile, and Jacksonville Districts* (NMFS, 2003 and amended 2005 & 2007). In addition, standard surveillance and evasive measures to protect sea turtles and marine mammals shall be employed during all disposal operations at the ODMS.

2.7 Disposal Location. 40 CFR §227.28 requires all disposals to occur at least 330 feet (100 meters) inside any site boundaries. Release zones may be established by the USACE in consultation with EPA at the time of site use for operational reasons or to insure compliance with the Ocean Dumping Criteria (40 CFR Part 227). Disposal shall be initiated within the applicable release zone boundary and completed (i.e. doors closed) prior to leaving the ODMS boundaries. Placement methods, which prevent mounding of dredged materials from becoming an unacceptable navigation hazard, will be used. Dredged material shall be disposed so that at no point will depths less than -25 feet Mean Lower Low Water (MLLW) occur (i.e., a clearance of

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25 feet above the bottom will be maintained). The physical removal or leveling of material above -25 feet MLLW is a management alternative should mounds greater than that elevation occur. Disposal shall not occur closer than 1,300 feet to any oil and gas rigs that may be present within the site boundaries.

2.8 Permit and Contract Conditions. The disposal monitoring and post-disposal monitoring requirements described under Site Monitoring will be included as permit conditions on all MPRSA Section 103 permits and will be incorporated in the contract language for all federal projects. A summary of the management and monitoring requirements to be included are listed in Table 2.

Table 2. Summary of Permit and Contract Conditions

Condition	Reference
Dredged Material Suitability and Term of Verification	SMMP page 3, Southeast Regional Implementation Manual
Disposal within Appropriate Zones	SMMP page 4
Pre and Post Bathymetric Surveys	SMMP pages 6,8
Disposal Monitoring and Recording of Disposal Locations	SMMP pages 7-8
Reporting Requirements: Disposal Summary Reports within 90 Days of Project Completion	SMMP page 10

2.9 Permit Process. All disposal of dredged material in the ocean, with the exception of Federal Civil Works projects, requires an ocean dumping permit issued by the USACE pursuant to Section 103 of the MPRSA. A summary of the permitting process can be found at: http://www.epa.gov/region4/water/oceans/Dredged_Material_Permit_Process.htm.

2.10 Information Management of Dredged Material Placement Activities. EPA Region 4 and USACE SAD have agreed on an eXtensible Markup Language (XML) standard for sharing of disposal monitoring data (see also Section 3.5).

3.0 SITE MONITORING

The MPRSA establishes the need for including a monitoring program as part of the Site Management Plan. Site monitoring is conducted to ensure the environmental integrity of a disposal site and the areas surrounding the site and to verify compliance with the site designation criteria, any special management conditions, and with permit requirements. Monitoring programs should be flexible, cost effective, and based on scientifically sound procedures and methods to meet site-specific monitoring needs. The intent of the program is to provide the following:

- (1) Information indicating whether the disposal activities are occurring in compliance with the permit and site restrictions;
- (2) Information indicating the short-term and long-term fate of materials disposed of in the marine environment.
- (3) Information concerning the short-term and long-term environmental impacts of the disposal.

The main purpose of a disposal site monitoring program is to determine whether dredged material site management practices, including disposal operations at the site, need to be changed to avoid significant adverse impacts.

3.1 Baseline Monitoring. The results of investigations presented in the designation EIS (EPA, 1987) and subsequent surveys listed in Table 3 will serve as the main body of data for the monitoring of the impacts associated with the use of the Mobile ODMDS. A bathymetric survey will be conducted by the USACE or site user within three (3) months prior to project disposal for projects expected to exceed 50,000 cubic yards. Bathymetric surveys will be used to monitor the disposal mound to insure a navigation hazard is not produced, to assist in verification of material placement, to monitor bathymetry changes and trends and to insure that the site capacity is not exceeded, i.e., the mound does not exceed the site boundaries. Surveys will conform to the minimum performance standards for Corps of Engineers Hydrographic Surveys as described in the USACE Engineering Manual, EM1110-2-1003, Hydrographic Surveying dated November 30, 2013[http://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM_1110-2-1003.pdf] or updates. The number and length of transects required will be sufficient to encompass the release zone and a 500 foot-wide area around it. The surveys will be taken along lines spaced at 500-foot intervals or less. The minimum performance standards from Table 3-1 in Hydrographic Surveying shall be followed. Horizontal location of the survey lines and depth sounding points will be determined by an automated positioning system utilizing a differential global positioning system. The vertical datum will be referenced to prescribed NOAA Mean Lower Low Water (MLLW) datum. The horizontal datum should be referenced to the local State Plane Coordinate System (SPCS) for that area or in Geographical Coordinates (latitude-longitude). The horizontal reference datum should be the North American Datum of 1983 (NAD 83). No additional pre-disposal monitoring is required.

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Table 3. Surveys and Studies Conducted at or in the vicinity of the Mobile ODMDS

Survey/Study Title	Conducted By:	Date	Purpose	Results
<i>Analysis & Synthesis of Oceanic Conditions in the Mississippi Sound Offshore Region</i>	USACE	March 1984	Determine the direction and amount of sediment transport from a dredged material disposal site.	Circulation patterns within the site are controlled by astronomical tides, winds, and freshwater discharges.
Sediment Mapping	UGA Center for Applied Isotopes for EPA	2002	Characterization of bottom sediments using gamma spectrometry	- Baseline Survey
Mobile ODMDS Expansion Survey	USACE/EPA	May 2010	Collect physical, chemical and biological data on sediments and water	-Collected and analyzed 30 sediment and 10 water samples covering entire ODMDS
Mobile ODMDS Post Oil Spill Sediment Sampling	USACE	December 2010	Determine if any oil from the Deep Water Horizon Oil Spill has contaminated the sediments.	-Test results released February 2011 indicate there were no discernible changes in the sediment quality attributed to the Deepwater Horizon Oil Spill
Bathymetric Survey	USACE	Before and After Event	Monitor bathymetry changes	- Safe navigation depths have been maintained

3.2 Disposal Monitoring. For all disposal activities, an electronic tracking system (ETS) must be utilized. The ETS will provide surveillance of the transportation and disposal of dredged material. The ETS will be maintained and operated to continuously track the horizontal location and draft condition (accuracy \pm 0.1 foot) of the disposal vessel (i.e. hopper dredge or disposal scow) from the point of dredging to the disposal site and return to the point of dredging. Data shall be collected at least every 0.25 nautical mile or every 4 minutes during travel to and from the ODMDS and twelve seconds or every 30 feet of travel, while the hull status is open within the ODMDS. In addition to the continuous tracking data, the following trip information shall be electronically recorded for each disposal cycle:

- a. Load Number
- b. Disposal Vessel Name and Type (e.g. scow)
- c. Estimated volume of Load
- d. Description of Material Disposed
- e. Source of Dredged Material
- f. Date, Time and Location at Initiation and Completion of Disposal Event

Mobile ODMDS SMMP

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It is expected that disposal monitoring will be conducted utilizing the Dredging Quality Management (DQM) system for Civil Works projects [see <http://dqm.usace.army.mil/Specifications/Index.aspx>], although other systems are acceptable. Disposal monitoring and ETS data will be reported to EPA Region 4 on a weekly basis (within one week of disposal) utilizing the eXtensible Markup Language (XML) specification and protocol per Section 3.5. EPA Region 4 and the USACE District shall be notified within 24 hours if disposal occurs outside of the ODMDS or specified disposal zone or if excessive leakage occurs.

3.3 Post Discharge Monitoring. The USACE or other site user will conduct a bathymetric survey consistent with the pre-disposal survey requirements within 30 days after disposal project completion. Surveys will not be required for projects less than 50,000 cubic yards. If a release zone is utilized and adhered to, the number and length of the transects required will be sufficient to encompass the release zone and a 500 foot wide area around it. Bathymetric surveys will be used to monitor the disposal mound to insure a navigation hazard is not produced, to assist in verification of material placement, to monitor bathymetry changes and trends and to insure that the site capacity is not exceeded, i.e., the mound does not exceed the site boundaries.

3.4 Disposal Effects Monitoring. Based on the type and volume of material disposed and impacts of concern, various monitoring surveys can be used to examine if and the direction the disposed dredged material is moving, and what environmental effect the material is having on the site and adjacent areas. At the current time, no nearby biological resources have been identified that are of concern for potential impact. The Mobile ODMDS is at least one nautical mile from all known fish havens, artificial reefs, and fishing areas. The site has been characterized as dispersive. This means that it is expected that material will be moved outside the site boundaries. It is also expected that this material will not move in distinct mounds, but instead will blend with the surrounding environment causing a progressive transition to sediments containing a higher percentage of silt and clay. Changes in sediment composition will likely alter the benthic community structure. However, based on previous benthic studies, it is unlikely that permanent or long-term adverse impacts will result due to changes in sediment composition. At a minimum, a Trend Assessment Survey (40 CFR 228.13) will be conducted approximately every ten years.

Mobile ODMDS SMMP March 2015

Table 4. Site Monitoring Strategies and Thresholds for Action

Goal	Technique	Sponsor	Rationale	Frequency	Threshold for Action	Management Options	
						Threshold Not Exceeded	Threshold Exceeded
Trend Assessment	Water and Sediment Quality, Benthic Community Analysis (40CFR228.13)	U.S. EPA	Periodically evaluate the impact of disposal on the marine environment (40CFR 228.9)	Approximately every 10 years	-Absence from the site of pollution sensitive biota -Progressive non-seasonal changes in water or sediment quality	Continue Monitoring per site specific SMMP	-Conduct Environmental Effects Monitoring or Advanced Environmental Effects Monitoring per site specific SMMP. -Review dredged material evaluation procedures
Insure Safe Navigation Depth & Monitor Bathymetric Trends	Bathymetry	Site User	Determine height of mound and any excessive mounding	Pre & Post disposal for projects greater than 50,000 cy	Mound height > -30 feet mean lower low water (MLLW) Mound height > -25 feet MLLW	Continue Monitoring	-Modify future disposal method/placement -Restrict disposal volumes - Physically level material
Compliance	Disposal Site Use Records in EPA Region 4's XML format	Site User	-Insure management requirements are being met -To assist in site monitoring	Report weekly during the project	Disposal records required by SMMP are not submitted or are incomplete	Continue Monitoring	-Restrict site use until requirements are met

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3.5 Reporting and Data Formatting.

3.5.1 Project Initiation and Violation Reporting. The USACE or other site user shall notify EPA 15 days prior to the beginning of a dredging cycle or project disposal. The user is also required to notify the USACE and the EPA within 24 hours if a violation of the permit and/or contract conditions related to MPRSA Section 103 or SMMP requirements occur during disposal operations.

3.5.2 Disposal Monitoring Data. It is expected that disposal monitoring will be conducted utilizing the Dredge Quality Management (DQM) system for Civil Works projects [see <http://dqm.usace.army.mil/Specifications/Index.aspx>], although other systems are acceptable. Disposal monitoring data shall be provided to EPA Region 4 electronically on a weekly basis (within one week of disposal event). Data shall be provided per the EPA Region 4 XML format and delivered as an attachment to an email to DisposalData.R4@epa.gov. The XML format is available from EPA Region 4.

3.5.3 Post Disposal Summary Reports. A Post Disposal Summary Report shall be provided to EPA within 90 days after project completion. These reports should include: dredging project title; permit number and expiration date (if applicable); contract number; name of contractor(s) conducting the work, name and type of vessel(s) disposing material in the ODMDS; disposal timeframes for each vessel; volume disposed at the ODMDS (total paid and un paid *in situ* volume, and gross volume reported by dredging contractor in the disposal logs), number of loads to ODMDS, type of material disposed at the ODMDS; identification by load number of any misplaced material; dates of pre and post disposal bathymetric surveys of the ODMDS and a narrative discussing any violation(s) of the 103 concurrency and/or permit (if applicable). The narrative should include a description of the violation, indicate the time it occurred and when it was reported to the EPA and USACE, discuss the circumstances surrounding the violation, and identify specific measures taken to prevent reoccurrence. The Post Disposal Summary Report should be accompanied by the bathymetry survey results (plot and X,Y,Z ASCII data file), a summary scatter plot of all disposal start locations, and a summary table of the trip information required by Section 3.2 with the exception of the disposal completion data. If all data is provided in the required XML format, scatter plots and summary tables will not be necessary.

3.5.4 Environmental Monitoring. Disposal effects monitoring shall be coordinated with and be provided to appropriate federal and state agencies as specified in the site specific SMMP to be developed. Reports prepared by or for EPA will be posted to EPA's website at: <http://www.epa.gov/region4/water/oceans/sites.html> or alternative EPA website.

4.0 MODIFICATION OF THE MOBILE ODMDS SMMP

This SMMP will be effective for four years from the date of signature. It is expected that EPA will expand the Mobile ODMDS within four years and a new SMMP will be developed for the

expanded ODMDS and supersede this SMMP.

5.0 REFERENCES

ANAMAR Environmental Consulting, Inc. 2010. Final Report Mobile ODMDS Designation Survey Mobile, AL. W91278-08-D-0053. Project 09-0011, May 2010.

Center for Applied Isotope Studies, 1996. Postdisposal Areal Mapping of Sediment Chemistry at the Mobile, Mississippi ODMDS. EPA Contract No. 68-C2-0134, April 8, 1996.

EA Engineering, Science, and Technology, Inc. Draft Report Post-Oil Spill Surface Sediment Evaluation: Mobile Harbor Federal Navigation Channels Mobile, AL. February 2011.

Fredette, Thomas J., Nelson, David A., Clausner, James E., and Anders, Fred J. 1990. *Guidelines for Physical and Biological Monitoring of Aquatic Dredged Material Disposal Sites*, Technical Report D-90-12, US Army Engineer Waterways Experiment Station, Vicksburg, MS.

NMFS. (2003). Regional Biological Opinion for Dredging of Gulf of Mexico Navigation Channels and Sand Mining ("Borrow") Areas Using Hopper Dredging by USACE Galveston, New Orleans, Mobile, and Jacksonville Districts (Consultation Number F/SER/2000/01287), NOAA, NMFS, Southeast Regional Office, Protected Resources Division, St. Petersburg, FL, 121 pp.

Pequegnat, Willis E., Gallaway, Benny J., and Wright, Thomas D., 1990. *Revised Procedural Guide for Designation Surveys of Ocean Dredged Material Disposal Sites*, Technical Report D-90-8, US Army Engineer Waterways Experiment Station, Vicksburg, MS.

U.S. Army Corps of Engineers (COE). 2002. *Engineering & Design - Hydrographic Surveying*. Engineering Manual 1110-2-1003, Department of the Army, Washington D.C.

U.S. Army Corps of Engineers Mobile District (USACE). 2014. *Working Draft Environmental Assessment for the Proposed Expansion Mobile Section 102 ODMDS* November 2014.

U.S. Environmental Protection Agency, 1987. *Final Environmental Impact Statement for the Pensacola, FL, Mobile, AL, and Gulfport, MS Dredged Material Disposal Site Designation*. EPA Region 4, January 27, 1987.

U.S. Environmental Protection Agency and U.S. Army Corps of Engineers, 1991. *Evaluation of Dredged Material Proposed for Ocean Disposal (Testing Manual)*, February 1991. Prepared by Environmental Protection Agency Office of Marine and Estuarine Protection and Department of Army United States Army Corps of Engineers under EPA Contract No. 68-C8-0105.

Mobile ODMDS SMMP

March 2015

U.S. Environmental Protection Agency and U.S. Army Corps of Engineers, 1996. *Guidance Document for Development of Site Management Plans for Ocean Dredged Material Disposal Sites*, February 1996. Prepared by Environmental Protection Agency Office of Water and Department of Army United States Army Corps of Engineers.

U.S. Environmental Protection Agency, Region 4, 2007. *Dredged Material Ocean Disposal Verification System - Specifications for Data Submittal*, revised October 30, 2007. Prepared by Wetlands and Marine Regulatory Section.

U.S. Environmental Protection Agency Region 4 and U.S. Army Corps of Engineers South Atlantic Division, 2008. *Southeast Regional Implementation Manual Requirements and Procedures for Evaluation of the Ocean Disposal of Dredged Material in Southeastern Atlantic and Gulf Coastal Waters*, August 2008.

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APPENDIX A

WATER COLUMN EVALUATIONS
NUMERICAL MODEL (STFATE) INPUT
PARAMETERS

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Water Column Evaluations
Numerical Model (STFATE) Input Parameters
Mobile ODMDS

SITE DESCRIPTION

Parameter	Value	Units
Number of Grid Points (left to right)	80	
Number of Grid Points (top to bottom)	80	
Spacing Between Grid Points (left to right)	250	ft
Spacing Between Grid Points (top to bottom)	250	ft
Constant Water Depth	46	ft
Roughness Height at Bottom of Disposal Site	.005 ¹	ft
Slope of Bottom in X-Direction	0	Deg.
Slope of Bottom in Z-Direction	0	Deg.
Number of Points in Ambient Density Profile Point ¹	3	
Ambient Density at Depth = 3 ft	1.0206	g/cc
Ambient Density at Depth = 26 ft	1.0206	g/cc
Ambient Density at Depth = 46 ft	1.0207	g/cc

¹ from EPA Mobile ODMDS Designation Survey Report (2009) for Zone A

AMBIENT VELOCITY DATA

Parameter	Value	Units
Profile ²	2-Point at constant depth	
X-Direction Velocity = 11 feet	0.12	ft/sec
Z-Direction Velocity = 11 feet	-0.41	ft/sec
X-Direction Velocity = 33 feet	0.22	ft/sec
Z-Direction Velocity = 33 feet	-0.37	ft/sec

² from EPA Mobile ODMDS Designation Survey Report (2009)

DISPOSAL OPERATION DATA

Parameter	Value	Units
Location of Disposal Point from Top of Grid	10,000	ft
Location of Disposal Point from Left Edge of Grid	10,000	ft
Dumping Over Depression	0	

INPUT, EXECUTION AND OUTPUT

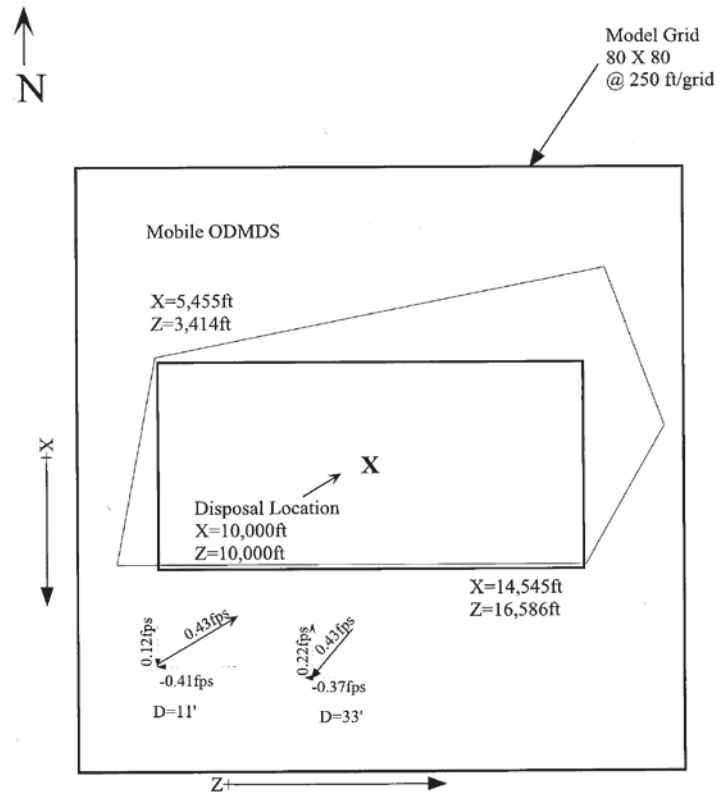
Parameter	Value	Units
Location of the Upper Left Corner of the Disposal Site - Distance from Top Edge	5,455	ft
Location of the Upper Left Corner of the Disposal Site - Distance from Left Edge	3,414	ft
Location of the Lower Right Corner of the Disposal Site - Distance from Top Edge	14,545	ft
Location of the Lower Right Corner of the Disposal Site - Distance from Left Edge	16,586	ft
Duration of Simulation	14,400	sec
Long Term Time Step	600	sec

COEFFICIENTS

Parameter	Keyword	Value
Settling Coefficient	BETA	0.000 ¹
Apparant Mass Coefficient	CM	1.000 ¹
Drag Coefficient	CD	0.500 ¹
Form Drag for Collapsing Cloud	CDRAG	1.000 ¹
Skin Friction for Collapsing Cloud	CFRIC	0.010 ¹
Drag for an Ellipsoidal Wedge	CD3	0.100 ¹
Drag for a Plate	CD4	1.000 ¹
Friction Between Cloud and Bottom	FRICTN	0.010 ¹
4/3 Law Horizontal Diffusion Dissipation Factor	ALAMDA	0.001 ¹
Unstratified Water Vertical Diffusion Coefficient	AKYO	Pritchard Expression
Cloud/Ambient Density Gradient Ratio	GAMA	0.250 ¹
Turbulent Thermal Entrainment	ALPHAO	0.235 ¹
Entrainment in Collapse	ALPHAC	0.100 ¹
Stripping Factor	CSTRIP	0.003 ¹

¹ Model Default Value

Mobile ODMDS STFATE Input Parameters



A-3

Mobile ODMDS Background Water Concentration.	
Chemicals of Concern	Background Concentration Levels (µg/l)
Arsenic	1.66 ¹
Cadmium	0.01 ¹
Chromium (VI)	0.75 ¹
Copper	1.11 ¹
Lead	0.75 ¹
Mercury	0.10 ^{1,3}
Nickel	0.75 ¹
Selenium	0.23 ¹
Silver	0.005 ¹
Zinc	3.78 ¹
Cyanide	
Tributyltin (TBT)	0.025 ^{2,3}
Aldrin	0.005 ^{1,3}
Chlordane	0.10 ^{1,3}
DDT	0.05 ^{1,3}
Dieldrin	0.005 ^{1,3}
alpha - Endosulfan	0.005 ^{1,3}
beta - Endosulfan	0.005 ^{1,3}
Endrin	0.005 ^{1,3}
gamma-BHC (Lindane)	0.005 ^{1,3}
Heptachlor	0.005 ^{1,3}
Heptachlor Epoxide	0.005 ^{1,3}
Toxaphene	.25 ^{1,3}
Pentachlorophenol	5.0 ^{2,3}

¹ Mobile ODMDS Site Designation Study (2010)

² Pensacola ODMDS Trend Assessment Study (2013)

³ Analyte not detected. Value based on one half the reporting limit.

APPENDIX B

TEMPLATE
For
MPRSA Section 103 Permits

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**TEMPLATE
GENERIC SPECIAL CONDITIONS
FOR MPRSA SECTION 103 PERMITS
Mobile-North ODMS**

I. DISPOSAL OPERATIONS

A. For this permit, the term disposal operations shall mean: navigation of any vessel used in disposal of operations, transportation of dredged material from the dredging site to the Mobile ODMS, proper disposal of dredged material at the disposal area within the Mobile ODMS, and transportation of the hopper dredge or disposal barge or scow back to the dredging site.

B. The Mobile ODMS is defined as the polygon with corner coordinates as follows:

Site Coordinates

Geographic (NAD 27)	
30°10'00"N	88°07'42"W
30°10'24"N	88°05'12"W
30°09'24"N	88°04'42"W
30°08'30"N	88°05'12"W
30°08'30"N	88°08'12"W

C. No more than [NUMBER] cubic yards of dredged material excavated at the location defined in [REFERENCE LOCATION IN PERMIT] are authorized for disposal at the Mobile ODMS.

D. The permittee shall use an electronic positioning system to navigate to and from the Mobile ODMS. For this section of the permit, the electronic positioning system will be as per the DQM specifications. If the electronic positioning system fails or navigation problems are detected, all disposal operations shall cease until the failure or navigation problems are corrected.

E. The permittee shall certify the accuracy of the electronic positioning system proposed for use during disposal operations at the Mobile ODMS. The certification shall be accomplished by providing current certification documentation from the National DQM Program for scow and hopper dredge

instrumentation systems. The National DQM certification is valid for one year from the date of certification.

F. The permittee shall not allow any water or dredged material placed in a hopper dredge or disposal barge or scow to flow over the sides or leak from such vessels during transportation to the Mobile ODMS.

G. A disposal operations inspector and/or captain of any tugboat, hopper dredge or other vessel used to transport dredged material to the Mobile ODMS shall insure compliance with disposal operation conditions defined in this permit.

1. If the disposal operations inspector or the captain detects a violation, he shall report the violation to the permittee immediately.

2. The permittee shall contact the U.S. Army Corps of Engineers, Mobile District's Regulatory Branch (251) 690-2658 and EPA Region 4 at (404) 562-9395 to report the violation within twenty-four (24) hours after the violation occurs. A complete written explanation of any permit violation shall be included in the post-dredging report.

H. When dredged material is disposed, no portion of the hopper dredge or disposal barge or scow shall be outside of the boundaries of the Mobile ODMS as defined in Special Condition B. Additionally, disposal shall occur within a specified disposal zone defined as [DEFINE COORDINATES AND SIZE OF DISPOSAL ZONE]. Disposal shall not occur closer than 1,300 feet to any oil and gas rigs that may be present within the site boundaries.

I. The permittee shall use an automated disposal verification system that is certified by the National DQM program to continuously track the horizontal location and draft condition of the disposal vessel (hopper dredge or disposal barge or scow) to and from the Mobile ODMS. This real-time information is available on-line to the Mobile District and will be provided to the EPA Region 4 via email using the eXtensible Markup Language (XML) specification and protocol. Data shall be provided per the EPA Region 4 XML format and delivered as an attachment to an email to DisposalData.R4@epa.gov. The XML format is available from EPA Region 4.

J. The permittee shall conduct a bathymetric survey of the Mobile ODMS within 30 days following project completion.

1. The number and length of the survey transects shall be sufficient to encompass the defined disposal zone within the Mobile ODMS and a 500 foot wide area around the disposal zone. The transects shall be spaced at 500-foot intervals or less with a depth recording density of 20 to 70 feet.

2. Vertical accuracy of the survey shall be ± 0.1 feet. Horizontal location of the survey lines and depth sounding points will be determined by an automated positioning system utilizing either microwave line of site system or differential global positioning system. The vertical datum will be referenced to prescribed NOAA Mean Lower Low Water (MLLW) datum. MLLW is 1.8 feet below NGVD 1929. The horizontal datum will be Alabama State Plane (zone 2301 MS East) or Geographic (NAD 1983). State Plane coordinates shall be reported to the nearest 0.10 foot and latitude and longitude coordinates shall be reported as degrees and decimal minutes to the nearest 0.01 minutes.

K. The permittee has read and agrees to assure that they are in compliance with the requirements of the Mobile ODMDS Site Management and Monitoring Plan.

II. REPORTING REQUIREMENTS

A. The permittee shall send the U.S. Army Corps of Engineers, Mobile District's Regulatory Branch and EPA Region 4's Wetlands, Oceans and Streams Protection Branch (61 Forsyth Street, Atlanta, GA 30303) a notification of commencement of work at least fifteen (15) days before initiation of any dredging operations authorized by this permit.

B. The permittee shall submit to the U.S. Army Corps of Engineers weekly disposal monitoring reports. These reports shall contain the information described in Special Condition I.1.

C. The permittee shall develop and send one (1) copy of the disposal summary report to the Mobile District's Regulatory Branch and one (1) copy of the disposal summary report to EPA Region 4 documenting compliance with all general and special conditions defined in this permit. The disposal summary report shall be sent within 90 days after completion of the disposal operations authorized by this permit. The disposal summary report shall include the following information:

1. The report shall indicate whether all general and special permit conditions were met. Any violations of the permit shall be explained in detail.

2. The disposal summary report shall include the following information: USACE permit number, actual start date and completion date of dredging and disposal operations, total cubic yards disposed at the Mobile ODMDS, locations of disposal events, and post disposal bathymetric survey results (in hard and electronic formats).

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APPENDIX C

TYPICAL CONTRACT LANGUAGE
FOR IMPEMENTING THE
MOBILE ODMDS SMMP REQUIREMENTS

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TYPICAL CONTRACT LANGUAGE FOR IMPEMENTING SMMP
REQUIREMENTS

3.3 DISPOSAL OF DREDGED MATERIAL

3.3.1 General

All material dredged shall be transported to and deposited in the disposal area(s) designated on the drawings. The approximate maximum and average distance to which the material will have to be transported are as follows:

Disposal Area	Maximum Distance Statute Miles	Average Distance Statute Miles
---------------	-----------------------------------	-----------------------------------

Mobile ODMDS

[INSERT DISPOSAL AREA 2]	[XX miles]	[XX miles]
-----------------------------	------------	------------

[IF MATERIAL FROM DIFFERENT PROJECT AREAS GO TO DIFFERENT
DISOSAL AREAS, IT COULD BE SPECIFIED HERE]

3.3.2 Ocean Disposal Notification

- a. The contractor shall notify EPA Region 4 's Wetlands, Oceans and Streams Protection Branch (61 Forsyth Street, Atlanta, GA 30303) at least 15 calendar days and the local Coast Guard Captain of the Port at least 5 calendar days prior to the first ocean disposal. The notification will be by certified mail with a copy to the Contracting Officer. The following information shall be included in the notification:
 - (1) Project designation; Corps of Engineers' Contracting Officer's name and contract number; and, the Contractor's name, address, and telephone number.
 - (2) Port of departure.
 - (3) Location of ocean disposal area (and disposal zone if required).
 - (4) Schedule for ocean disposal, giving date and time proposed for first ocean disposal.

3.3.3 Ocean Dredged Material Disposal Sites (ODMDS)

The material excavated shall be transported to and deposited in the Mobile ODMDS shown on the drawings. When dredged material is disposed, no portion of the hopper dredge or disposal barge or scow shall be outside of the boundaries of the Mobile ODMDS as shown on the drawings. Additionally, disposal shall be initiated within the disposal release zone defined by the following coordinates:

C-1

[insert coordinates for appropriate release zone]

Vertices	Geographic NAD 83		State Plane NAD 83	
Center				
North				
West				
South				
East				

3.3.4 Logs

The Contractor shall keep a log for each load placed in the Mobile ODMDS. The log entry for each load shall include:

- a. Load Number
- b. Disposal Vessel Name and Type (e.g. scow)
- c. Estimated volume of Load
- d. Description of Material Disposed
- e. Source of Dredged Material
- f. Date, Time and Location at Initiation and Completion of Disposal Event

At the completion of dredging and at any time upon request, the log(s) shall be submitted in paper and electronic formats to the Contracting Officer for forwarding to the appropriate agencies.

3.3.5 Overflow, Spills and Leaks

Water and dredged materials shall not be permitted to overflow or spill out of barges, hopper dredges, or dump scows during transport to the disposal site(s). Failure to repair leaks or change the method of operation which is resulting in overflow of spillage will result in suspension of dredging operations and require prompt repair or change of operation to prevent overflow or spillage as a prerequisite to the resumption of dredging.

3.3.6 Electronic Tracking System (ETS) for Ocean Disposal Vessels

The Contractor shall furnish an ETS for surveillance of the movement and disposition of dredged material during dredging and ocean disposal. This ETS shall be established, operated and maintained by the Contractor to continuously track in real-time the horizontal location and draft condition of the disposal vessel (hopper dredge or disposal barge or scow) for the entire dredging cycle, including dredging area and disposal area. The ETS shall be capable of displaying and recording in real-time the disposal vessel's draft and location.

[FOR DQM PROJECTS]

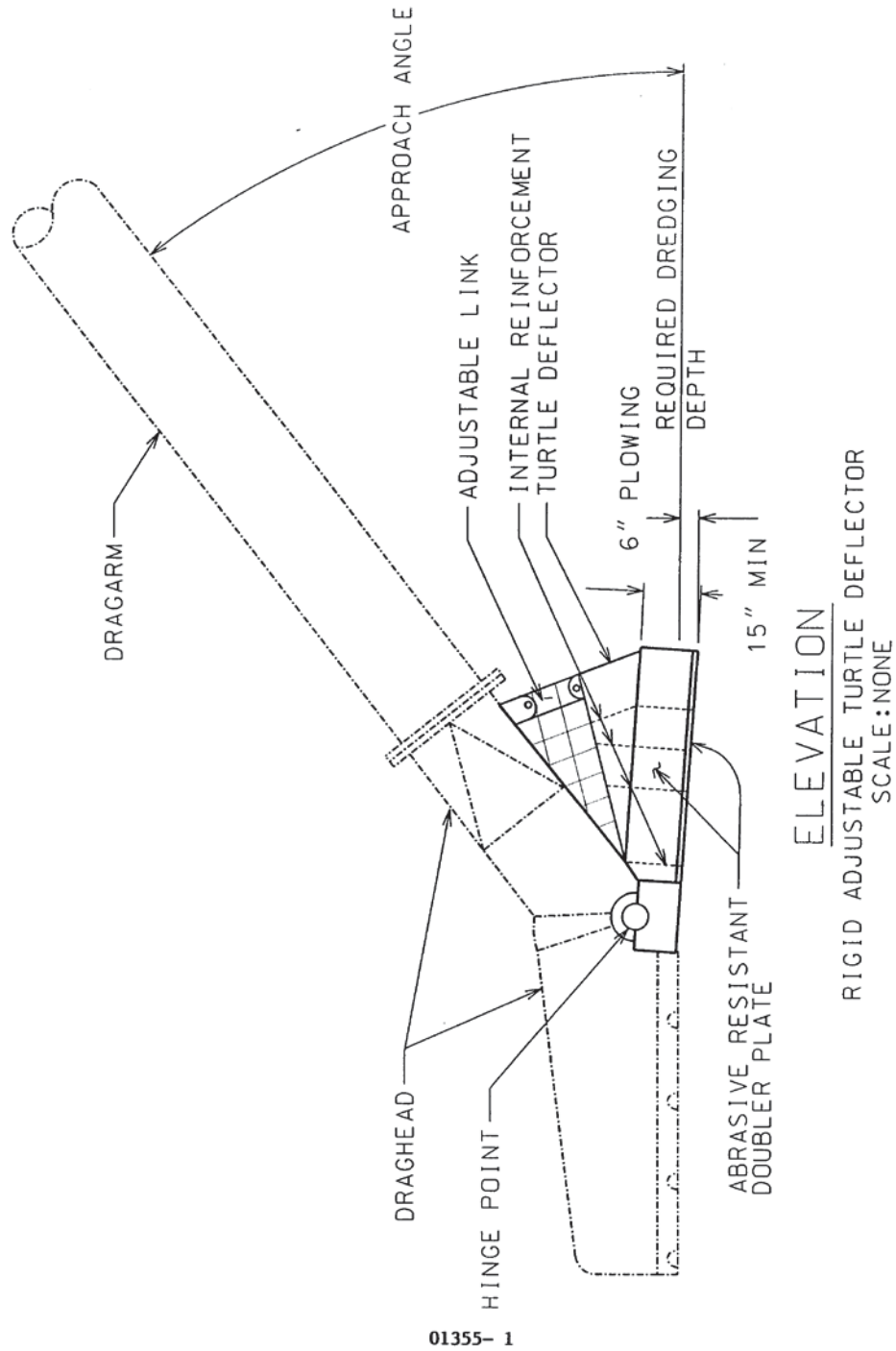
See: <http://dqm.usace.army.mil/Specifications/Index.aspx>

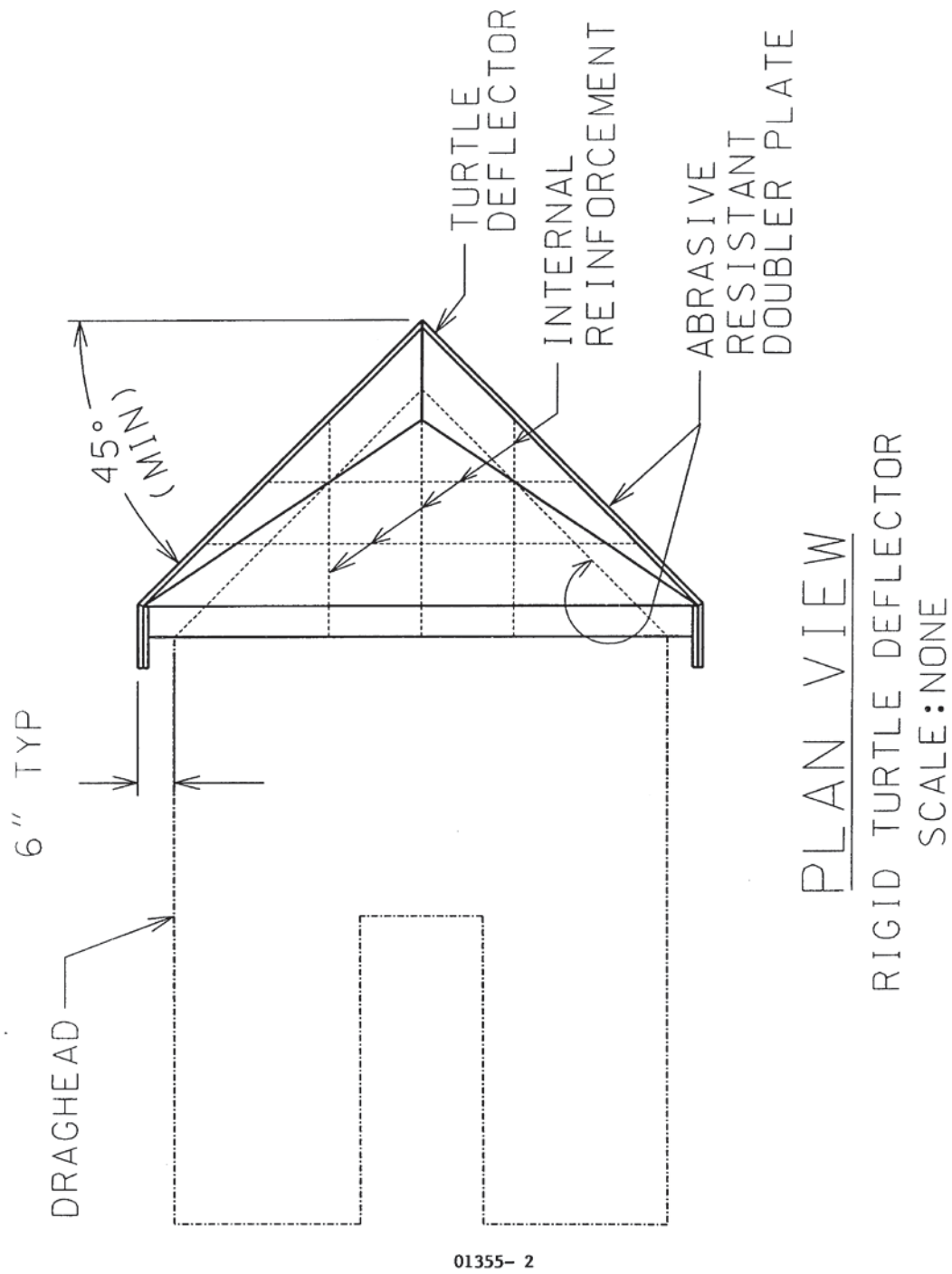
For scows, the monitoring profile, TDS profile or Ullage profile shall be used.

3.3.6.1 Misplaced Materials

Materials deposited outside of the disposal zone specified in 3.3.3 will be classified as misplaced material and will result in a suspension of dredging operations. Redredging of such materials will be required as a prerequisite to the resumption of dredging unless the Contracting Officer, at his discretion, determines that redredging of such material is not practical. If redredging of such material is not required then the quantity of such misplaced material shall be deducted from the Contractor's pay quantity. If the quantity for each misplaced load to be deducted cannot initially be agreed to by both the Contractor and Contracting Officer, then an average hopper/scow load quantity for the entire contract will be used in the determination. Misplaced loads may also be subject to penalty under the Marine, Protection, Research and Sanctuaries Act. Materials deposited above the maximum indicated elevation or outside of the disposal area template shown will require the redredging or removal of such materials at the Contractor's expense. In addition, the Contractor must notify the Contracting Officer and the Environmental Protection Agency Region 4's Wetlands, Oceans and Streams Protection Branch (61 Forsyth Street, Atlanta, GA 30303) within 24 hours of a misplaced dump or any other violation of the Site Management and Monitoring Plan for the Mobile ODMDS. Corrective actions must be implemented by the next dump and the Contracting Officer must be informed of actions taken.

Sea Turtle Deflector Specification





Turbidity Monitoring Report

TURBIDITY MONITORING REPORT
IRVINGTON SITE OFFICE
CONTRACT NUMBER:

=====

DATE: _____ REPORT NO. # _____

TIME OF DAY SAMPLE TAKEN: _____ hrs

WEATHER CONDITIONS: _____

DIRECTION OF WATER FLOW: _____ TIDAL STAGE: _____

WATER TEMP: _____ ° WIND SPEED _____ (MPH)

WAVE CONDITIONS (CALM, CHOPPY, ROUGH): _____

=====

TURBIDITY MEASUREMENT TAKEN APPROX. _____ FT. FROM DREDGE

TURBIDITY MEASUREMENT TAKEN APPROX. _____ FT. FROM DISCHARGE

DISCHARGE IS APPROX. _____ FT FROM DREDGE WITH AZIMUTH _____ °

DEPTH AT DREDGE: _____ FT. DEPTH AT DISCHARGE: _____ FT.

SURFACE TURBIDITY AT DREDGE: _____ NTU

MID-DEPTH TURBITY AT DREDGE: _____ NTU

SURFACE TURBIDITY AT DISCHARGE: _____ NTU D/A #: 11, SECTION 1a

MID-DEPTH TURBITY AT DISCHARGE: _____ NTU

=====

BACKGROUND TURBIDITY TAKEN APPROX. _____ FT FROM DREDGE

AZIMUTH FROM DREDGE: _____ °

WATER DEPTH: _____ FT

SURFACE TURBIDITY: _____ NTU MID-DEPTH TURBIDITY: _____ NTU

=====

REMARKS (VISIBLE PLUME, ETC.): Sea too rough for samples _____

INSPECTOR: _____

Standard Manatee Conditions

STANDARD MANATEE CONSTRUCTION CONDITIONS
April 2003

- a. The lessee/grantee shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with manatees. All construction personnel are responsible for observing water-related activities for the presence of manatees.
- b. The lessee/grantee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973.
- c. Siltation barriers shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to, or exit from, essential habitat.
- d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- e. If manatees are seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure their protection. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. Operation of any equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment. Activities will not resume until the manatee(s) has departed the project area of its own volition.
- f. Any collision with and/or injury to a manatee shall be reported immediately to Mr. Paul Necaie at (228) 493-6631 of the U.S. Fish and Wildlife Service in Jackson, Mississippi.
- g. Temporary signs concerning the manatees shall be posted prior to and during all construction/dredging activities. All signs are to be removed by the lessee/grantee upon completion of the project. A sign measuring at least 3 ft. by 4 ft. which reads *Caution: Manatee Area* will be posted in a location prominently visible to water related construction crews. A second sign should be posted if vessels are associated with the construction, and should be placed visible to the vessel operator. The second sign should be at least 8'6" by 11" which reads *Caution: Manatee Habitat. Idle speed is required if operating a vessel #7 the construction area. All equipment must be shutdown if a manatee comes within 50 feet of operation. Any collision with and/or injury to a manatee shall be reported immediately to the U.S. Fish and Wildlife Service in Jackson, Mississippi (228-493-6631).*

PENSACOLA HARBOR

SECTION 01 57 20.00 10.2

ENVIRONMENTAL PROTECTION

1.1 APPLICABLE REGULATIONS

The Contractor and their subcontractors in the performance of this contract, shall comply with all applicable Federal, State, and local laws and regulations concerning environmental pollution control and abatement, all applicable provisions of the Corps of Engineers Manual, EM 385-1-1, entitled "Safety and Health Requirements", in effect on the date of solicitation, and the specific requirements stated elsewhere in the contract specifications.

1.2 SCOPE

The work covered by this section consists of furnishing all labor, materials and equipment, and performing all work required for the prevention of environmental pollution during the during the maintenance dredging including advanced maintenance of the Lower Pensacola Harbor Federal navigation channel, except for those measures set forth in other Technical Provisions of these specifications. For the purpose of this specification, environmental pollution is defined as: a) the presence of chemical, physical, or biological elements or agents that adversely affect human health or welfare; b) unfavorably alter ecological balances; c) affect other species of designated importance of man; or d) degrade the utility of the environment for aesthetic and recreational purposes. The control of environmental pollution requires consideration of air, water, and land, and involves noise control, solid waste management, as well as control of other pollutants.

1.3 SUBCONTRACTORS

The Contractor and their subcontractors shall comply with all requirements under the terms and conditions set out in the permits or certifications issued by the Florida Department of Environmental Protection (DEP) and in compliance with the provisions of the Contract and applicable Federal, state, and local environmental laws and regulations. Compliance with the provisions of this section by subcontractors shall be the responsibility of the Contractor.

a. The Contractor shall submit an Environmental Protection Plan, in accordance with provisions as specified.

b. The Contractor shall record on daily reports any problems in complying with laws, regulations and ordinances, and corrective action taken.

c. The Contractor shall prepare a listing of resources needing protection (i.e., upland vegetation, wetlands, oyster reefs, submerged aquatic vegetation, air quality, noise levels,

surface and groundwater quality, fish and wildlife, historical, archeological, and cultural resources) within authorized work areas.

d. The Contractor shall prepare a pollution prevention plan that identifies all potentially hazardous substances on the job site and the intended actions to be taken to prevent the accidental or intentional introduction of such materials into the air, the water or the ground.

e. The Contractor shall set out the procedures to be followed to correct pollution of the environment due to accident, natural causes or failure to follow the procedures identified in the environmental protection plan.

f. The Contractor shall keep dredging and placement activities under surveillance and shall exercise all necessary controls to minimize damage to the environment by noise from equipment and various activities. Areas that have noise levels greater than 85-dB continuously or 140-dB peak (unweighted) impulse must be designated as noise hazardous areas. These work areas must have caution signs displayed at the perimeter of the noise area indicating the presence of hazardous noise levels and requiring the use of hearing protection devices.

g. The Contractor shall detail special provisions taken to meet Federal, state, and local laws and regulations regarding the storage and handling of solid and hazardous waste materials.

1.4 PAYMENT

No separate payment will be made for work covered under this section and all costs in connection therewith will be considered a subsidiary obligation of the Contractor and covered under the contract unit and/or lump sum prices in the Bidding Schedule.

1.5 ENVIRONMENTAL PROTECTION PLAN

Prior to commencement of the work, the Contractor shall, after receipt of Notice of Award of the Contract and at least 7 days prior to the Preconstruction Conference, submit in writing the above Environmental Protection Plan, and shall meet with representative(s) of the Contracting Office to develop mutual understanding relative to compliance with this provision and administration of the environmental protection program.

1.6 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with Federal, State, or local environmental laws or regulations, permits, and other elements of the Contractor's Environmental Protection plan. The Contractor shall, after receipt of such notice, inform the Contracting Officer of the proposed corrective action and take such action when approved by the Contracting Officer. The Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or equitable adjustments allowed to the Contractor for any such suspensions. This is in addition to any other actions the Contracting Officer may take under the contract, or in accordance with the Federal Acquisition Regulation or Federal Law.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 PROTECTION OF WATER RESOURCES

The Contractor shall not pollute any water bodies including streams, lakes, bays, estuaries, or other marine or fresh waters with fuels, oils, acids, or any other harmful materials. It is the responsibility of the Contractor to investigate and comply with all applicable Federal, state, county, and municipal laws concerning water pollution. The discharge of plastics of any kind within estuarine or marine waters is strictly prohibited. All work under this contract shall also be performed in such a manner that objectionable conditions will not be created in proximity to the project areas.

a. The Contracting Officer Representative will designate the proposed areas for excavation and the location of approved placement areas. No other areas are approved for the placement or excavation of material.

b. The Contractor shall comply with all turbidity and monitoring standards and other conditions set forth in the water quality standards as specified by the Florida DEP (0295379-001-JC (modified by 029379-003-JN)). The Government will monitor turbidity (NTU's) in the work area throughout the life of the contract to ensure that the Contractor complies with the permit requirements. Turbidity measurements must be taken daily at the dredge and discharge sites and a background location to be determined by the Contractor. The turbidity monitoring report (included in the Environmental Compliance Appendix) shall be filled out and submitted weekly to the Contracting Officer who will then forward to the Mobile District coastal Environment Staff: Ms. Lekesha Reynolds, PD-EC by email Lekesha.w.reynolds@usace.army.mil. The Contractor shall provide the name(s) and credentials of the person(s) responsible for turbidity monitoring in the Environmental Protection Plan. If turbidity at the beach placement or excavation sites exceeds 3.5 NTUs above mean background levels outside the prescribed mixing zones, as specified in the permit, the contractor shall cease activities until corrective actions have been taken and turbidity levels have returned to within compliance levels. Should work stoppage occur, the Contractor shall immediately notify the Contracting Officer Representative.

c. Special measures shall be taken to prevent chemicals, fuels, oils, and greases at the beach placement site or along the pipeline from entering area waters, at all times.

d. Contractor shall maintain Best Management Practices (BMPs) at all times during operations to minimize turbidity at both the dredge and placement sites.

e. Discharge of any pollutant into the watercourse is strictly prohibited, except as otherwise specified or allowed in other sections of the Technical Specifications.

f. Wastewater shall be processed, filtered, ponded, or otherwise treated prior to their release from project area into waterways.

g. All dredging equipment must have approved marine sanitation devices. Staging areas must have approved onsite wastewater treatment facilities.

3.2 PENSACOLA OCEAN DREDGED MATERIAL DISPOSAL SITE (ODMDS)

Placement of the dredged sediments within the ODMDS will be conducted in accordance with the conditions specified below in the Section 103 concurrence letter from U.S. Environmental

Protection Agency (EPA) and the Site Management and Monitoring Plan (SMMP). Both of these documents are included in the Environmental Compliance Appendix.

a. Pensacola Maintenance Ocean Disposal Conditions

(1) A bathymetry survey of the ODMDS release zone will be conducted within three months prior to initiation of disposal activities.

(2) A bathymetry survey of the ODMDS release zone will be conducted within thirty days of completion of disposal activities.

(3) All disposal will be initiated at least 330 feet within the boundaries of the Pensacola ODMDS.

3.3 RECORDING AND PRESERVING HISTORICAL AND ARCHEOLOGICAL FINDS

All items having any apparent historical or archeological interest, which are discovered in the course of any removing of material and placement activities shall be carefully preserved. The Contractor shall leave the archaeological find undisturbed and immediately report the find to the Contracting Officer Representative and the Mobile District Archeological Staff (attn: Mr. Steven Highland, PD-EI 251-694-3867) so the proper authorities may be notified. Existing historical, archeological and cultural resources within the Contractor's work area will be so designated by the Contracting Officer Representative. All activities associated with these resources shall be coordinated through the Mobile District Archeological Staff (attn: Mr. Steven Highland, PD-EI 251-694-3867).

3.4 PROTECTION OF LAND RESOURCES

The environmental resources within the project boundaries and those outside the limits of permanent work under this contract shall be protected during the entire period of this contract. The Contractor shall confine their activities to areas defined by the drawings and specifications. The Contractor shall perform a preconstruction survey, which includes but is not limited to photographs, and provide this to the Contracting Officer Representative prior to dredging and placement activities.

a. It is intended that the land resources outside the limits of permanent work completed under this contract be preserved in their present condition or be restored to natural conditions, after completion of dredging and placement activities.

b. The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in an area approved by the Contracting Officer Representative. The Contracting Officer Representative shall approve all temporary movement or relocation of Contractor facilities.

c. The Contractor shall be required to maintain all work areas within or without the project boundaries free from dust that would cause a hazard or nuisance to others.

d. The Contractor shall obliterate all signs of temporary support facilities such as haul roads, work areas, structures, foundations of temporary structures, or any other vestiges of activities as directed by the Contracting Officer Representative.

e. The Contractor shall construct or install all temporary and permanent erosion and sedimentation control features at the placement site and along the pipeline route.

f. Solid wastes (excluding clearing debris) includes any waste generated by the Contractor which meets the most complete definition of solid waste as described by Federal, state and local laws and regulations. Solid waste shall be placed in containers that are emptied on a regular schedule. All handling and disposal shall be conducted to prevent spillage and contamination.

g. Hazardous waste shall be stored, removed from the work area and disposed of in accordance with Federal, state and local laws and regulations.

h. The Contractor shall use drainage ditches, low ground pressure equipment, matting, geogrids, and/or other types of soil reinforcement as necessary to enable vehicle traffic and other activity.

3.5 PROTECTION OF FISH AND WILDLIFE

The Contractor shall at all times perform all work and take such steps required to prevent any significant interference or disturbance (as determined by the Contracting Officer Representative) to fish and wildlife.

a. The Contractor will not be permitted to alter water flows or otherwise disturb native habitats adjacent to the project area, which, in the opinion of the Contracting Officer Representative or their appointed representative, are critical to fish or wildlife. Fouling or polluting of water will not be permitted.

b. The Contractor must perform all work within compliance specifications of the permit issued by the Florida DEP (0295379-001-JC (modified by 029379-003-JN)) which is included in the Environmental Compliance Appendix.

c. Threatened and Endangered Species: The Contractor shall take all necessary precautions to ensure that activities conducted during the course of this project do not adversely impact listed threatened and endangered species. The Contractor shall instruct all personnel associated with the project of the potential presence of manatees, sea turtles, and Gulf sturgeon in the area, and the need to avoid collisions with and harming these animals. All construction personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing manatees, sea turtles, Gulf sturgeon, dolphins or whales; or destroying or adversely modifying critical habitat of these species which are protected under the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973. The Contractor must take special precautions to ensure adequate protection for wildlife resources.

(1) The Contractor shall adhere to all Federal, State, and local laws and regulations including the 2003 NMFS Gulf Regional Biological Opinion (GRBO) and subsequent amendments.

(2) The Contractor shall coordinate all activities associated with these resources with the Coastal Environment Team, Mobile District (attn: Ms. LeKesha Reynolds, PD-EC at 251-690-3260 or Ms. Jenny Jacobson, PD-E at 251-690-2724).

(3) If there are any incidents (live or dead) involving threatened or endangered species, the Contractor shall notify the Contracting Officer, Contracting Officer Representative, and the following individual(s) **within 24 hours**:

- Ms. Lekesha Reynolds 251-690-3260 (251-327-8650 after-hours) U.S. Army Corps of Engineers, PD-EC; or Ms. Jennifer Jacobson 251-690-2724, (251-472-7589 after hours) U.S. Army Corps of Engineers, PD-E

The Contracting Officer will direct the contractor as to any required shutdown procedures or necessary changes in dredge operation as to reduce the likelihood of additional incidents. The contractor shall suspend dredging immediately if:

- a. Two or more turtle incidents occur within 24 hours
- b. Two turtles incidents, of the same species, occur during dredging
- c. Four turtle incidents, regardless of species, occur during dredging
- d. One gulf sturgeon incident during dredging

d. Protection of Manatees: See "Standard Manatee Construction Conditions" in Environmental Compliance Appendix.

(1) Manatee Sighting: If a manatee(s) is sighted within 100 yards of the project area, all appropriate precautions shall be implemented by the Contractor to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. If a manatee is closer than 50 feet to moving equipment or the project area, the equipment shall be shut down and all construction activities shall cease within the waterway to ensure protection of the manatee. Construction activities shall not resume until the manatee has departed the project area. Animals must not be herded away or harassed into leaving. If construction activity shall cease, the Contractor shall notify the Contracting Officer.

(2) Manatee Signs: Prior to commencement of construction, each vessel involved in construction activities shall display at the vessel control station, or in a prominent location visible to all employees operating the vessel, a temporary sign at least 8-1/2" x 11" reading, "CAUTION: MANATEE HABITAT/IDLE SPEED IS REQUIRED IN CONSTRUCTION AREA." In the absence of a vessel, a temporary 3' x 4' sign reading "CAUTION: MANATEE AREA" shall be posted adjacent to the issued construction permit. A second temporary sign measuring 8-1/2" x 11" reading "CAUTION: MANATEE HABITAT. IDLE SPPED IS REQUIRED IF OPERATIING A VESSEL IN THE CONSTRUCTION AREA. ALL EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION. ALL COLLISIONS WITH AND/OR INJURY TO A MANATEE SHALL BE REPORTED IMMEDIATELY TO THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISASION HOTLINE (1-888-404-FWCC(3922)) OR THE USFWS IN JACKSONVILLE, FLORIDA (1-904-731-3336)" shall be posted at the dredge operator control station and at a location prominently adjacent to the issued construction permit. The Contractor shall remove the signs upon completion of construction.

(3) Manatee Sighting Reports: Any collisions with a manatee, or sighting of any injured

or incapacitated manatee, shall be reported immediately to the Contracting Officer or their appointed representative.

(4) Report Submission: The Contractor shall maintain a log detailing sightings, collisions, or injuries to manatees occurring during the contract period. All data in original form shall be forwarded directly to the Mobile District, Planning and Environmental Division, Coastal Environment Team, P.O. Box 2288 Mobile, Alabama 36628-0001, (Attn: Ms. Lekesha Reynolds) and the Area Engineer within 10 days of collection.

e. Protection of Sea Turtles and Gulf Sturgeon - Hopper Dredging Only: the Contractor shall implement the following conditions:

(1) Observers: The contractor shall supply NMFS-approved protected species observers to be aboard the hopper dredges to monitor the hopper dredged material, screening, and dragheads for sea turtles and Gulf sturgeon. Observer coverage shall be 100 percent (24 hr/day). During transit to and from the placement area, the observer shall monitor from the bridge during daylight hours for the presence of endangered species. During dredging operations, while dragheads are submerged, the observer shall continuously monitor the inflow and/or overflow screening for turtles and Gulf sturgeon and/or parts of these species. Upon completion of each load cycle, dragheads should be monitored as the draghead is lifted from the sea surface and is placed on the saddle in order to assure that any sea turtle that may be impinged is not lost or unaccounted for. Observers shall physically inspect dragheads and inflow and overflow screening/boxes for threatened and endangered species takes.

(2) New Operations and Dredging Endangered Species System (ODESS) Reporting System (preferred): The ODESS system, which consists of a tablet computer with an Internet connection, shall be a standalone system, exclusive to other systems, and shall have USACE ODESS data collection and reporting software, referred to as the ODESS Field collector (FC) tool, installed by USACE ODESS support personnel. In the event hardware or software problems prevent the storage or transmission of the collected data, paper copies of the latest ODESS forms and information shall be maintained and submitted to ODESS support and the USACE Inspector or Contracting Officer Representative according to the schedule outlined in the contract specifications. Hardware and Software requirements for the system can be found at the end of this section.

Prior to the initiation of the project, Observers shall be familiar with the operation of the ODESS FC tool and proficient in its use so as to be able to prepare and transmit the results of their observations. ODESS system webinar training can be requested by contacting ODESS Support at ODESS@usace.army.mil or 1-877-840-8024.

Depending on the target audience (Observer, dredging Contractor, USACE District personnel, or other Federal agencies), ODESS training could, in addition to the webinar training, consist of demonstrating the steps involved in setting up the FC tool on the dredge, loading Observer-collected data and attachments into the FC tool, submitting these data and attachments to the ODESS database, and/or navigating around the ODESS public website to view and pull down data and/or decision-making information for later analysis.

(3) ODESS Monitoring Reports (preferred): Observers shall record the results of the threatened and endangered species monitoring in the ODESS system by filling in the appropriate electronic forms on the ODESS FC tool and transmitting the data to the ODESS database. If there is an issue with recording data straight to the FC tool due to the logistical nature of how the Observer is collecting this data, paper copies of these forms can be downloaded from the ODESS public website (<http://dqm.usace.army.mil/odess/#/download>) and later entered into the FC tool when the Observer has the best opportunity.

Prior to the start of dredging, Observers shall verify that the ODESS FC tool is installed and operational on a dredge's dedicated tablet computer and that a viable Internet connection is available. In addition, before a project is initiated, on the ODESS FC tool homepage Observers shall retrieve (or "pull down") project-specific information from the ODESS database and perform a one-time setup of the dredging project by establishing the dredge name and time zone. During the project, the following forms shall be used in the FC tool and submitted to the ODESS database at the indicated reporting frequency:

(a) Load Data Form: Observers shall complete the Load Data Form, including a description of screen contents and sea conditions, based on their observations. This form shall be completed and transmitted to the ODESS database for each load. At the end of each Observer shift, or when an Internet signal is available (not to exceed 24 hours from the start of the shift), the Observer shall submit all of their Load Data Forms. If this is not possible due to hardware or software problems, the Observer shall revert to email submission of the forms to ODESS@usace.army.mil and Lekesha.W.Reynolds@usace.army.mil.

(b) Sea Turtle Incidental Data Form: If a sea turtle or its remains are identified during a load inspection, after the appropriate parties are notified via telephone, a Sea Turtle Incidental Data Form shall be completed and submitted to the ODESS database as soon as possible (not to exceed 12 hours after the incident). Any applicable documentation (scanned copies of the paper Observer load and incident forms, species photos, etc.) shall be included as electronic attachments (.JPG or .PDF) and submitted using the FC tool.

(c) Sturgeon Incidental Data Form: If a sturgeon or sturgeon parts are identified during a load, after the appropriate parties are notified, a Sturgeon Incidental Data Form shall be completed and submitted to the ODESS database as soon as possible (not to exceed 12 hours after the incident). Any applicable documentation (scanned copies of the paper Observer load and incident forms, species photos, etc.) shall be included as electronic attachments (.JPG or .PDF) and submitted using the FC tool.

(d) Marine Mammal Observation Data Form: If a large whale is observed, both the Dredge Load and the Marine Mammal Observation Data Forms shall be completed and submitted (not to exceed 12 hours after the observation) to ODESS Support at ODESS@usace.army.mil consistent with the endangered species compliance section of the contract specification.

(4) The contractor shall provide a digital camera, with an image resolution capability of 300 dpi, in order to photographically report all incidental sea turtle and Gulf sturgeon takes during dredging operations. Immediately following an incidental take of a sea

turtle or Gulf sturgeon, images shall be provided to accompany load data and incidental take forms submitted to the ODESS system. The nature of findings shall be fully described in the incidental take forms including references to photographs.

(5) Screening: Sea turtle observers are required on hopper dredges and shall provide for 100% inflow screening of dredged material; 100% overflow screening is recommended. If conditions prevent 100% inflow screening, inflow screening may be reduced gradually, as further detailed in the following paragraph, but 100% overflow screening is then required.

(6) Screen Size: The hopper's inflow screens shall have 4-inch by 4-inch screening. If the Contracting Officer Representative, in consultation with observers and the draghead operator, determines that the draghead is clogging and reducing production substantially, the screens may be modified sequentially: mesh size may be increased to 6-inch by 6-inch, then 9-inch by 9-inch, then 12-inch by 12-inch openings. Further clogging may compel removal of the screening altogether, in which case effective 100% overflow screening would be required. The Contactor Officer Representative shall request permission before doing so by contacting Mobile District Coastal Environmental Team (Ms. Lekesha Reynolds 251-690-3260) prior to the reductions in screening. The Contactor shall provide an explanation for such reduction in the dredging report.

(7) Dredging Pumps: Standard operating procedure shall be that dredging pumps are disengaged by the operator when the dragheads are not firmly on the bottom, to prevent impingement or entrainment of sea turtles within the water column.

(8) Sea Turtle Deflector Requirements:

(a) Sea Turtle Deflecting Draghead: A state-of-the-art rigid deflector draghead must be used on all hopper dredges in all Gulf of Mexico channels and sand mining sites at all times of the year and shall be installed while performing hopper dredging operations under this contract. The contractor shall submit drawings showing the proposed sea turtle deflector device and its attachment to the equipment being used. Drawings submitted shall include the approach angle for any and all depths to be dredged during the dredging. A copy of the approved drawings and calculations shall be available on the vessel during the dredging.

(b) Hopper Dredge Equipment: Hopper dredge drag heads shall be equipped with rigid sea turtle deflectors, which are rigidly attached. No dredging shall be performed by the hopper dredge without a turtle deflector device that has been approved by the Contracting Officer Representative.

(c) Deflector Design: The leading v-shaped portion of the deflector shall have an included angle of less than 90 degrees. Internal reinforcement shall be installed in the deflector to prevent structural failure of the device. The leading edge of the deflector shall be designed to have a plowing effect of at least 6" depth when the drag head is being operated. Appropriate instrumentation or indicator shall be used and kept in proper calibration to insure the critical "approach angle."

If adjustable depth deflectors are installed, they shall be rigidly attached to the drag head using either a hinged aft attachment point or an aft trunnion attachment point in association with an adjustable pin front attachment point or

cable front attachment point with a stop set to obtain the 6" plowing effect. This arrangement allows fine-tuning the 6" plowing effect for varying depths. After the deflector is properly adjusted there shall be NO openings between the deflector and the drag head that are more than 4" by 4".

(9) Training - Personnel on Hopper Dredges: The USACE may, as necessary, conduct thorough training on measures of dredge operation that will minimize takes of sea turtles and Gulf sturgeon. It shall be the goal of each hopper dredging operation to establish operating procedures that are consistent with those that have been used successfully during hopper dredging in other regions of the coastal United States, and which have proven effective in reducing turtle/dredge interactions.

(10) Monitoring Reports: The results of the monitoring shall be recorded on the appropriate observation forms. Observation forms shall include a daily report sheet and a weekly summary sheet. Observation sheets shall be completed regardless of whether any takes occur. Electronic copies of all data in its original form shall be forwarded to the Mobile District Coastal Environment Team (Attn: Ms. Lekesha Reynolds; fax number 251-690-2727 or e-mail Lekesha.W.Reynolds@usace.army.mil) within 10 days of collection. Copies of forms submitted shall be legible with a minimum of smudges or blackened areas.

f. Sea Turtle and Gulf Sturgeon Trawling and Relocation – Trawling and relocation shall be conducted during Hopper Dredging within the Lower Pensacola Harbor Channel unless otherwise directed by the Contracting Officer Representative. Trawling outside of this channel is not required unless there is a take. The Contractor shall implement the following Trawling and Relocation conditions:

(1) Trawling Requirements: Relocation trawling shall be conducted to remove sea turtles and Gulf sturgeon from the dredging area(s) during dredging to help prevent entrainment by the dredge. Sea Turtle and Gulf sturgeon Trawling and Relocation, as specified herein, will be at the option and in the discretion of the Government to aid in preventing sea turtle and Gulf sturgeon incidents during dredging operations with the approved turtle deflector in place. Trawling shall begin at least 12 hours prior to dredging. Based on the trawling results, the Government will make a decision on whether or not there is a need to continue trawling. Methods and equipment shall be standardized including data sheets, nets, trawling direction to tide, length of station, length of tow, and number of tows per station. Data on each tow shall be recorded in on Trawling Report form. The trawler shall be equipped with 60-foot nets constructed from 8-inch mesh (stretch) fitted with mud rollers and flats as specified in the Turtle Trawl Nets Specifications appended to the end of this Section. Paired net tows shall be made for 12 hours per day or night, as directed by the Contracting Officer or their appointed representative. The tows shall be performed in shifts, to be determined by the Contracting Officer or their appointed representative. The trawler shall be available for operation 24 hours a day. If two (2) separate trawlers are required, they shall operate side-by-side, as much as practicable. If multiple dredges are utilized, the trawler(s) shall be used for each dredge actively performing dredging operations. If the dredging operations are coordinated so that only one (1) dredge is actively dredging, trawler(s) shall be required for only that dredge. If dredging operations cease for a period of 12 hours or more, relocation trawling shall be conducted for a minimum of 4 hours prior to resuming dredging operations. The trawler(s) shall be positioned ahead of the hopper dredge and as close to the hopper

dredge as safely possible to give maximum coverage ahead of the dredging cut. The dredge and trawler(s) shall work closely together to implement techniques and procedures that will minimize the opportunity for turtles and Gulf sturgeon to enter the dredging path between the trawler(s) and dredge. NOTE: ALL TRAWLING ACTIVITIES, VESSELS AND EQUIPMENT SHALL COMPLY WITH THE CONTRACTOR'S ACCIDENT PREVENTION PLAN AND THE REQUIREMENTS OF EM 385-1-1, U.S. ARMY CORPS OF ENGINEERS SAFETY AND HEALTH REQUIREMENTS MANUAL. Trawling shall be conducted with and against the tidal flow at a speed between 2.5 to 3.5 knots using repetitive 15- to 30-minute (total time) trawls in the work area. Trawl tow-time duration shall not exceed 30 minutes (doors in - doors out) and trawl speeds shall not exceed 3.5 knots. Positions at the beginning and end of each tow shall be determined from the Global Positioning System (GPS) equipment. Tow speed shall be recorded at the approximate midpoint of each tow. Acceptable GPS criteria shall be in accordance with EM 1110-1-1003, paragraph 5.3 and Table 5-1. This EM 1110-1-1003 can be located at the following website:

<http://www.publications.usace.army.mil/USACEPublications/EngineerManuals.aspx> or can be purchased directly from the Government Printing Office by calling (202) 512-1800. The postal address is Superintendent of Documents, P. O. Box 371954, Pittsburgh, Pennsylvania 15250-7954 or on line at <http://bookstore.gpo.gov/>.

(2) Water Quality and Physical Measurements: Water temperature measurements shall be taken at the water surface each day using a laboratory thermometer. Weather conditions shall be recorded from visual observations and instruments on the trawler. Weather conditions, air temperature, wind velocity and direction, sea state-wave height, and precipitation shall be recorded on the Trawling Report form. High and low tides shall be recorded.

(3) Approved Sea Turtle Trawling and Relocation Supervisor: Trawling shall be conducted under the supervision of a crewmember that possesses the required permits for handling endangered species, experienced in sea turtle capture or is a NMFS-approved observer. A letter of approval from NMFS shall be provided to the Contracting Officer or their appointed representative prior to commencement of trawling.

(4) Repair and Replacement of Damaged Trawl Nets: The Contractor, at the time of mobilization, shall provide trawl nets, which meet the requirements specified in the Turtle Trawl Net Specifications at the end of this section. Trawl nets that are damaged shall be repaired or replaced by the Contractor at no additional expense to the Government. Tools, supplies and materials for repairing nets shall be kept aboard the trawler. In the event of damage to trawl nets, one hour shall be allowed to either repair or replace them. The Contractor shall have at least one set of replacement nets immediately available at all times, to insure that the dredging work is not adversely delayed due to trawler downtime for replacing damaged nets. It is recommended that a second set of replacement nets be available aboard the trawler.

(5) Equipment Breakdown: The contractor shall be placed in a non-pay status when trawling equipment breakdown is such that the trawler does not operate during the day. Pay time shall resume when trawling operations recommence.

(6) Suspension of Dredging and Relocation Trawling: Should there be dangerously high seas that would cause the trawler to leave the dredging area when relocation trawling is required, the dredge may continue to operate, as long as no turtles or Gulf sturgeon are

taken and subject to the discretion of the Contracting Officer.

(7) Turtle Excluder Devices: Approval for trawling for sea turtles without Turtle Excluder Devices (TEDs) on hopper dredge dragheads must be obtained from NMFS (contact Eric Hawk at 727-551-5773 or Nicole Bonine 727-824-5336). Any necessary State or Federal clearances for the capture and relocation of sea turtles shall also be obtained. Approvals shall be submitted to the Contracting Officer or their appointed representative prior to trawling.

(8) Handling During Trawling: Sea turtles and sturgeon captured pursuant to relocation trawling shall be handled in a manner designed to ensure their safety and viability, and shall be released over the side of the vessel, away from the propeller, and only after ensuring that the vessel's propeller is in the neutral, or disengaged, position (i.e., not rotating). Resuscitation guidelines are located in the Environmental Compliance Appendix.

(9) Captured Turtle and Gulf Sturgeon Holding Conditions: Turtles and Gulf sturgeon may be held briefly for the collection of important scientific measurements, prior to their release. Captured turtles shall be kept moist, and shaded whenever possible, until they are released, according to the requirements below. Captured Gulf sturgeon shall be held in a suitable well-aerated seawater enclosure until they are released according to the requirements below.

(a) Take and Release Time During Trawling - Turtles: Turtles shall be kept no longer than 12 hours prior to release and shall be released not less than three (3) nautical miles (nmi) from the excavation site. If two or more released turtles are later recaptured, subsequent turtle captures shall be released not less than (5) five nautical miles away. If it can be done safely and without injuries to the turtle, turtles may be transferred onto another vessel for transport to the release area to enable the relocation trawler to keep sweeping the dredge site without interruption. Minor skin abrasions resulting from trawl capture are considered non-injurious. Injured sea turtles shall be immediately transported to the nearest sea turtle rehabilitation facility. Also notify the Coastal Environmental Team, Mobile District, Ms. Lekesha Reynolds by phone at 251-690-3260 office or by email at Lekesha.w.reynolds@usace.army.mil. Observer(s), or their appointed representative(s), shall transport injured turtles to a rehabilitation facility as soon as possible. The NOAA Fisheries-approved turtle transporters shall be used for this purpose.

FLORIDA (partial list)

Gulf World
15412 Front Beach Rd
Panama City Beach, FL 32413
Tel. 850-234-5271

Florida's Gulfarium
1010 Miracle Strip Parkway SE
Ft. Walton Beach, FL 32548
Tel. 850-243-9046

Emerald Coast Wildlife Rescue
406 Mountain Dr
Destin, FL 32541
Tel. 850-/650-1880

(b) Take and Release Time During Trawling - Gulf Sturgeon: Gulf sturgeon shall be released immediately after capture, away from the dredge site, unless the trawl vessel is equipped with a suitable well-aerated seawater holding tank, container, trough or pool where a maximum of one sturgeon may be held for not longer than 30 minutes before it must be released or relocated away from the dredge site.

(10) Scientific Measurements: When safely possible, all turtles shall be measured (standard carapace measurements including body depth), tagged, weighed, and a tissue sample taken prior to release. When safely possible, all Gulf sturgeon shall be measured (fork length and total length), tagged, weighed, and a tissue sample taken prior to release. Any external tags shall be noted and data recorded onto the Tagging form. Only NMFS approved protected species Observers or Observer candidates in training under the direct supervision of a NMFS-approved observer shall conduct the tagging/measuring/weighing/tissue sampling operations.

(11) Turtle Flipper External Tagging: All sea turtles captured by relocation trawling shall be flipper-tagged prior to release with external tags which shall be obtained prior to the start of dredging from the University of Florida's Archie Carr Center for Sea Turtle Research. The NMFS-approved protected species observer aboard these relocation trawlers shall flipper-tag with external tags (e.g., Inconel tags) captured sea turtles. Columbus crabs or other organisms living on external sea turtle surfaces may also be sampled and removed.

(12) PIT Tagging: PIT tagging of sea turtles and Gulf sturgeon is not required if the NMFS-approved protected species observer does not have prior training or experience in said activity. However, if the observer has received prior training in PIT tagging procedures, then the observer shall PIT tag the animal prior to release (in addition to the standard external tagging):

(a) Sea turtle PIT tagging must then be performed in accordance with the protocol detailed at NMFS' Southeast Fisheries Science Center's web page: <http://www.sefsc.noaa.gov/species/turtles/observers.htm>.

(b) Gulf sturgeon PIT tagging must then be performed in accordance with the protocol detailed at the NMFS SERO PRD Web site.

(c) PIT tags used must be sterile, individually wrapped tags to prevent disease transmission. PIT tags should be 125 kHz, glass-encapsulated tags-the smallest ones made.

(13) Other Sampling Procedures: All other tagging and external or internal sampling procedures (e.g., blood letting, laparoscopies, anal and gastric lavages, mounting satellite or radio transmitters, etc.) performed on live sea turtles or live sturgeon are not permitted unless the observer holds a valid sea turtle or sturgeon research permit authorizing this activity, either as the permit holder, or as designated agent of the permit holder.

(14) Trawler Reporting: At the end of each week, a summary detailing the week's relocation trawling (number of tows, details about turtles/sturgeons relocated, etc) shall emailed by the contractor to Ms. Lekesha Reynolds of the Mobile District Coastal

Environment Staff at Lekesha.W.Reynolds@usace.army.mil. The results of each trawl shall be recorded on the Trawling Report. Sample forms are provided in Appendix B. Following completion of the project, an electronic copy of the trawling reports shall be forwarded to Ms. Lekesha Reynolds at: Lekesha.W.Reynolds@usace.army.mil within 10 working days of dredging completion. Copies of the reports shall also be furnished to Ms. Nicole Bonine, National Marine Fisheries Service, by email at Nicole.bonine@noaa.gov.

g. Collateral or "Piggy Back" Research - Hopper Dredging/Trawling Relocation Only: Any sea turtle research activities proposed by the contractor, or outside parties, to be conducted in association with USACE funded actions, including endangered species monitoring, relocation trawling operations, or use of turtles acquired by these operations shall comply with the following general requirements, and any specific requirements developed by the Corps on a case-by-case basis as requests are received:

- (1) The USACE shall be given at least 60 days to review and comment on any such research proposals. The point of contact for this review is Dena Dickerson at the Engineer Research and Development Center (ERDC) in Vicksburg MS.
- (2) No such research shall be conducted without the express consent of USACE.
- (3) The USACE shall be given the opportunity to review and comment on any potential publication or interpretation of resulting data prior to release. The point of contact for this review is Dena Dickerson at the ERDC.
- (4) The party or parties conducting the research shall possess a valid research permit pursuant to Section 10 of the Endangered Species Act; and will be responsible for any other Federal, State or local permits or authorizations required, including any requirement of the National Environmental Policy Act (NEPA).
- (5) Any injuries, including lethal takes resulting from sea turtle handling activity beyond USACE contract requirements shall be the responsibility of the researcher.
- (6) Acknowledgment that the research was conducted with the assistance of USACE shall be included in any resulting publication or report, at the discretion of USACE.
- (7) Research activities shall not hinder USACE contracted operations, nor result in any additional cost to the Government;
- (8) Research personnel not directly employed by USACE contractors or subcontractors shall not board contracted vessels without signing an appropriate waiver of liability and/or other documents required by USACE.

h. PIT-Tag Scanning - Hopper Dredging/Trawling Relocation Only: All sea turtles and Gulf sturgeon captured by relocation trawling or hopper dredges shall be thoroughly scanned for the presence of PIT tags prior to release using a multi-frequency scanner powerful enough to read multiple frequencies (including 125 128, 134 and 400-kHz tags) and read tags deeply embedded deep in muscle tissue (e.g., manufactured by Trovan, Biomark, or Avid). Turtles whose scans show they have been previously PIT tagged shall be externally flipper tagged. The data collected (PIT tag scan data and external tagging data) shall be submitted to NOAA, NMFS, Southeast Fisheries Science Center, Attn: Lisa Belskis, 75 Virginia Beach

Drive, Miami, Florida 33149. All data collected shall be submitted in electronic format within 60 working days to Lisa.Belskis@noaa.gov; and Sheryan.Epperly@noaa.gov. Sea turtle external flipper tag and PIT tag data generated and collected by relocation trawlers shall also be submitted to the Cooperative Marine Turtle Tagging Program (CMTTP), on the appropriate CMTTP form, at the University of Florida's Archie Carr Center for Sea Turtle Research.

Gulf sturgeon data (PIT tag scan data and external tagging data) shall be submitted within 60 days of project completion to NOAA, National Marine Fisheries Service, Protected Resources Division, 263 13th Avenue South, St. Petersburg, Florida 33701, or by fax: (727)824-5309; or by e-mail: takereport.nmfsser@noaa.gov, Attn: Dr. Stephania Bolden.

i. Handling Fibropapillomatose Turtles: NMFS-approved protected species observers onboard a relocation trawler or hopper dredges are not required to handle or sample the viral fibropapillomatose tumors if they believe there is a health hazard to themselves and choose not to. When handling sea turtles infected with fibropapilloma tumors shall either: 1) clean all equipment that comes in contact with the turtle (tagging equipment, tape measures, etc.) with mild bleach solution, between the processing of each turtle or 2) maintain a separate set of sampling equipment for handling animals displaying fibropapilloma tumors or lesions.

j. Requirement and Authority to Conduct Tissue sampling for Genetic Analyses - Hopper Dredging/Trawling Relocation Only: All alive or dead sea turtles and Gulf sturgeon captured by relocation trawling or dredging shall be tissue-sampled prior to release by a NMFS-approved protected species observer.

(1) Sea turtle tissue samples shall be taken in accordance with NMFS' Southeast Fisheries Science Centers' (SEFSC) procedures for sea turtle genetic analyses (included in the Environmental Compliance Appendix). Tissue samples shall be properly stored and mailed within 60 days of completion of dredging project, to NOAA, National Marine Fisheries Service, Southeast Fisheries Science Center, Attn: Lisa Belskis, 75 Virginia Beach Drive, Miami, Florida 33149.

(2) Gulf sturgeon tissue samples (i.e., fin clips or barbel clips) shall be taken in accordance with NMFS SERO's Protected Resources Division's Gulf sturgeon Tissue Sampling Protocol found at NMFS SERO PRD Website. Tissue samples shall be properly stored and mailed to SERO PRD (Attn: Dr. Stephania Bolden) within 60 days of dredging completion.

k. Equipment Lighting: During the sea turtle nesting season and emergence season May 1 to October 31, lighting on offshore or onshore equipment shall be minimized through reduction, shielding, lowering, and appropriate placement to avoid excessive illumination of the water's surface and nesting beach while meeting all Coast Guard, COE EM 385-1-1, and OSHA requirements. Light intensity of lighting plants should be reduced to the minimum standard required by U.S. Coast Guard and/or OSHA for General Construction areas, in order not to misdirect sea turtles. Shields should be affixed to the light housing and be large enough to block light from all lamps from being transmitted outside the construction area.

3.6 PROTECTION OF AIR RESOURCES

All fuel burning equipment shall be properly maintained to prevent violations of State or Federal

Air Pollution Standards or interference with inhabitants of the area by causing drastic changes in their accustomed environment. If burning is required, the Contractor should obtain a burning permit from the local fire department, if necessary. Daily inspections will be made of all fuel burning equipment. Immediate corrective action shall be taken if exhaust emissions are found to be excessive.

3.7 MAINTENANCE OF POLLUTION CONTROL FACILITIES DURING DREDGING AND PLACEMENT ACTIVITIES

During the life of this contract, the Contractor shall maintain all facilities constructed for pollution control as long as the operations creating the particular pollutant are being carried out or until the material concerned has become stabilized to the extent that pollution is no longer being created. During the dredging period the Contractor should conduct frequent training courses for his maintenance personnel. The curricula should include methods of detection of pollution, familiarity with pollution standards and measures for prevention or mitigation of environmental pollution.

3.8 SANITATION

The Contractor must provide suitable sanitation devices for the proper storage of all sanitary sewage. The Contractor shall ensure that all floating plant operates according to an approved waste management plan as required by 33 CFR Part 151. The dumping of sanitary sewage effluent and/or solids into the waters surrounding the job is strictly prohibited.

ENVIRONMENTAL COMPLIANCE APPENDIX

Turtle Trawl Net Specifications

Turtle Trawl Net Specifications

DESIGN: 4 Seam, 4 Legged, 2 Bridal Trawl Net
WEBBING: 4 inch bar, 8 inch stretch
 Top - 36 Gauge Twisted Nylon Dipped
 Side - 36 Gauge Twisted Nylon Dipped
 Bottom - 84 Gauge Braided Nylon Dipped
NET LENGTH: 60 ft from cork line to cod end
BODY TAPER: 2 to 1
WING END HEIGHT: 6 feet
CENTER HEIGHT: Dependent on depth of trawl - 14 to 18 feet
COD END: Length 50 meshes x 4 inches equals 16.7 feet
 Webbing 2 inch bar, 4 inch stretch, 84 gauge braid nylon
 Dipped, 80 meshes around, 40 rigged meshes with $\frac{1}{4}$ x 2
 inch choker rings, 1 each $\frac{1}{2}$ x 4 inch at end
 Cod End Cover - none
 Chaffing Gear - none
HEAD ROPE: 60 ft $\frac{1}{2}$ inch combination rope (braid nylon with
 stainless cable center)
FOOT ROPE: 65 ft $\frac{1}{2}$ inch combination rope
LEG LINE: Top - 6 ft, Bottom - 6 ft
FLOATS: Size - Tuna Floats (football style), Diameter - 7
 Inches; Length - 9 inches; number 12 each;
 Spacing - center of top net 2 inches apart
MUD ROLLERS: Size - 5 inch Diameter, 5.5 inch length
 Number - 22 each; spacing - 3 ft attached with $\frac{3}{8}$ inch
 Polypropylene rope (replaced with snap on roller when
 broken)
TICKLER CHAINS: NONE (Discontinued - but previously used $\frac{1}{4}$
 inch x 74 ft galvanized chain)
WEIGHT: 20 ft of $\frac{1}{4}$ inch galvanized chain on each wing, 40 ft
 per net looped and tied
DOOR SIZE: 7 ft x 40 inches (or 8 ft x 40 inches); Shoe - 1 inch
 X 6 inch: bridles - $\frac{3}{8}$ inch high test chain
CABLE LENGTH: (Bridle Length, Total) : $\frac{7}{16}$ inch x 240-300 ft
 varies with bottom conditions
FLOAT BALL: NONE
LAZY LINES: 1 inch nylon
PICKUP LINES: $\frac{3}{8}$ inch polypropylene
WHIP LINES: 1 inch nylon

ODESS System Requirements and Forms

HARDWARE REQUIREMENTS FOR THE ODESS SYSTEM

The dredge shall be equipped and the contractor is responsible for an ODESS hardware system consisting of a tablet computer, wireless keyboard, wireless mouse and data modem (or equivalent onboard internet connection) along with a proper tote bag and setup location for the afore mentioned hardware components. If a hardware problem occurs, or if a part of the system is physically damaged, the Contractor shall be responsible for repairing it within 48 hours of determination of the condition. The contractor shall also keep ODESS personnel updated on the status of the onboard ODESS system and the progress of any repairs.

Computer

The Contractor shall provide a dedicated onboard tablet computer for use by the observers and shall have ODESS software installed on it prior to project initiation. This computer shall be located and oriented to allow data entry and data viewing. It must meet or exceed the following specifications:

Tablet Hardware Component	Specification
CPU	Intel or AMD processor with a (non-overclocked) clock speed of at least 2.4 gigahertz (GHz)
Hard Disk	128 gigabytes (GB); solid state internal storage
RAM	4 gigabytes (GB)
Network Adapter	Internal wired or wireless network hardware to match internet connection
Video Adapter	Support for 1024x768 resolution at 16-bit color depth
Display	>= 10.8 in.
Integrated Camera	2MP HD webcam (front); 8MP (back)
Ports	1 free USB port

Internet Access

The Contractor shall maintain an Internet connection capable of transmitting data to the ODESS database. The telemetry system shall always be available and have connectivity in the contract area. If connectivity is lost, unsent data shall be stored locally within the FC tool and transmitted upon restoration of connectivity. The Contractor shall acquire and install all necessary hardware and software to make the Internet connection available for data transmission to the ODESS database. The hardware and software must be configured to allow remote access to the computer by USACE ODESS personnel. Coordination between the dredging company's IT and ODESS Support may be required in order to configure remote access through any security, firewall, router, and telemetry systems. Telemetry systems must be capable of meeting these minimum reporting requirements in all operating conditions.

SOFTWARE REQUIREMENTS

ODESS personnel shall be responsible for installing and testing all ODESS software tools on the dedicated onboard ODESS tablet computer. No other software which conflicts with the ODESS function of recording and transmitting data shall be installed on the tablet computer.

The Contractor shall be responsible for installing and/or maintaining any necessary manufacturer-provided software for the installed hardware. If any software problem occurs, the Contractor shall contact ODESS Support at ODESS@usace.army.mil or 1-877-840-8024.

The ODESS tablet computer shall have the following minimum software installed in support of the ODESS system:

Software	Specification
Operating System	Windows 10, Contractor-installed
Browser**	Chrome, Internet Explorer, Contractor-installed
ODESS Software	Field Collector (FC) tool, USACE ODESS Support Installed
Remote Access Software	Team Viewer, USACE ODESS Support-installed

**Latest version recommended, Chrome is preferred



**Operations and Dredging Endangered Species System
(ODESS)
USACE Sea Turtle Deflector Checklist for Hopper Dredges
for USACE and USACE/Army-Permitted Projects**

1. Read the contract plans and specs and/or all applicable permits (Dept. of the Army Permit, State Permits) to determine the contract or permit requirements for the protection of endangered sea turtles. (Each District spec or permit may be different.)
2. Read the Biological Opinion and any USACE Protocol, if available.
3. Develop a list of inspection requirements:
 - a. Deflector leading edge angle (90° or less).
 - b. Approach angle or leading edge plowing depth (6" or more).
 - c. Aft rigid attachment of the deflector to the draghead (hinged or trunnion).
 - d. Forward deflector attachment point (adjustable pinned or cable/chain with stop).
 - e. Opening between draghead and deflector (4" x 4" max).
 - f. Dredged material screening requirement (yes/no).
 - g. Screen type requirement (inflow, overflow, or both).
 - h. Inflow basket screen openings (4" x 4" max) and dredged material screening (100%).
 - i. Lighting of the inflow and overflow screens and proper access for cleaning (must meet EM 385-1-1).
 - j. UXO (Unexploded Ordnance) screening in use (yes/no).
 - k. Structural design of the deflector (per the approved deflector submittal).
 - l. Dredge operational requirements (starting/stopping the dredge pump, draghead plugging, raising the draghead, turning the dredge).



- m. Dredging Quality Management (DQM) dredging data recording requirement. Is dredging data recording (drag elevation, slurry density, and velocity) required by specs or permit? If so, is it being collected, is DQM turned on, and is data being submitted?
 - n. Turtle trawling requirement. Is turtle trawling required by specs or permit? If so, is it being performed?
 - o. Turtle observer requirements (12 or 24 hours).
 - p. A copy of the approved turtle deflector submittal is on board the vessel.
 - q. Copies of the contract plans and specs or the Dept. of the Army permit are on board the vessel.
4. Review the turtle deflector submittal. (Do not allow dredging to start until the submittal is approved.)
- a. Structural soundness.
 - b. Deflector leading edge angle (90° or less).
 - c. Approach angles submitted for the project's dredging depths.
 - d. 4" x 4" opening between the deflector and the draghead.
 - e. Aft rigid deflector attachment to draghead (hinged or trunnion).
 - f. Forward deflector attachment point (adjustable pinned or cable/chain with stop).
5. Ensure that the Contractor Quality Control (CQC) performs a pre-dredging inspection. The CQC is required to review and inspect all items in section 3.
6. Ensure that the CQC performs a startup-dredging inspection:
- a. The CQC is required to check the turtle deflector to see if the deflector is installed and adjusted for the required dredge depth of the project in accordance with the approved deflector submittal.
 - b. The CQC is required to ensure that the drag tenders are operating the dredge pump and draghead in accordance with the specs/permit.
 - c. The CQC should perform a paint test to ensure that the deflector is plowing at least 6" into the dredge material while the dragtender is consistently maintaining the submitted and approved approach angle to a tolerance of +0 to -4°.
 - d. The CQC should note the inspection results in the Quality Control (QC) Daily Report.
7. Quality Assurance (QA) should perform a dredging operation inspection soon after the dredge starts dredging:
- a. Review and inspect all items in section 3.

- b. Inspect the turtle deflector to ensure that the deflector is installed and adjusted for the required dredge depth of the project in accordance with the approved deflector submittal.
- c. Require the contractor to perform a paint test to ensure that the deflector is plowing at least 6" into the dredge material while the dragtender is consistently maintaining the submitted and approved approach angle to a tolerance of +0 to -4°. (While over-penetration of the deflector may reduce production and increase fuel consumption of the dredge, it is allowed.)
- d. Ride the dredge through at least one dredging cycle (from dredging to the dump and then back to the dredge site).
- e. Watch the dragtender to ensure that he/she is operating the dredging equipment in accordance with the plans and specs:
 - i Starting the dredge pump only when the draghead is firmly on the bottom by watching the slurry specific gravity and swell compensator.
 - ii Reducing the slurry velocity to the dredge pump idle speed velocity before raising the draghead off the bottom.
 - iii Consistently maintaining the approach angle to a tolerance of +0 to -4° whenever the draghead is on the bottom and the dredge pump is operating
 - iv Raising the draghead off the bottom due to draghead plugging or ship crabbing.
- f. Ensure that the lockout tagout procedure for cleaning the inflow and overflow screens meets EM 385-1-1.
- g. Talk to the turtle observers to ensure that they are aware of contract and permit requirements and that they are inspecting the screens and deflectors and reporting any required maintenance to the dredge personnel. Also ensure that correct turtle observer forms are being used and filled out properly.
- h. Talk to the dredge Captain about maintaining the screens and deflectors.
- i. Ensure that DQM data is being sent to the National Dredging Quality Management Program.
- j. Note all pre-dredge/post-dredge and followup inspections in the QA and the QC Daily Reports.

Project Name: _____

Project Location: _____

Contract No.: _____

Dept. of the Army Permit No.: _____

Dredging Company Name: _____

Dredge Name: _____

Contractor CQC Inspector's Name: _____

USACE Inspector Name: _____

Office Symbol: _____ Date of Inspection: _____

Comments: _____



Operations & Dredging Endangered Species System (ODESS) Dredge Load



District <input style="width: 100%;" type="text"/>	Project <input style="width: 100%;" type="text"/>	Contract <input style="width: 100%;" type="text"/>	Dredge <input style="width: 100%;" type="text"/>	Dredging Company <input style="width: 100%;" type="text"/>
Load Number (Required)/Date <input style="width: 100%;" type="text"/>	Start Date (Required) <input style="width: 100%;" type="text"/>	Start Time (24 hours) (Required) <input style="width: 100%;" type="text"/>	Stop Date (Required) <input style="width: 100%;" type="text"/>	Stop Time (24 hours) (Required) <input style="width: 100%;" type="text"/>

Port Screen Condition <input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Bad Starboard Screen Condition <input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Bad Overflow Screen Condition <input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Bad Inflow Screen Percent <input type="checkbox"/> 25% <input type="checkbox"/> 50% <input type="checkbox"/> 75% <input type="checkbox"/> 100% Overflow Screen Percent <input type="checkbox"/> 25% <input type="checkbox"/> 50% <input type="checkbox"/> 75% <input type="checkbox"/> 100% Other Screen Percent <input type="checkbox"/> 25% <input type="checkbox"/> 50% <input type="checkbox"/> 75% <input type="checkbox"/> 100% # Dragheads Used <input style="width: 100%;" type="text"/> Draghead Length (ft) <input style="width: 100%;" type="text"/>	Draghead Width (ft) <input style="width: 100%;" type="text"/> Draghead Type <input type="checkbox"/> California Style <input type="checkbox"/> IHC <input type="checkbox"/> IHC + Water Injection <input type="checkbox"/> Wild Dragon <input type="checkbox"/> Other (Specify) <input style="width: 100%;" type="text"/> Deflector Condition <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> None UXO Screening in Use? <input type="checkbox"/> Yes <input type="checkbox"/> No Material Type <input type="checkbox"/> Clay <input type="checkbox"/> Consolidated Material <input type="checkbox"/> Mud <input type="checkbox"/> Other <input type="checkbox"/> Rock <input type="checkbox"/> Sand - Course <input type="checkbox"/> Sand - Fine <input type="checkbox"/> Sand - Medium <input type="checkbox"/> Sand - Mixed <input type="checkbox"/> Shell <input type="checkbox"/> Silt <input type="checkbox"/> Unknown	Weather Conditions <input type="checkbox"/> Sunny <input type="checkbox"/> Cloudy <input type="checkbox"/> Partly Cloudy Beaufort Sea Scale <input type="checkbox"/> 0 (0-1 kn, 0-0 ft) <input type="checkbox"/> 1 (1-3 kn, 0-1 ft) <input type="checkbox"/> 2 (4-6 kn, 1-2 ft) <input type="checkbox"/> 3 (6-10 kn, 2-3.5 ft) <input type="checkbox"/> 4 (10-16 kn, 3.5-6 ft) <input type="checkbox"/> 5 (16-21 kn, 6-9 ft) <input type="checkbox"/> 6 (21-27 kn, 9-13 ft) <input type="checkbox"/> 7 (27-33 kn, 13-19 ft) <input type="checkbox"/> 8 (33-40 kn, 19-25 ft) <input type="checkbox"/> 9 (40-47 kn, 25-32 ft) <input type="checkbox"/> 10 (47-55 kn, 32-41 ft) <input type="checkbox"/> 11 (55-63 kn, 41-52 ft) <input type="checkbox"/> 12 (>63 kn, >52 ft) Wave Height (ft) <input style="width: 100%;" type="text"/> Wind Speed (k) <input style="width: 100%;" type="text"/> Wind Direction (°) <input style="width: 100%;" type="text"/> Tide <input type="checkbox"/> High <input type="checkbox"/> Low <input type="checkbox"/> Slack <input type="checkbox"/> Rising <input type="checkbox"/> Falling <input type="checkbox"/> Unknown	Air Temp (°C) <input style="width: 100%;" type="text"/> Surface Water Temp (°C) <input style="width: 100%;" type="text"/> Mid-Depth Water Temp (°C) <input style="width: 100%;" type="text"/> Bottom Water Temp (°C) <input style="width: 100%;" type="text"/> Trawling Being Conducted? <input type="checkbox"/> Yes <input type="checkbox"/> No Any Incidents Involving Endangered or Protected Species? <input type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Which Species? (Complete a Turtle or Sturgeon Incident form) <input type="checkbox"/> Marine Mammal <input type="checkbox"/> Sea Turtle <input type="checkbox"/> Sturgeon <input type="checkbox"/> Other <input type="checkbox"/> Unknown Whale Sighting Notification Received? <input type="checkbox"/> Yes <input type="checkbox"/> No Alert Sent to District? <input type="checkbox"/> Yes <input type="checkbox"/> No	Screen Contents 1 Port Screen Contents (incl. # of each item) <input style="width: 100%; height: 40px;" type="text"/> 2 Starboard Screen Contents (incl. # of each item) <input style="width: 100%; height: 40px;" type="text"/> 3 Overflow Screens Contents (incl. # of each item) <input style="width: 100%; height: 40px;" type="text"/> 4 Other Screen or Location (Specify) <input style="width: 100%; height: 40px;" type="text"/> Contents (incl. # of each item) <input style="width: 100%; height: 40px;" type="text"/> 5 Port Draghead Contents (incl. # of each item) <input style="width: 100%; height: 40px;" type="text"/> 6 Starboard Draghead Contents (incl. # of each item) <input style="width: 100%; height: 40px;" type="text"/>
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Comments

# Observers Used/24 Hours <input style="width: 100%;" type="text"/>	% Monitoring/Project <input type="checkbox"/> None <input type="checkbox"/> 75% <input type="checkbox"/> 25% <input type="checkbox"/> 100% <input type="checkbox"/> 50%	Observer(s) Name(s) (Req; Print) <input style="width: 100%;" type="text"/>	Observer(s) Signature(s) <input style="width: 100%;" type="text"/>	Observer(s) Company <input style="width: 100%;" type="text"/>
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Notes:

- **Screen Contents**—Examples include sea turtle (sp.), sturgeon (sp.), shark (sp.), ray (sp.), other fish of note (sp.), horseshoe crab, blue crab, other crab species, coral, jellyballs, other species of note, environmental debris, and trash.

ODESS Form 1(7) - 071116



Operations & Dredging Endangered Species System (ODESS) Marine Mammal Observation



US Army Corps
of Engineers

District	Project	Contract		
Dredge	Dredging Company	Load Number (Required)/Date		
Start Date (Required)	Start Time (24 hours) (Required)	End Date (Required)	End Time (24 hours) (Required)	
Beaufort Sea State				
<input type="checkbox"/> 0 (0-1 kn, 0-0 ft)	<input type="checkbox"/> 7 (27-33 kn, 13-19 ft)	Species Observed (Required)		
<input type="checkbox"/> 1 (1-3 kn, 0-1 ft)	<input type="checkbox"/> 8 (33-40 kn, 19-25 ft)	<input type="checkbox"/> Bryde's/Sei Whale	<input type="checkbox"/> Manatee	
<input type="checkbox"/> 2 (4-6 kn, 1-2 ft)	<input type="checkbox"/> 9 (40-47 kn, 25-32 ft)	# ____ Est. Length (ft.) ____	# ____ Est. Length (ft.) ____	
<input type="checkbox"/> 3 (6-10 kn, 2-3.5 ft)	<input type="checkbox"/> 10 (47-55 kn, 32-41 ft)	<input type="checkbox"/> Fin Whale	<input type="checkbox"/> Minke Whale	
<input type="checkbox"/> 4 (10-16 kn, 3.5-6 ft)	<input type="checkbox"/> 11 (55-63 kn, 41-52 ft)	# ____ Est. Length (ft.) ____	# ____ Est. Length (ft.) ____	
<input type="checkbox"/> 5 (16-21 kn, 6-9 ft)	<input type="checkbox"/> 12 (>63 kn, >52 ft)	<input type="checkbox"/> Humpback Whale	<input type="checkbox"/> Pilot Whale	
<input type="checkbox"/> 6 (21-27 kn, 9-13 ft)		# ____ Est. Length (ft.) ____	# ____ Est. Length (ft.) ____	
Air Temp (°C)	Water Temp (°C)	Winds (K)	Seas (ft)	Cloud Cover (%)
Magnetic Bearing to Sighting	Estimated Distance	Vessel's Heading	Heading of Animal(s)	
Coloration	Fins or Flippers Observed			
Behaviors Observed		Surfacing Intervals Time		
		Surfacing Intervals Distance		
Comments (Was the behavior of the animal(s) affected by the vessel? How far did the animal(s) move? Who was notified?)				
Observer(s) Name(s) (Required; Print)	Observer(s) Signature(s)	Observer(s) Company		

ODESS Form 4(7) - 071116



Operations & Dredging Endangered Species System (ODESS) Sturgeon Incident



US Army Corps
of Engineers®

District <input type="text"/>	Project <input type="text"/>	Contract <input type="text"/>
Dredge <input type="text"/>	Dredging Company <input type="text"/>	<u>Species (Required)</u> <input type="checkbox"/> Atlantic <input type="checkbox"/> Gulf <input type="checkbox"/> Unknown <input type="checkbox"/> Green <input type="checkbox"/> Shortnose
Load Number (Required)/Date <input type="text"/>	Recovery Date (Required) <input type="text"/>	Recovery Time (24 hours) (Required) <input type="text"/>
Incident/Take Description <input style="width: 100%; height: 50px;" type="text"/>		
<u>Location Specimen Recovered</u> <input type="checkbox"/> Deck <input type="checkbox"/> Hopper <input type="checkbox"/> Draghead <input type="checkbox"/> Overflow Screen (Circle one) <input type="checkbox"/> Inflow Cage (Circle one) Starboard/Port/Other <input type="checkbox"/> Pipe	<u>Specimen Condition</u> <input type="checkbox"/> Alive <input type="checkbox"/> Severely Decomposed <input type="checkbox"/> Dead <input type="checkbox"/> Skeleton <input type="checkbox"/> Fresh Dead <input type="checkbox"/> Skeleton Old Bone <input type="checkbox"/> Moderately Decomposed <input type="checkbox"/> Undetermined	Rows of Preanal Shields (SSN = 1/ATL = 2) <input type="text"/>
Location Comment <input style="width: 100%; height: 30px;" type="text"/>		
# Dorsal Scutes (SSN = 8-13/ATL = 7-16) <input type="text"/>	# Lateral Scutes (SSN = 22-33/ATL = 24-35) <input type="text"/>	# Ventral Scutes (SSN = 7-11/ATL = 6-9) <input type="text"/>
Fork Length (cm/in) <input type="text"/>	Standard Length (cm/in) <input type="text"/>	Total Length (cm/in) <input type="text"/>
Mouth Width (cm/in) <input type="text"/>	Head Width at Eyes (cm/in) <input type="text"/>	Other (cm/in) <input type="text"/>
<u>Genetic Samples Taken?</u> <input type="checkbox"/> Yes <input type="checkbox"/> No	<u>Samples Frozen/Preserved?</u> <input type="checkbox"/> Yes <input type="checkbox"/> No	<u>Photo Attached?</u> (If Yes, label the species, date, geographic site, and dredge name on the photo) <input type="checkbox"/> Yes <input type="checkbox"/> No
Comments <input style="width: 100%; height: 70px;" type="text"/>		
Use these diagrams to illustrate the specimen/part that was recovered.		
Observer(s) Name(s) (Required; Print) <input style="width: 100%; height: 30px;" type="text"/>	Observer(s) Signature(s) <input style="width: 100%; height: 30px;" type="text"/>	Observer(s) Company <input style="width: 100%; height: 30px;" type="text"/>

ODESS Form 3(6)-071116



Operations & Dredging Endangered Species System (ODESS) Turtle Incident



**US Army Corps
of Engineers**

District <input style="width: 100%;" type="text"/>	Project <input style="width: 100%;" type="text"/>	Contract <input style="width: 100%;" type="text"/>			
Dredge <input style="width: 100%;" type="text"/>	Dredging Company <input style="width: 100%;" type="text"/>	Species (Required) <input type="checkbox"/> Green <input type="checkbox"/> Hawksbill <input type="checkbox"/> Kemp's Ridley <input type="checkbox"/> Leatherback <input type="checkbox"/> Loggerhead <input type="checkbox"/> Unknown			
Load Number (Required)/Date <input style="width: 100%;" type="text"/>	Is this a Take? (Required) <input type="checkbox"/> Yes <input type="checkbox"/> No	Project Incident # (Required) <input style="width: 100%;" type="text"/>			
Recovery Date (Required) <input style="width: 100%;" type="text"/>	Recovery Time (24 hours) (Required) <input style="width: 100%;" type="text"/>	Incident/Take Description <div style="border: 1px solid black; height: 150px; width: 100%;"></div>			
Air Temp (°C) <input style="width: 100%;" type="text"/>	Surface Water Temperature (°C) <input style="width: 100%;" type="text"/>				
Mid-Depth Water Temperature (°C) <input style="width: 100%;" type="text"/>	Bottom Water Temperature (°C) <input style="width: 100%;" type="text"/>				
Location Specimen Recovered <input type="checkbox"/> Deck <input type="checkbox"/> Draghead <input type="checkbox"/> Inflow Cage (Circle one) Starboard/Port/Other					
Location Comment <div style="border: 1px solid black; height: 30px; width: 100%;"></div>		Age Class <input type="checkbox"/> Juvenile (10.1-80 cm) <input type="checkbox"/> Sub-Adult (80.1-87 cm) <input type="checkbox"/> Adult (>87 cm) <input type="checkbox"/> Unknown	Gender <input type="checkbox"/> Female <input type="checkbox"/> Male <input type="checkbox"/> Unknown	Specimen Condition <input type="checkbox"/> Alive <input type="checkbox"/> Dead <input type="checkbox"/> Fresh Dead <input type="checkbox"/> Moderately Decomposed <input type="checkbox"/> Severely Decomposed <input type="checkbox"/> Skeleton <input type="checkbox"/> Skeleton Old Bone <input type="checkbox"/> Undetermined	
Tag Type <input type="checkbox"/> Flipper <input type="checkbox"/> Pit	<input type="checkbox"/> Other (Specify) <input style="width: 50px;" type="text"/>	Head Width (cm/in) <input style="width: 100%;" type="text"/>	How Gender Determined <input type="checkbox"/> Tail Length <input type="checkbox"/> Eggs Observed <input type="checkbox"/> Other <input style="width: 50px;" type="text"/>		Photo Attached? (If Yes, label the species, date, geographic site, and dredge name on the photo) <input type="checkbox"/> Yes <input type="checkbox"/> No
Tag Number <input style="width: 100%;" type="text"/>	Plastron Length (cm/in) <input style="width: 100%;" type="text"/>	Carapace Straight Length (cm/in) <input style="width: 100%;" type="text"/>	Carapace Curved Length (cm/in) <input style="width: 100%;" type="text"/>		
Tag Date <input style="width: 100%;" type="text"/>	Plastron Width (cm/in) <input style="width: 100%;" type="text"/>	Carapace Straight Width (cm/in) <input style="width: 100%;" type="text"/>	Carapace Curved Width (cm/in) <input style="width: 100%;" type="text"/>		
Genetic Samples Taken? <input type="checkbox"/> Yes <input type="checkbox"/> No	Final Disposition of Specimen <input style="width: 100%;" type="text"/>				
Use these diagrams to illustrate the specimen/part that was recovered.					
		Comments <div style="border: 1px solid black; height: 100px; width: 100%;"></div>			
Observer(s) Name(s) (Required; Print) <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	Observer(s) Signature(s) <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	Observer(s) Company <div style="border: 1px solid black; height: 40px; width: 100%;"></div>			



ODESS Form 6(2) - 071116

Cooperative Marine Turtle Tagging Program (CMTTP) Tagging Data Form

**COOPERATIVE MARINE TURTLE TAGGING PROGRAM (CMTTP)
TAGGING DATA FORM**

SPECIES: _____	DATE CAPTURED: DAY _____ MO _____ YR _____	DATE RELEASED: DAY _____ MO _____ YR _____
TAG NUMBERS (LIST ALL NUMBERS AND LETTER PREFIXES; CIRCLE TAG NUMBERS ALREADY ON THE TURTLE [= "OLD TAGS"])		
LEFT FRONT: _____	RIGHT FRONT: _____	LEFT REAR: _____
PIT TAG#: _____		LOCATION OF PIT TAG: _____
WAS TURTLE CARRYING TAGS WHEN ENCOUNTERED?:		IF YES, THEN CIRCLE CORRECT STATEMENT:
YES		NO
1. RECAPTURE OF SAME PROJECT TURTLE (EITHER WITHIN SEASON OR BETWEEN SEASONS)		
2. RECAPTURE OF DIFFERENT PROJECT TURTLE (NOT A TAG YOUR GROUP APPLIED)		
TAG RETURN ADDRESS:		
ORGANIZATION TAGGING AND/OR RELEASING TURTLE (INCLUDE AREA CODE/PHONE NUMBER; AND EMAIL):		
PROJECT TYPE (CIRCLE ONE):		
[NESTING BEACH]	[TANGLE NET]	[POUND NET]
[HAND CATCH]	[STRANDING]	[OTHER, DESCRIBE]
IF NESTING BEACH: DID TURTLE NEST?	YES	NO
FACILITY WHERE TURTLE WAS BEING HELD:		
DESCRIBE CAPTURE LOCATION. BE SPECIFIC, INCLUDE COUNTY AND LAT/LONG IF AVAILABLE		
DESCRIBE RELEASE LOCATION. BE SPECIFIC, INCLUDE COUNTY AND LAT/LONG IF AVAILABLE		
TURTLE MEASUREMENTS:		
STRAIGHT CARAPACE LENGTH (SCLMINIMUM):	_____ CM	_____ INCHES
STRAIGHT CARAPACE LENGTH (SCLNOTCH-TIP):	_____ CM	_____ INCHES
STRAIGHT CARAPACE WIDTH (SCW):	_____ CM	_____ INCHES
CURVED CARAPACE LENGTH (CCLMINIMUM):	_____ CM	_____ INCHES
CURVED CARAPACE LENGTH (CCLNOTCH-TIP):	_____ CM	_____ INCHES
CURVED CARAPACE WIDTH (CCW):	_____ CM	_____ INCHES
WEIGHT:	_____ KG	_____ LBS
TURTLE WAS INSPECTED AND/OR SCANNED FOR:		
TAG SCARS:	YES	NO
PIT TAGS:	YES	NO
MAGNETIC WIRES:	YES	NO
LIVING TAGS:	YES	NO
ADDITIONAL REMARKS OR DATA ON BACK OF FORM:		YES
		NO
<p align="center">MAIL COMPLETED FORM TO: ARCHIE CARR CENTER FOR SEA TURTLE RESEARCH, DEPARTMENT OF ZOOLOGY, PO Box 118525 UNIVERSITY OF FLORIDA, GAINESVILLE, FL 32611 USA and SCDNR Marine Turtle Program, PO Box 12559, Charleston, SC 29422</p>		

Protocol for Collecting Tissue from Live and Dead Turtles for Genetic Analysis

Appendix II:

PROTOCOL FOR COLLECTING TISSUE FROM DEAD TURTLES FOR GENETIC ANALYSIS

Method for Dead Turtles

<<<IT IS CRITICAL TO USE A NEW SCALPEL BLADE AND GLOVES FOR EACH TURTLE TO AVOID CROSS-CONTAMINATION OF SAMPLES>>>

1. Put on a new pair of latex gloves.
2. Use a new disposable scalpel to cut out an approx. 1 cm (½ in) cube (bigger is NOT better) piece of muscle. Easy access to muscle tissue is in the neck region or on the ventral side where the front flippers "insert" near the plastron. It does not matter what stage of decomposition the carcass is in.
3. Place the muscle sample on a hard uncontaminated surface (plastron will do) and make slices through the sample so the buffer solution will penetrate the tissue.
4. Put the sample into the plastic vial containing saturated NaCl with 20% DMSO *(SEE BELOW)
5. Use the pencil to write the stranding ID number (observer initials, year, month, day, turtle number by day), species, state and carapace length on the waterproof paper label and place it in the vial with the sample.
EXAMPLE: For a 35.8 cm curved carapace length green turtle documented by Jane M. Doe on July 15, 2001 in Georgia, the label should read "JMD20010715-01, C. mydas, Georgia, CCL=35.8 cm". If this had been the third turtle Jane Doe responded to on July 15, 2001, it would be JMD20010715-03.
6. Label the outside of the vial with the same information (stranding ID number, species, state and carapace length) using the permanent marker.
7. Place clear scotch tape over the writing on the vial to protect it from being smeared or erased.
8. Wrap parafilm around the cap of the vial by stretching it as you wrap.
9. Place vial within whirlpak and close.
10. Dispose of the scalpel.
11. Note on the stranding form that a part was salvaged, indicating that a genetic sample was taken and specify the location on the turtle where the sample was obtained.
12. Submit the vial with the stranding report to your state coordinator. State coordinators will forward the reports and vials to NMFS for processing and archiving.

*The 20% DMSO buffer in the plastic vials is nontoxic and nonflammable. Handling the buffer without gloves may result in exposure to DMSO. This substance soaks into skin very rapidly and is commonly used to alleviate muscle aches. DMSO will produce a garlic/oyster taste in the mouth along with breath odor. The protocol requires that you WEAR gloves each time you collect a sample and handle the buffer vials.

The vials (both before and after samples are taken) should be stored at room temperature or cooler. If you don't mind the vials in the refrigerator, this will prolong the life of the sample. DO NOT store the vials where they will experience extreme heat (like in your car!) as this could cause the buffer to break down and not preserve the sample properly.

Questions:

Sea Turtle Program
NOAA/NMFS/SEFSC
75 Virginia Beach Drive
Miami, FL 33149
305-361-4207

THANK YOU FOR COLLECTING SAMPLES FOR SEA TURTLE GENETIC RESEARCH!!

Genetic Sample Kit Materials – DEAD turtles

- latex gloves
- single-use scalpel blades (Fisher Scientific 1-800-766-7000, cat. # 08-927-5A)
- plastic screw-cap vial containing saturated NaCl with 20% DMSO, wrapped in parafilm
- waterproof paper label, 1/4" x 4"
- pencil to write on waterproof paper label
- permanent marker to label the plastic vials
- scotch tape to protect writing on the vials
- piece of parafilm to wrap the cap of the vial
- whirl-pak to return/store sample vial

Appendix III:

PROTOCOL FOR COLLECTING TISSUE FROM LIVE TURTLES FOR GENETIC ANALYSIS

Method for Live Turtles

<<<IT IS CRITICAL TO USE A NEW BIOPSY PUNCH AND GLOVES FOR EACH TURTLE TO AVOID CROSS-CONTAMINATION OF SAMPLES>>>

1. Turn the turtle over on its back.
2. Put on a new pair of latex gloves.
3. Swab the entire cap of the sample vial with alcohol.
4. Wipe the ventral and dorsal surfaces of the rear flipper 5-10 cm from the posterior edge with the Betadine/iodine swab.
5. Place the vial under the flipper edge to use the cleaned cap as a hard surface for the punch.
6. Press a new biopsy punch firmly into the flesh as close to the posterior edge as possible and rotate one complete turn. Cut all the way through the flipper to the cap of the vial.
7. Wipe the punched area with Betadine/iodine swab; rarely you may need to apply pressure to stop bleeding.
8. Use a wooden skewer to transfer the sample from the biopsy punch into the plastic vial containing saturated NaCl with 20% DMSO *(SEE BELOW)
9. Use the pencil to write the stranding ID number (observer initials, year, month, day, turtle number by day), species, state and carapace length on the waterproof paper label and place it in the vial with the sample.
EXAMPLE: For a 35.8 cm curved carapace length green turtle documented by Jane M. Doe on July 15, 2001 in Georgia, the label should read "JMD20010715-01, *C. mydas*, Georgia, CCL=35.8 cm". If this had been the third turtle Jane Doe responded to on July 15, 2001, it would be JMD20010715-03.
10. Label the outside of the vial with the same information (stranding ID number, species, state and carapace length) using the permanent marker.
11. Place clear scotch tape over the writing on the vial to protect it from being smeared or erased.
12. Wrap parafilm around the cap of the vial by stretching it as you wrap.
13. Place vial within whirlpak and close.
14. Dispose of the biopsy punch.
15. Note on the stranding form that a part was salvaged, indicating that a genetic sample was taken and specify the location on the turtle where the sample was obtained.
16. Submit the vial with the stranding report to your state coordinator. State coordinators will forward the reports and vials to NMFS for processing and archiving.

*The 20% DMSO buffer in the plastic vials is nontoxic and nonflammable. Handling the buffer without gloves may result in exposure to DMSO. This substance soaks into skin very rapidly and is commonly used to alleviate muscle aches. DMSO will produce a garlic/oyster taste in the mouth along with breath odor. The protocol requires that you WEAR gloves each time you collect a sample and handle the buffer vials.

The vials (both before and after samples are taken) should be stored at room temperature or cooler. If you don't mind the vials in the refrigerator, this will prolong the life of the sample. DO NOT store the vials where they will experience extreme heat (like in your car!) as this could cause the buffer to break down and not preserve the sample properly.

Questions:

Sea Turtle Program
NOAA/NMFS/SEFSC
75 Virginia Beach Drive
Miami, FL 33149
305-361-4207

THANK YOU FOR COLLECTING SAMPLES FOR SEA TURTLE GENETIC RESEARCH!!

Genetic Sample Kit Materials – LIVE turtles

- latex gloves
- alcohol swabs
- Betadine/iodine swabs
- 4-6 mm biopsy punch – sterile, disposable (Moore Medical Supply 1-800-678-8678, part #0052442)
- plastic screw-cap vial containing saturated NaCl with 20% DMSO, wrapped in parafilm
- wooden skewer
- waterproof paper label, 1/4" x 4"
- pencil to write on waterproof paper label
- permanent marker to label the plastic vials
- scotch tape to protect writing on the vials
- piece of parafilm to wrap the cap of the vial
- whirl-pak to return/store sample vial



Sea Turtle Handling and Resuscitation Guidelines

Appendix IV: SEA TURTLE HANDLING AND RESUSCITATION GUIDELINES

Any sea turtles taken incidentally during the course of fishing or scientific research activities must be handled with due care to prevent injury to live specimens, observed for activity, and returned to the water according to the following procedures:

A) Sea turtles that are actively moving or determined to be dead (as described in paragraph (B)(4) below) must be released over the stern of the boat. In addition, they must be released only when fishing or scientific collection gear is not in use, when the engine gears are in neutral position, and in areas where they are unlikely to be recaptured or injured by vessels.

B) Resuscitation must be attempted on sea turtles that are comatose or inactive by:

1. Placing the turtle on its bottom shell (plastron) so that the turtle is right side up and elevating its hindquarters at least 6 inches (15.2 cm) for a period of 4 to 24 hours. The amount of elevation depends on the size of the turtle; greater elevations are needed for larger turtles. Periodically, rock the turtle gently left to right and right to left by holding the outer edge of the shell (carapace) and lifting one side about 3 inches (7.6 cm) then alternate to the other side. Gently touch the eye and pinch the tail (reflex test) periodically to see if there is a response.
2. Sea turtles being resuscitated must be shaded and kept damp or moist but under no circumstance be placed into a container holding water. A water-soaked towel placed over the head, carapace, and flippers is the most effective method in keeping a turtle moist.
3. Sea turtles that revive and become active must be released over the stern of the boat only when fishing or scientific collection gear is not in use, when the engine gears are in neutral position, and in areas where they are unlikely to be recaptured or injured by vessels. Sea turtles that fail to respond to the reflex test or fail to move within 4 hours (up to 24, if possible) must be returned to the water in the same manner as that for actively moving turtles.
4. A turtle is determined to be dead if the muscles are stiff (rigor mortis) and/or the flesh has begun to rot; otherwise, the turtle is determined to be comatose or inactive and resuscitation attempts are necessary.

Any sea turtle so taken must not be consumed, sold, landed, offloaded, transshipped, or kept below deck.

These guidelines are adapted from 50 CFR § 223.206(d)(1). Failure to follow these procedures is therefore a punishable offense under the Endangered Species Act.

Online Resources

REFERENCE THE GRBO AND REVISIONS ONLINE AT:

http://sero.nmfs.noaa.gov/protected_resources/section_7/freq_biop/documents/dredge_bo/nov_19_2003_gom_rbo.pdf

http://sero.nmfs.noaa.gov/protected_resources/section_7/freq_biop/documents/dredge_bo/f13976_02187-sad_grbo_revision_1.pdf

http://sero.nmfs.noaa.gov/protected_resources/section_7/freq_biop/documents/dredge_bo/f13817_revision_2_grbo.pdf

Water Quality and Coastal Zone Consistency Certifications



Florida Department of Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Mimi A. Drew
Secretary

CONSOLIDATED JOINT COASTAL PERMIT AND SOVEREIGN SUBMERGED LANDS AUTHORIZATION

PERMITTEE:

U.S. Army Corps of Engineers
Mobile District Office
c/o Curtis Flakes
109 St. Joseph Street
Mobile, AL 36602

PERMIT INFORMATION:

Permit Number: 0295379-001-JC

Project Name: Lower Pensacola Harbor
Maintenance Dredging

County: Escambia

Issuance Date: December 9, 2010

Expiration Date: December 9, 2020

REGULATORY AUTHORIZATION:

This permit is issued under the authority of Chapter 161 and Part IV of Chapter 373, Florida Statutes (F.S.), and Title 62, Florida Administrative Code (F.A.C.). Pursuant to Operating Agreements executed between the Department of Environmental Protection (Department) and the water management districts, as referenced in Chapter 62-113, F.A.C., the Department is responsible for reviewing and taking final agency action on this activity.

ACTIVITY DESCRIPTION:

The project is to periodically conduct maintenance dredging of the Lower Pensacola Harbor Federal Channel, which includes Reach B (lower Pensacola Bay and Pensacola Pass) and Reaches C and D (entrance channel into Pensacola Pass). The dredging will maintain a bottom width of 500 feet at a depth of -39 feet Mean Lower Low Water (MLLW). This maximum allowed dredge depth includes a design depth of -35 feet MLLW, plus 2 feet of advanced maintenance and 2 feet of allowable overdepth. Most of the dredged material will be placed in the Perdido Key swash zone (Disposal Area #3), seaward of the +3-foot NADV88 contour, and not to exceed an elevation of +3 feet NADV88. Some of the dredged material may also be placed just seaward of the primary sand bar system and landward of the -12-foot NADV88 contour (prior to adjustment). This latter placement area is referenced in the drawings as Nearshore Disposal Area #4.

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Lower Pensacola Harbor Maintenance Dredging
Permit No. 0295379-001-JC
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The requested variance (File No. 0295379-002-BV) from Rule 62-4.244(5)(c), F.A.C., would temporarily establish expanded mixing zones that extend 1,500 meters downcurrent from the dredge and 3,000 meters downcurrent from the point where water discharged from the dredge pipeline (at the swash zone or nearshore placement sites) reenters the Gulf of Mexico. The requested variance from the antidegradation provisions in Rule 62-4.242(2)(a)2.b., F.A.C., would establish a maximum allowable turbidity level of 3.5 NTUs above background for work within Fort Pickens Aquatic Preserve, and Gulf Islands National Seashore, OFWs.

ACTIVITY LOCATION:

The authorized maintenance dredging extends from lower Pensacola Bay, through Pensacola Pass and into the Gulf of Mexico. The nearshore and swash placement areas are located along Perdido Key, between DEP Monuments R-32 and R-64. The overall project is located in Escambia County, Sections 33 and 34, Township 3 South, Ranges 30 and 31 West, Class III Waters, Fort Pickens Aquatic Preserve and Gulf Islands National Seashore, Outstanding Florida Waters.

PROPRIETARY AUTHORIZATION:

The placement of dredged material in the swash zone and nearshore also requires a proprietary authorization, as the activity is located on sovereign submerged lands held in trust by the Board of Trustees of the Internal Improvement Trust Fund (Board of Trustees), pursuant to Article X, Section 11 of the Florida Constitution, and Sections 253.002 and 253.77, F.S. The activity is not exempt from the need to obtain a proprietary authorization. The Board of Trustees delegated the Department the responsibility to review and take final action on this request for proprietary authorization in accordance with Section 18-21.0051, F.A.C., and the Operating Agreements executed between the Department and the water management districts, as referenced in Chapter 62-113, F.A.C. This proprietary authorization has been reviewed in accordance with Chapter 253 and Chapter 258, F.S., Chapter 18-20, Chapter 18-21 and Section 62-312.065, F.A.C., and the policies of the Board of Trustees.

As staff to the Board of Trustees, the Department has reviewed the project described above, and has determined that the placement activity qualifies for a Letter of Consent to use sovereign, submerged lands, as long as the work performed is located within the boundaries as described herein and is consistent with the terms and conditions herein. Therefore, consent is hereby granted to the City of Pensacola, the project's local sponsor, pursuant to Chapter 253.77, F.S., to perform the activity on the specified sovereign submerged lands.

The Department acknowledges that the maintenance dredging falls within one of the federal powers listed in the Submerged Lands Act under 43 USC 1311(d) or 43 USC 1314, and, under those provisions, the U.S. Army Corps of Engineers (Corps) needs no authorization from the Board of Trustees to utilize sovereignty submerged lands for that activity. However, under the provisions of the Coastal Zone Management Act (16 USC 1451-1465), this activity requires Florida's concurrence with a determination of consistency with the sovereignty submerged lands provisions of Florida's approved Coastal Management Program prior to federal approval of the

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proposed activity. The State has determined that the activity is consistent with the sovereignty submerged lands provisions of Florida's approved Coastal Management Program.

COASTAL ZONE MANAGEMENT:

This permit constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Zone Management Act. This permit also constitutes certification of compliance with state water quality standards pursuant to Section 401 of the Clean Water Act, 33 U.S.C. 1341.

AGENCY ACTION:

The above named Permittee is hereby authorized to construct the work outlined in the activity description and activity location of this permit and shown on the approved permit drawings, plans and other documents attached hereto. This agency action is based on the information submitted to the Department as part of the permit application, and adherence with the final details of that proposal shall be a requirement of the permit. **This permit and authorization to use sovereign submerged lands are subject to the General Conditions and Specific Conditions, which are a binding part of this permit and authorization.** Both the Permittee and their Contractor are responsible for reading and understanding this permit (including the permit conditions and the approved permit drawings) prior to commencing the authorized activities, and for ensuring that the work is conducted in conformance with all the terms, conditions and drawings.

GENERAL CONDITIONS:

1. This permit, including its general and specific conditions, must be construed in light of the February 28, 2006 Interagency Coordination Agreement for Civil Works Projects (ICA) between the Department and the Corps. As recognized in the ICA, the Department has the authority to include reasonable conditions in this permit. All of the conditions in this permit, both general and specific, are enforceable to the extent sovereign immunity has been waived under 33 U.S.C. §§ 1323 and 1344(t). The ICA is incorporated herein by reference.
2. All activities approved shall be implemented as set forth in the drawings incorporated by reference and in compliance with the conditions and requirements of this document. The Corps shall notify the Department in writing of any anticipated changes in:
 - a) operational plans;
 - b) project dimensions, size or location;
 - c) ability to adhere to permit conditions;
 - d) project description included in the permit;
 - e) monitoring plans.

If the Department determines that a modification to the permit is required then the Corps shall apply for and obtain the modification. Department approval of the modification shall

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be obtained prior to implementing the change, unless the change is determined by the Department to reduce the scope of work from that authorized under the original permit, and will not affect compliance with permit conditions or monitoring requirements.

3. If, for any reason, the Corps does not comply with any condition or limitation specified herein, the Corps shall immediately provide the Department with a written report containing the following information:
 - a) a description of and cause of noncompliance;
 - b) the period of noncompliance, including dates and times;
 - c) impacts resulting or likely to result from the non-compliance;
 - d) steps being taken to correct the non-compliance; and
 - e) the steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

Compliance with the provisions of this condition shall not preclude the Department from taking any enforcement action allowed under state law with respect to any non-compliance.

4. The Corps shall obtain any applicable licenses, permits, or other authorizations which may be required by federal, state, local or special district laws and regulations. Nothing herein constitutes a waiver or approval of other Department permits or authorizations that may be required for other aspects of the total project.
5. Nothing herein conveys to the Corps or creates in the Corps any property right, any interest in real property, any title to land or water, constitutes State recognition or acknowledgment of title, or constitutes authority for the use of Florida's sovereign submerged lands seaward of the mean high-water line or an established erosion control line, unless herein provided, and the necessary title, lease, easement, or other form of consent authorizing the proposed use has been obtained from the State.
6. Any delineation of the extent of a wetland or other surface water submitted as part of the application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this authorization or a formal determination under section 373.421(2), F.S., provides otherwise.
7. Nothing herein authorizes any entrance upon or activities on property which is not owned or controlled by the Corps or local sponsor, or conveys any vested rights or any exclusive privileges.
8. This document or a copy thereof, complete with all conditions, attachments, modifications, and time extensions shall be kept at the work site of the authorized activity. The Corps shall require the contractor to review this document prior to commencement of the authorized activity.

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9. The Corps specifically agrees to allow Department personnel with proper identification, at reasonable times and in compliance with Corps specified safety standards access to the premises where the authorized activity is located or conducted for the purpose of ascertaining compliance with the terms of this document and with the rules of the Department and to have access to and copy any records that must be kept; to inspect the facility, equipment, practices, or operations regulated or required; and to sample or monitor any substances or parameters at any location reasonably necessary to assure compliance. Reasonable time may depend on the nature of the concern being investigated.
10. At least forty-eight (48) hours prior to the commencement of authorized activity, the Corps shall submit to the Department a written notice of commencement of activities indicating the anticipated start date and the anticipated completion date.
11. If historic or archaeological artifacts such as, but not limited to, Indian canoes, arrow heads, pottery or physical remains, are discovered at any time on the project site, the Corps shall immediately stop all activities in the immediate area which disturb the soil and notify the Department and the State Historic Preservation Officer. In the event that unmarked human remains are encountered during permitted activities, all work shall stop in the immediate area and the proper authorities notified in accordance with Section 872.05, *Florida Statutes*.
12. Within a reasonable time after completion of construction activities authorized by this permit, the Corps shall submit to the Department a written statement of completion. This statement shall notify the Department that the work has been completed as authorized and shall include a description of the actual work completed. The Department shall be provided, if requested, a copy of any as-built drawings required of the contractor or survey performed by the Corps.

SPECIFIC CONDITIONS:

1. No work shall be conducted until and unless the Department issues a Final Order of Variance (File No. 0295379-002-BV) from Rule 62-4.244(5)(c), F.A.C. to establish an expanded mixing zone and Rules 62-4.242(2)(a)2.b., F.A.C., to establish a maximum allowable turbidity level above background for work within Outstanding Florida Waters (OFW) for this project.
2. All reports or notices relating to this permit shall be sent to the Department of Environmental Protection, Bureau of Beaches and Coastal Systems, JCP Compliance Officer, 3900 Commonwealth Boulevard, Mail Station 300, Tallahassee, Florida 32399-3000 (e-mail address: JCP.Compliance@dep.state.fl.us).

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3. There are two cultural resource sites in the nearshore disposal area extending from 500 feet to 5,700 feet south of Perdido Key, involving an historic shipwreck (Concrete Ballast Wreck SES2995) and an unrecorded historic barge wreck. A protective buffer zone, with a 1,000-foot radius, shall be established around these sites.
4. **Pre-Construction Conference.** The Permittee shall conduct a pre-construction conference to review the specific conditions and monitoring requirements of this permit with Permittee's contractors, the engineer of record and the JCP Compliance Officer (or designated alternate) prior to each construction event. In order to ensure that appropriate representatives are available, at least twenty-one (21) days prior to the intended commencement date for the permitted construction, the Permittee is advised to contact the Department, and the other agency representatives listed below:

DEP, Bureau of Beaches & Coastal Systems
JCP Compliance Officer
Mail Station 300
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000
phone: (850) 414-7716
e-mail: JCP.Compliance@dep.state.fl.us

DEP NW District Office
Submerged Lands & Environmental Resources
160 Governmental Center
Pensacola, Florida 32502-5794
phone: (850) 595-8300

Imperiled Species Management Section
Florida Fish & Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
phone: (850) 922-4330
fax: (850) 921-4369 or email: marine.turtle@myfwc.com

Ft. Pickens Aquatic Preserve
Shelley Alexander, Aquatic Preserve Manager
1600 Garcon Point Road
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Gulf Islands National Seashore
Daniel R. Brown
1801 Gulf Breeze Parkway

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Gulf Breeze, Florida 32563
phone: (850) 934-2604

The Permittee is also advised to schedule the pre-construction conference at least a week prior to the intended commencement date. At least seven (7) days in advance of the pre-construction conference, the Permittee shall provide written notification, advising the participants (listed above) of the agreed-upon date, time and location of the meeting, and also provide a meeting agenda and a teleconference number.

5. **Pre-Construction Submittals.** At least fourteen (14) days prior to the date of the pre-construction conference (as required above), the Permittee shall submit the final plans and specifications for this project, which must be consistent with the activity description of this permit and the approved permit drawings. The Permittee shall point out any deviations from the activity description or the approved permit drawings, and any significant changes would require a permit modification. Submittal shall include one (1) hardcopy (sized 11 inches by 17 inches or greater, with all text legible) and one (1) electronic copy of the final plans and specifications. The plans and specifications shall be accompanied by a letter indicating the project name, the permit number, the type of construction activity, the specific type of equipment to be used, the anticipated volume of material to be moved (if applicable) and the anticipated schedule. Further, the Permittee shall specify any anticipated sites that will be used (such as a disposal or re-use location) and appropriate contact information for those facilities. The final plans and specifications submitted under this condition must comply with all conditions set forth in this permit.

Additionally, the names and qualifications of the individuals who will conduct the turbidity monitoring shall be submitted to the Department. These individuals must be independent of the dredging contractor and must have experience collecting and measuring turbidity for navigational dredging and beach placement projects.

6. Sediment quality will be assessed as outlined in the approved Sediment QA/AC Plan, dated April 2009 (attached). Any occurrences of unacceptable material will be handled according to the protocols set forth in the approved Sediment QA/QC Plan. The sediment testing results will be submitted to FDEP within 90 days following the completion of dredging and sediment placement activities.
7. Pursuant to Section 161.142(2), F. S., the Department shall maintain a current estimate of the quantities of beach-compatible sand from maintenance dredging of inlet systems for purposes of prioritizing, planning and permitting of inlet management activities. As provided for in General Permit Condition No. 12, the Corps shall submit to the Department a written statement of completion that includes a description of the actual work completed. For the maintenance dredging activities authorized by this permit, the

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Corps shall describe the location (entrance channel, advance maintenance area(s), intracoastal waterway) and estimated volume of material dredged from each location; and the location (beach with specific FDEP reference monuments; nearshore zone) and estimated volume of material placed within each location.

8. The National Parks Service (NPS) will conduct all necessary marine turtle and shorebird protection and monitoring requirements of this permit on behalf of the Permittee. In the event that the NPS does not conduct all necessary marine turtle and shorebird protection and monitoring requirements, the Permittee is still responsible for those measures specified by the applicable U. S. Fish and Wildlife Service Biological Opinion through the end of the Corps' fiscal year.
9. The Permittee and the Department, within their respective authorities and funding, shall ensure that beach compatible dredged material is placed on Florida's beaches, consistent with Florida's beach management plan adopted pursuant to Chapter 161, F.S. and other beneficial uses criteria as may be specified by the Department and applicable federal standards.

Wildlife Protection Conditions

10. Swash zone placement shall be started after October 31 and be completed before May 1.
11. For dredged material placement in the swash zone (at or below the +3 foot contour) or submerged littoral zone, monthly wildlife protection surveys shall be conducted (by the NPS on behalf of the Corps) for as long as the dredged material remains on the beach, but not past the end of the Corps' fiscal year.
12. All derelict concrete, metal, and coastal armoring geotextile material and other debris shall be removed from the beach prior to any sand placement to the maximum extent possible. Debris removal shall be conducted during daylight hours only.
13. The permittee shall develop plans for transporting people, equipment, fuel, etc, along the Gulf of Mexico beachfront between Gulf Islands National Seashore (GUIS)-Perdido Key paved roads and parking areas and the work site. The goal will be to use UTVs as much as possible minimizing the need for standard 4-wheel drive vehicles usage.
14. All Perdido Key Beach mouse habitat will be identified and marked for avoidance during construction. Existing beach access points on GUIS shall be used and marked appropriately including the beachfront travel corridor to the work site for transport of equipment and personnel along the beachfront. Vegetative areas shall be marked and delineated for avoidance as needed.

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15. New or expanded beach accesses that impact vegetated dunes shall be replanted within 3 months following project completion. The habitat restoration shall consist of restoring the dune topography and planting with at least three species of appropriate native dune vegetation (i.e., native to coastal dunes in the respective county and grown from plant stock from that region of Florida). Seedlings shall be at least 1 inch by 1 inch with a 2.5-inch pot. Planting shall be on 18-inch centers throughout the created dune; however, 24-inch centers may be acceptable depending on the area to be planted. Vegetation shall be planted with an appropriate amount of fertilizer and anti-desiccant material, as appropriate, for the plant size. No sand stabilizer material (coconut matting or other material) shall be used in the dune restoration. The plants may be watered without installing an irrigation system. In order for the restoration to be considered successful, 80 percent of the total planted vegetation shall be documented to survive six months following planting of vegetation. If the habitat restoration is unsuccessful, the area shall be replanted following coordination with the U.S. Fish & Wildlife Service, and written confirmation provided to the JCP Compliance Officer.
16. A daily marine turtle nest survey of the nesting beach in the vicinity of the project (including areas of beach access) shall be conducted (by the NPS on behalf of the Corps) starting May 1 and continue until September 1, in accordance with the following protocols:
 - a. Nests deposited within the construction area shall be marked and left in place unless other factors threaten the success of the nest. Such nests will be marked and the actual location of the clutch determined.
 - b. A circle with a radius of ten (10) feet, centered at the clutch, shall be marked by stake and survey tape or string. No construction activities shall enter this circle and no adjacent construction shall be allowed which might directly or indirectly disturb the area within the staked circle.
17. It is the responsibility of the Permittee to ensure that the project area and access sites are surveyed for marine turtle nesting activity. All nesting surveys, nest relocations screening or caging activities etc. shall be conducted only by persons with prior experience and training in these activities and who is duly authorized to conduct such activities through a valid permit issued by the Fish and Wildlife Conservation Commission (FWC), pursuant to Florida Administrative Code 68E-1.
18. Visual surveys for escarpments along the beach fill area shall be made immediately after completion of project construction and throughout the Corps' physical monitoring of the project, if the mechanically placed sand still remains on the beach. It is the Corps' responsibility to coordinate with the NPS for any scarps that should be leveled. In addition, weekly surveys of the project area shall be conducted during the two nesting seasons following completion of fill placement as follows:

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- a. The number of escarpments and their location relative to DNR-DEP reference monuments shall be recorded during each weekly survey and reported relative to the length of the beach surveyed (e.g., 50% scarps). Notations on the height of these escarpments shall be included (0 to 2 feet, 2 to 4 feet, and 4 feet or higher) as well as the maximum height of all escarpments.
 - b. Escarpments that interfere with sea turtle nesting or that exceed 18 inches in height for a distance of 100 feet shall be leveled to the natural beach contour by April 15. Any escarpment removal shall be reported relative to R-monument.
 - c. If weekly surveys during the marine turtle nesting season document subsequent reformation of escarpments that exceed 18 inches in height for a distance of 100 feet, the FWC shall be contacted immediately to determine the appropriate action to be taken. Upon written notification, the permittee shall level escarpments in accordance with mechanical methods prescribed by the FWC.
19. The Permittee shall arrange a meeting between the Department, the FWC, FWS and the person with the NPS who is responsible for marine turtle nest monitoring prior to the marine turtle nesting season following construction. At least 15 days advance notice shall be provided prior to conducting this meeting. This will provide an opportunity for explanation and/or clarification of the sea turtle protection measures.
 20. Reports on all nesting activity shall be provided for the initial nesting season for as long as sand remains in the nearshore or on the beach, for up to the end of the Corps' fiscal year. Monitoring of nesting activity in the seasons following construction shall include daily surveys and any additional measures authorized by the FWC. Reports submitted shall include daily report sheets noting all activity, nesting success rates, hatching success of all relocated nests, hatching success of a representative sampling of nests left in place (if any), dates of construction and names of all personnel involved in nest surveys and relocation activities. Data should be reported separately for the nourished areas and for an equal length of adjacent beach that is not nourished in accordance with the attached Table. Summaries of nesting activity shall be submitted in electronic format (Excel spreadsheets). All reports should be submitted by January 15 of the following year.

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Table 1. Marine Turtle Monitoring for Beach Restoration Projects

Characteristic	Parameter	Measurement	Variable
Nesting Success	False crawls - number	Visual assessment of all false crawls	Number and location of false crawls in fill areas and nonfill areas; any interaction of the turtle with obstructions, such as groins, seawalls, or scarps, should be noted.
	False crawl - type	Categorization of the stage at which nesting was abandoned	Number in each of the following categories: emergence-no digging, preliminary body pit, abandoned egg chamber.
	Nests	Number	The number of marine turtle nests in filled and nonfilled areas should be noted. If possible, the location of all marine turtle nests shall be marked on map of project, and approximate distance to sea walls or scarps measured using a meter tape. Any abnormal cavity morphologies should be reported as well as whether turtle touched groins, seawalls, or scarps during nest excavation
		Lost Nests	The number of nests lost to inundation, erosion or the number with lost markers that could not be found.
	Lighting Impacts	Disoriented sea turtles	The number of disoriented hatchlings and adults shall be documented and reported in accordance with existing FWC protocol for disorientation events.
Reproductive Success	Emergence & hatching success	Standard survey protocol	Numbers of the following: unhatched eggs, depredated nests and eggs, live pipped eggs, dead pipped eggs, live hatchlings in nest, dead hatchlings in nest, hatchlings emerged, disoriented hatchlings, depredated hatchlings per each nest.

21. Upon locating a dead, injured, or sick endangered or threatened sea turtle specimen, initial notification must be made to the FWC at 1-888-404-FWCC. Care should be taken in handling sick or injured specimens to ensure effective treatment and care and in handling dead specimens to preserve biological materials in the best possible state for later analysis of cause of death. In conjunction with the care of sick or injured endangered or threatened species or preservation of biological materials from a dead animal, the finder has the responsibility to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed.

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22. In the event a hopper dredge is utilized, the following requirements shall be met in addition to the Terms and Conditions of the NMFS Regional Biological Opinion for Hopper Dredging in the Gulf of Mexico:
- a. Handling of sea turtles captured during hopper dredging projects shall be conducted only by persons with prior experience and training in these activities and who is duly authorized to conduct such activities through a valid permit issued by the Florida Fish and Wildlife Conservation Commission (FWC), pursuant to Florida Administrative Code 68E-1.
 - b. *Dredging Pumps*: Standard operating procedure shall be that dredging pumps shall be disengaged by the operator when the dragheads are not firmly on the bottom, to prevent impingement or entrainment of sea turtles within the water column. This precaution is especially important during the cleanup phase of dredging operations.
 - c. *Sea Turtle Deflecting Draghead*: A state-of-the-art rigid deflector draghead must be used on all hopper dredges in all Gulf of Mexico channels at all times of the year.
 - d. The Sea Turtle Stranding and Salvage Network (STSSN) Coordinator, Dr. Allen Foley, shall be notified at (904) 573-3930 of the start-up and completion of hopper dredging operations.
 - e. Relocation trawling shall be undertaken at all projects where any of the following conditions are met; however, other ongoing projects not meeting these conditions are not required to conduct relocation trawling:
 - i. Two or more turtles are taken in a 24-hour period in the project.
 - ii. Four or more turtles are taken in the project.
 - f. The Permittee shall fax (850-921-6988) or e-mail (Meghan.koperski@MyFWC.com) weekly reports to the Imperiled Species Management section on Friday each week that relocation trawling is conducted in Florida water. These faxes shall include: the species and number of turtles captured in Florida waters, general health, and release information. A summary of all turtles captured in Florida waters, including all measurements, the latitude and longitude (in decimal degrees) of captures and tow start-stop points, and times for the start-stop points of the tows, including those tows on which no turtles are captured shall be submitted to the ISM by January 15 of the following year.
23. *Shorebird Surveys*. Shorebird surveys should be conducted by trained, dedicated individuals (Shorebird Monitor) with proven shorebird identification skills and avian

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survey experience. Credentials of the Shorebird Monitor will be submitted to the FWC Regional Biologist for review and approval. Shorebird Monitors will use the following survey protocols.

24. *Nesting Season Surveys.* Shorebird Monitors should review and become familiar with the general information and data collection protocols outlined on the FWC's Beach-Nesting Bird Website (<http://myfwc.com/shorebirds/>). An outline of what data should be collected, including downloadable field data sheets, is available on the website.
 - a. The nesting season is generally 1 April – 1 September, but some nesting may occur through September. In addition, the imperiled snowy plover (*Charadrius alexandrinus*) may nest as early as February along the west coast and panhandle of Florida.
 - b. Nesting season surveys shall begin on April 1 (or February 15 in snowy plover habitat) or 10 days prior to project commencement (including surveying activities and other pre-construction presence on the beach), whichever is later, and be conducted daily throughout the construction period or through August, whichever is earlier. Weekly surveys of the project site shall continue through August or through fledgling or loss of identified nests or hatchlings, whichever is later.
 - c. Nesting season surveys shall be conducted in all potential beach-nesting bird habitat within the project boundaries that may be impacted by construction or pre-construction activities during the nesting season. Portions of the project in which there is no potential for project-related activity during the nesting season may be excluded.
 - d. Surveys for detecting new nesting activity will be completed on a daily basis prior to movement of equipment, operation of vehicles, or other activities that could potentially disrupt nesting behavior or cause harm to the birds or their eggs or young.
 - e. Surveys should be conducted by traversing the length of the project area and visually inspecting, using binoculars or spotting scope, for the presence of shorebirds exhibiting breeding behavior.
 - f. If an ATV or other vehicle is needed to cover large project areas, the vehicle must be operated at a speed <6 mph, shall be run at or below the high-tide line, and the Shorebird Monitor will stop at no greater than 200 meter intervals to visually inspect for nesting activity.
25. Once breeding is confirmed by the presence of a scrape, eggs, or young, the Bird Monitor will notify the Regional Nongame Biologist of the FWC at (561) 648-3205 within 24 hours.

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- a. All breeding activity will be reported to the Beach-Nesting Bird website within one week of data collection.
 - b. Observations of non-breeding shorebirds should be reported to the Shorebird-Seabird Occurrence Database, as described below.
26. *Non-Breeding Shorebird Surveys.* Data collected on non-breeding shorebirds should be compatible with, and reported to, the Shorebird-Seabird Occurrence Database (<http://myfwc.com/shorebirds/BNB/>).
- a. Surveys for non-breeding shorebirds should begin 14 days prior to construction commencement and be conducted in accordance with the survey protocol outlined by the NPS until the end of the Corps' fiscal year. Data collected during these surveys will provide valuable information on the use of nourished beaches to shorebirds.
 - b. Survey for non-breeding shorebirds will include all potential shorebird habitat within the project boundary.
 - c. Data should be entered into the database within one month of collection.
27. *Buffer Zones and Travel Corridors.* Within the project area, the Permittee shall establish a 300 ft-wide buffer zone around any location where shorebirds have been engaged in nesting behavior, including territory defense. Any and all construction activities, including movement of vehicles, should be prohibited in the buffer zone.
- a. The width of the buffer zone shall be increased if birds appear agitated or disturbed by construction or other activities in adjacent areas.
 - b. Site-specific buffers may be implemented upon approval by FWC as needed.
 - c. Reasonable and traditional pedestrian access should not be blocked where nesting birds will tolerate pedestrian traffic. This is generally the case with lateral movement of beach-goers walking parallel to the beach at or below the highest tide line. Pedestrian traffic may also be tolerated when nesting was initiated within 300 feet of an established beach access pathway. The permittee shall work with FWC staff to determine if pedestrian access can be accommodated without compromising nesting success.
 - d. Designated buffer zones must be posted with clearly marked signs around the perimeter. If pedestrian pathways are approved within the 300-foot buffer zone, these should be clearly marked. These markings shall be maintained until nesting is

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- completed or terminated. In the case of solitary nesters, nesting is not considered to be completed until all chicks have fledged.
- e. No construction activities, movement of vehicles, or stockpiling of equipment shall be allowed within the buffer area.
28. FWC-approved travel corridors should be designated and marked outside the buffer areas. Heavy equipment, other vehicles, or pedestrians may transit past nesting areas in these corridors. However, other activities such as stopping or turning shall be prohibited within the designated travel corridors adjacent to the nesting site.
- a. Where such a travel corridor must be established within the project area it should avoid critical areas for shorebirds (known nesting sites, wintering grounds, FWC-designated Critical Wildlife Areas, and USFWS-designated critical piping plover habitat) as much as possible, and be marked with signs clearly delineating the travel corridor from the shorebird buffer areas described above.
- b. To the degree possible, the permittee should maintain some activity within these corridors on a daily basis, without directly disturbing any shorebirds documented on site or interfering with sea turtle nesting, especially when those corridors are established prior to commencement of construction. Passive methods to modify nesting site suitability must be approved by FWC Regional Biologist for that region.
29. *Notification.* If shorebird nesting occurs within the project area, a bulletin board will be placed and maintained in the construction area with the location map of the construction site showing the bird nesting areas and a warning, clearly visible, stating that "BIRD NESTING AREAS ARE PROTECTED BY THE FLORIDA THREATENED AND ENDANGERED SPECIES ACT AND THE STATE AND FEDERAL MIGRATORY BIRD ACTS".
30. *Beach Contours.* All scarp removal should be done outside the shorebird nesting season. It is the responsibility of the contractors to avoid tilling or scarp removal in areas where nesting birds are present.
- a. A relatively even surface, with no deep ruts or furrows, shall be created during tilling. To do this, chain-linked fencing or other material shall be dragged over those areas as necessary after tilling.
- b. The slope between the mean high water line and the mean low water line must be maintained in such a manner as to approximate natural slopes.
31. *Placement of Equipment and Sand.* If it will be necessary to extend construction pipes past a known shorebird nesting site or over-wintering area for piping plovers, then

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whenever possible those pipes should be placed landward of the site before birds are active in that area. No pipe or sand shall be placed seaward of a known shorebird nesting site during the shorebird nesting season.

Manatee Protection Conditions

32. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The Permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.
33. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
34. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.
35. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
36. Any collision with or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336).
37. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the Permittee upon completion of the project. Awareness signs that have already been approved for this use by the Florida Fish and Wildlife Conservation Commission (FWC) must be used (see MyFWC.com). One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8 1/2" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities.

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MONITORING REQUIRED:

38. Water Quality - Turbidity - Nephelometric Turbidity Units (NTUs)

Dredging areas

Frequency: For hopper dredge: During each hopper dredge cycle during daylight hours, after the plume reaches the edge of the mixing zone.

For hydraulic pipeline dredge: Every four hours during daylight hours, beginning at least two hours after dredging begins.

Location: Background: Five samples measured at least 5 meters apart (pooled to determine the mean background level for the sampling event), at mid-depth, at least 150 meters up-current from the point of excavation, clearly outside of any turbidity plume.

Compliance: At the point where the densest portion of the turbidity plume intersects the periphery of the mixing zone (1,500 meters down-current from the dredge), at mid-depth.

Additional samples will be collected in the densest portion of the turbidity plume, at intermediate distances within the mixing zone (150, 500, and 1,000 meters from the dredge), at mid-depth. These measurements will be used to calibrate the size of the mixing zone for future events.

Disposal areas

Frequency: At least once during each hopper discharge cycle during daylight hours, while the densest part of the turbidity plume crosses the edge of the mixing zone. When using a hydraulic pipeline dredge, every four hours during daylight hours, beginning approximately an hour after the turbidity plume passes the edge of the mixing zone.

Location: Background: Five samples measured at least 5 meters apart (pooled to determine the mean background level for the sampling event), at mid-depth, at least 150 meters up-drift from the entire approved placement area, clearly outside of any turbidity plume, taken at a distance offshore to correspond with the distance of the compliance sample.

Compliance: At the point where the densest portion of the turbidity plume intersects the periphery of the mixing zone (3,000 meters down-current from the point where return water from the discharge pipe enters the Gulf of Mexico), at mid-depth.

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Additional samples shall be collected in the densest portion of the plume, at intermediate distances within the mixing zone (150, 500, 1,000, 1,500, 2,000, and 2,500 meters from the point where return water from the discharge pipe enters the Gulf of Mexico), at mid-depth. These measurements will be used to calibrate the size of the mixing zone for future events.

All monitoring data shall be submitted within one week of analysis with documents containing the following information: (1) permit number; (2) dates of sampling and analysis; (3) a statement describing the methods used in collection, handling, storage and analysis of the samples; (4) a map indicating the sampling locations; (5) a statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection and accuracy of the data.

Monitoring reports shall also include the following information for each sample that is taken:

- (a) time of day samples taken;
- (b) depth of water body;
- (c) depth of sample;
- (d) antecedent weather conditions;
- (e) tidal stage and direction of flow; and
- (f) wind direction and velocity.

Determination of Compliance within Fort Pickens Aquatic Preserve and Gulf Islands National Seashore: The compliance locations given above shall be considered the limits of the temporary mixing zone for turbidity allowed during construction. If monitoring within the Fort Pickens Aquatic Preserve or Gulf Islands National Seashore reveals the turbidity level at the compliance site is greater than 3.5 NTUs above the mean of the associated background turbidity levels for that sampling event, the associated activity (dredging or filling) shall cease **immediately** and not resume until corrective measures have been taken and turbidity has returned to acceptable levels. Any such occurrence shall also be immediately reported to the JCP Compliance Officer in Tallahassee at (850) 414-7716 or JCPCompliance@dep.state.fl.us and the Department's Northwest District office in Pensacola at (850) 595-8300. The monitoring reports shall indicate each exceedance, the duration of the shut-down, and the corrective actions.

Any project-associated discharge other than dredging, placement in the swash zone or placement in the nearshore disposal site (e.g., scow leakage or runoff from temporary containment area) should be monitored as close to the source as possible every hour until compliance turbidity levels return to 3.5 NTUs above the mean of the associated background turbidity levels or until otherwise directed by the Department. The Permittee shall notify the Department, by separate email to the JCP Compliance Officer, of such an event within 24 hours of the time the Permittee

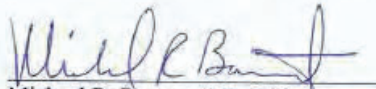
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first becomes aware of the discharge. The subject line of the email shall state "PROJECT-ASSOCIATED DISCHARGE-OTHER", and include the Project Name and the Permit Number.

Monitoring reports shall be submitted to the DEP Bureau of Beaches & Coastal Systems, JCP Compliance Officer, via email to JCPCCompliance@dep.state.fl.us and to the DEP NW District office. Failure to submit reports in a timely manner constitutes grounds for revocation of the permit. When submitting this information to the DEP, please clearly include, at the top of each page or as a cover page to the submittal: **"This information is provided in partial fulfillment of the monitoring requirements in Permit No. 0295379-001-JC (Lower Pensacola Harbor Maintenance Dredging)."**

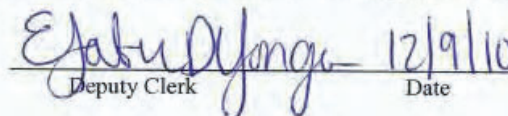
Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION


Michael R. Barnett, P.E., Chief
Bureau of Beaches and Coastal Systems

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


Deputy Clerk Date

Prepared by Lainie Edwards, Ph.D.

Attachments: Approved Permit Drawings (6 pages)
QA/QC Plan (approved on April 2009)



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

August 26, 2015

Mr. Curtis M. Flakes, Chief
Planning and Environmental Division
U.S. Army Corps of Engineers, Mobile District
109 St. Joseph Street
Mobile, Alabama 36602

Permit Modification No. 0295379-003-JN
Permit No. 0295379-001-JC, Escambia County
Lower Pensacola Harbor Maintenance Dredging Minor Modification

Dear Mr. Flakes:

Your request to modify Permit No. 0295379-001-JC was received on June 26, 2015, and has been reviewed by Florida Department of Environmental Protection (Department) staff. The proposed permit modification is to provide advanced maintenance widening of portions of the federally authorized Lower Pensacola Harbor Federal navigation channel that exhibit excessive shoaling.

Permitting History:

On June 23, 2003, the Department issued a 3-year Joint Coastal Permit (JCP) (Permit No. 0206516-001-JC) to the U.S. Navy to maintain a portion of the Pensacola Naval Air Station (NAS) channel (Stations 0+00 to 24+50N) by dredging approximately 200,000 cubic yards of material to a maximum depth of -48 feet mean lower low water (MLLW). Beach-compatible sand was to be placed in the nearshore portion of Perdido Key Beach, no deeper than the -20-foot depth contour.

Variance No. 0206516-002-EV was also granted on June 23, 2003, allowing a 1500-meter mixing zone from the dredge and disposal areas, for the construction activities within Fort Pickens Aquatic Preserve.

www.dep.state.fl.us

Notice of Permit Modification
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On September 20, 2005, the Department issued Permit Modification No. 0206516-003-JC to the Navy to extend the limits of the designated dredge area southward by approximately 700 feet. That permit expired on June 23, 2006.

On April 25, 2005, the Department issued Wetland Resource Permit No. 0241626-001-DF to the U.S. Army Corps of Engineers (Corps) for 10 years. That permit authorized maintenance dredging of a stretch of the federal channel network extending from the lower portion of Pensacola Bay to the Pensacola Harbor, with placement of the non-beach-compatible dredged material in the Pensacola ODMDS, which is located approximately 11 miles south of Pensacola Pass. The permit did not include the entrance channel reach, from the Gulf of Mexico to lower Pensacola Bay because that portion of the channel contained beach-quality sand, and that dredging would require a JCP.

On November 6, 2008, the Department issued Wetland Resource Permit No. 0247518-002-DF, to the U.S. Navy, Pensacola NAS, to authorize maintenance dredging of the Pensacola NAS turning basin and those portions of the Pensacola Naval Channel that contain non-beach-quality material (Segment A), as well as placement of the material in the Pensacola ODMDS. The navigational channel was permitted to be maintained up to the full width of 800 feet (including the turning basin area) and dredged to a maximum depth of -46 feet MLLW.

Variance No. 0247518-003-EV was granted January 7, 2009, to allow an anti-degradation variance of 3.5 NTUs within the Fort Pickens Aquatic Preserve, during the project activities for Permit No. 0247518-002-DF.

On November 7, 2008, Permit No. 0247518-001-JC was issued to Pensacola NAS for a duration of 10-years, to maintain the navigation channel to the previously authorized depth and width dimensions in order to ensure safe passage of ocean-going Navy vessels that travel through the channel from the Gulf of Mexico to Pensacola NAS. That included the dredging of beach-quality sand from the existing Pensacola Pass federal navigation channel, with placement of the dredged material on the beaches of Perdido Key (from R-32 to R-64 +s 265 feet) and Santa Rosa Island (from R-84.5 to R-107). The channel was authorized to be maintained up to the full width of 800 feet. The segments of the channel that bend around Santa Rosa Island, and connect the Gulf of Mexico to Pensacola Bay (between Stations 148+40 and 226+00) were authorized for a dredge width of 1,600 feet in order to allow the large Navy vessels an ample turning radius. The segment of the channel that extend into the Gulf of Mexico was authorized to be dredged to a maximum depth of -48 feet (MLLW), and the segment within Pensacola Bay was authorized to be dredged to a maximum depth of -46 feet (MLLW).

On December 19, 2008, the Department granted Variance No. 0247518-004-EV to the Pensacola Naval Air Station, in association with Permit No. 0247518-001-JC, to allow an expanded mixing zone of 1,500 meters down current from the dredge and 3,000 meters down-current from the point of discharge at the disposal site, in addition to allowing an anti-degradation variance of 3.5 NTUs within the Fort Pickens Aquatic Preserve.

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Current Permit

On December 9, 2010, the Department issued a 10-year Joint Coastal Permit (No. 0295379-001-JC) to the U.S. Army Corps of Engineers (Corps) to periodically conduct maintenance dredging of the Lower Pensacola Harbor Federal Channel (Reaches B, C and D). The channel was authorized to be maintained at a bottom width of 500 feet and a maximum depth of -39 feet MLLW. Dredged material was to be placed in the Perdido Key swash zone (Disposal Area #3), seaward of the +3-foot NAVD contour, and not to exceed an elevation of +3 feet NAVD. Some of the dredged material could also be placed just seaward of the primary sand bar system and landward of the -12-foot NAVD contour (prior to adjustment - Nearshore Disposal Area #4).

On December 9, 2010, the Department granted Variance No. 0295379-002-BV to the Corps, in association with Permit No. 0295379-001-JC, to allow expanded mixing zones that extend 1,500 meters down current from the dredge and 3,000 meters down current from the point of discharge at the nearshore placement sites; as well as an anti-degradation variance of the maximum allowable turbidity level (3.5 NTUs above background) for work within Fort Pickens Aquatic Preserve, and Gulf Islands National Seashore, Outstanding Florida Waters (OFWs).

For additional background, please see the *CONSOLIDATED NOTICE OF INTENT TO ISSUE JOINT COASTAL PERMIT, VARIANCE AND AUTHORIZATION TO USE SOVEREIGN SUBMERGED LANDS* for Permit No. 0295379-001-JC and Variance No. 0295379-002-BV at the following website:

[ftp://ftp.dep.state.fl.us/pub/ENV-PRMT/escambia/issued/0295379_Lower_Pensacola_Harbor_Navigation_Channel_Maintenance_Dredging/001_JC/Intent/Lower%20Pensacola%20Intent%200295379-001-JC%20\(11-12-10\).pdf](ftp://ftp.dep.state.fl.us/pub/ENV-PRMT/escambia/issued/0295379_Lower_Pensacola_Harbor_Navigation_Channel_Maintenance_Dredging/001_JC/Intent/Lower%20Pensacola%20Intent%200295379-001-JC%20(11-12-10).pdf)

Justification

The proposed minor modification is for advanced maintenance widening of three portions of the federally authorized Lower Pensacola Harbor Federal navigation channel. For approximately 1 mile of the channel through Pensacola Pass, an additional 100 feet will be dredged on the eastern side of the channel. For approximately one mile of the upper entrance channel (just outside of Pensacola Pass), an additional 100 feet will be dredged on the western side of the channel. For approximately one mile of the lower (outer) section of the entrance channel, an additional 50 feet will be dredged on both sides of the channel. These proposed dimensions are already authorized in Permit No. 0247518-001-JC, which the Department issued to the Pensacola Naval Air Station.

These areas exhibit excessive shoaling, and an engineering analyses conducted by the Corps indicated that widening the channel at these strategic locations would reduce the frequency of

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maintenance dredging required to ensure the safe passage of vessels. Additionally, updates to contact information in FWC permit conditions will be made.

Staff Assessment

Given that a) the dimensions of the Lower Pensacola Harbor Federal navigation channel and the proposed widening are within those currently permitted for the Pensacola Navy Channel (Permit No. 0247518-001-JC); and b) the placement of dredged material will remain the same as defined in both the current Lower Pensacola Harbor Federal navigation channel permit (No. 0295379-001-JC) and the Pensacola Navy Channel permit (No. 0247518-001-JC), there are no anticipated additional impacts to resources. The U.S. Fish & Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) also concur that the proposed changes will not change their existing Biological Opinions.

The Activity Description shall be revised as follows (~~strikethroughs~~ are deletions, underlines are additions):

The project is to periodically conduct maintenance dredging of the Lower Pensacola Harbor Federal Channel, which includes Reach B (lower Pensacola Bay and Pensacola Pass) and Reaches C and D (entrance channel into Pensacola Pass). The dredging will maintain a bottom width of 500 feet at a depth of -39 feet Mean Lower Low Water (MLLW). This maximum allowed dredge depth includes a design depth of -35 feet MLLW, plus 2 feet of advanced maintenance depth and 2 feet of allowable overdepth. Advanced maintenance widening is authorized to occur along three segments of the channel: between stations 148+42 and 195+00 an additional 100 feet of the channel is authorized to be dredged on the western side; between stations 206+00 and 235+00 an additional 100 feet of the channel is authorized to be dredged on the eastern side; and between stations 235+00 and 300+00 an additional 50 feet of the channel is authorized to be dredged on both the western and eastern sides. Most of the dredged material will be placed in the Perdido Key swash zone (Disposal Area #3), seaward of the +3-foot NAVD88 contour, and not to exceed an elevation of +3 feet NAVD88. Some of the dredged material may also be placed just seaward of the primary sand bar system and landward of the -12-foot NAVD88 contour (prior to adjustment). This latter placement area is referenced in the drawings as Nearshore Disposal Area #4.

The requested variance (File No. 0295379-002-BV) from Rule 62-4.244(5)(c), F.A.C., would temporarily establish expanded mixing zones that extend 1,500 meters downcurrent from the dredge and 3,000 meters downcurrent from the point where water discharged from the dredge pipeline (at the swash zone or nearshore placement sites) reenters the Gulf of Mexico. The requested variance from the antidegradation provisions in Rule 62-4.242(2)(a)2.b., F.A.C., would establish a maximum allowable turbidity level of 3.5 NTUs above background for work within Fort Pickens Aquatic Preserve, and Gulf Islands National Seashore, OFWs.

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The specific conditions shall be revised as follows (~~strikethroughs~~ are deletions, underlines are additions):

3. There are two cultural resource sites in the nearshore disposal area extending from 500 feet to 5,700 feet south of Perdido Key, involving ~~an~~ historic shipwreck (Concrete Ballast Wreck 8ES2995) and an unrecorded historic barge wreck. A protective buffer zone, with a 1,000-foot radius, shall be established around these sites. Additionally, if prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery, and the Permittee shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section at (850)-245-6333. Project activities shall not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, Florida Statutes.
4. **Pre-Construction Conference.** The Permittee shall conduct a pre-construction conference to review the specific conditions and monitoring requirements of this permit with Permittee's contractors, the engineer of record and the JCP Compliance Officer (or designated alternate) prior to each construction event. In order to ensure that appropriate representatives are available, at least twenty-one (21) days prior to the intended commencement date for the permitted construction, the Permittee is advised to contact the Department, and the other agency representatives listed below:

DEP's JCP Compliance Officer
e-mail: JCPCompliance@dep.state.fl.us

~~DEP Bureau of Beaches & Coastal Systems~~
~~JCP Compliance Officer~~
~~Mail Station 356600~~
~~3900 Commonwealth Boulevard~~
~~Tallahassee, Florida 32399-3000~~
~~phone: (850) 414-7716~~
~~e-mail: JCPCompliance@dep.state.fl.us~~

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DEP NW District Office
Submerged Lands & Environmental Resources
160 W. Governmental Street Center, Suite 308
Pensacola, Florida 32502-574094
phone: (850) 595-8300

Imperiled Species Management Section
Florida Fish & Wildlife Conservation Commission
620 South Meridian Street
Tallahassee, Florida 32399-1600
phone: (850) 922-4330
fax: (850) 921-4369 or email: marine.turtle@myfwc.com

Ft. Pickens Aquatic Preserve
Beth Fugate, Aquatic Preserve Manager
Florida Coastal Office
160 Government Center
Pensacola, FL 32501
phone: (850) 595-0683-or email: Beth.L.Fugate@dep.state.fl.us

Ft. Pickens Aquatic Preserve
Shelley Alexander, Aquatic Preserve Manager
1600 Gargen Point Road
Milton, FL 32583
phone: (850) 983-5359

Gulf Islands National Seashore
Daniel R. Brown
1801 Gulf Breeze Parkway
Gulf Breeze, Florida 32563
phone: (850) 934-2604

The Permittee is also advised to schedule the pre-construction conference at least a week prior to the intended commencement date. At least seven (7) days in advance of the preconstruction conference, the Permittee shall provide written notification, advising the participants (listed above) of the agreed-upon date, time and location of the meeting, and also provide a meeting agenda and a teleconference number.

5. **Pre-Construction Submittals.** At least fourteen (14) days prior to the date of the preconstruction conference (as required above), the Permittee shall submit the final plans and specifications for this project, which must be consistent with the activity description of this permit and the approved permit drawings. The

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Permittee shall point out any deviations from the activity description or the approved permit drawings, and any significant changes would require a permit modification. Submittal shall include one (1) hardcopy (sized 11 inches by 17 inches or greater, with all text legible) and one (1) electronic copy of the final plans and specifications. The plans and specifications shall be accompanied by a letter indicating the project name, the permit number, the type of construction activity, the specific type of equipment to be used, the anticipated volume of material to be moved (if applicable) and the anticipated schedule. Further, the Permittee shall specify any anticipated sites that will be used (such as a disposal or re-use location) and appropriate contact information for those facilities. The final plans and specifications submitted under this condition must comply with all conditions set forth in this permit.

Additionally, the names and qualifications of the individuals who will conduct the turbidity monitoring shall be submitted to the Department. These individuals must be independent of the dredging contractor and must have experience collecting and measuring turbidity for navigational dredging and beach placement projects.

The Permittee shall also submit documentation from the U.S. Fish and Wildlife Service (FWS) that addresses the recently listed Red Knot and indicates that this work will be covered either under a Statewide Programmatic Biological Opinion or the Biological Opinions (BO) issued for construction on this project site. If the BO contains conditions that are not already contained herein, the Notice to Proceed will not be issued until the permit has been modified to include those additional conditions.

22. In the event a hopper dredge is utilized, the following requirements shall be met in addition to the Terms and Conditions of the NMFS Regional Biological Opinion for Hopper Dredging in the Gulf of Mexico:
 - a. Handling of sea turtles captured during hopper dredging projects shall be conducted only by persons with prior experience and training in these activities and who is duly authorized to conduct such activities through a valid permit issued by the Florida Fish and Wildlife Conservation Commission (FWC), pursuant to Florida Administrative Code 68E-1.
 - b. *Dredging Pumps*: Standard operating procedure shall be that dredging pumps shall be disengaged by the operator when the dragheads are not firmly on the bottom, to prevent impingement or entrainment of sea turtles within the water column. This precaution is especially important during the cleanup phase of dredging operations.

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- c. *Sea Turtle Deflecting Draghead*: A state-of-the-art rigid deflector draghead must be used on all hopper dredges in all Gulf of Mexico channels at all times of the year.
 - d. The Sea Turtle Stranding and Salvage Network (STSSN) Coordinator, Dr. Allen Foley, shall be notified at (904) 573-3930 or via e-mail at Allen.Foley@myfwc.com of the start-up and completion of hopper dredging operations. In the event of capturing or recovering marine turtles or marine turtle parts, the Permittee shall contact STSSN at seaturtlestranding@myfwc.com.
 - e. Relocation trawling shall be undertaken at all projects where any of the following conditions are met; however, other ongoing projects not meeting these conditions are not required to conduct relocation trawling:
 - i. Two or more turtles are taken in a 24-hour period in the project.
 - ii. Four or more turtles are taken in the project.
 - f. The Permittee shall e-mail MTP@MyFWC.com ~~fax (850-921-6988) or (Meghan.koperski@MyFWC.com)~~ weekly reports to the Imperiled Species Management section on Friday each week that relocation trawling is conducted in Florida water. These weekly reports ~~faxes~~ shall include: the species and number of turtles captured in Florida waters, general health, and release information. A summary, (using FWC provided Excel spreadsheet) of all trawling activity (including non-capture trawling), of all turtles captured in Florida waters, including all measurements, the latitude and longitude (in decimal degrees) of captures and tow start-stop points, and times for the start-stop points of the tows, including those tows on which no turtles are captured shall be submitted to the MTP@myfwc.com ~~ISM~~ by January 15 of the following year.
25. Once breeding is confirmed by the presence of a scrape, eggs, or young, the Bird Monitor will notify the ~~FWC Regional Species Conservation Regional Nongame Biologist~~ FWC Regional Species Conservation Regional Nongame Biologist (contact information available at: <http://www.myfwc.com/shorebirds>) ~~of the FWC at (561) 648-3205~~ within 24 hours.
- a. All breeding activity will be reported to the Beach-Nesting Bird website within one week of data collection.
 - b. Observations of non-breeding shorebirds should be reported to the Shorebird-Seabird Occurrence Database, as described below.

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The set of approved permit drawings shall be revised as follows:

Sheets 1-10 (packaged and certified on August 25, 2015) shall replace sheets 1-7
(packaged and certified on October 19, 2010).

After thorough review of your application, staff finds that the proposed modification is not expected to adversely affect water quality or change the determination that the project is clearly in the public interest. Staff has also determined that the proposed alteration does not increase the potential for adverse impact on the coastal system, public beach access seaward of the mean high water line or nesting sea turtles and hatchlings and their habitat, and that the proposed alteration does not reduce the design adequacy of the project. Since the proposed modification is not expected to result in any adverse environmental impact or water quality degradation, the permit is hereby modified as stated above. By copy of this letter and the attached drawing(s), we are notifying all necessary parties of the modification.

This letter of approval does not alter the **December 9, 2020** expiration date. The only Specific Conditions of the permit that are altered by this modification are those stated above. This letter and the attached drawings must be attached to the original permit.

This permit is hereby modified unless a sufficient petition for an administrative hearing is timely filed under Sections 120.569 and 120.57, Florida Statutes (F.S.), as provided below. The procedures for petitioning for a hearing are set forth below. Mediation under Section 120.573, F.S., is not available for this proceeding.

NOTICE OF RIGHTS

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received by the clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000.

Because the administrative hearing process is designed to redetermine final agency action on the application, the filing of a petition for an administrative hearing may result in further modification of the permit or even a denial of the application. If a sufficient petition for an administrative hearing or request for an extension of time to file a petition is timely filed, this permit modification automatically becomes only proposed agency action on the application subject to the result of the administrative review process. Accordingly, the applicant is advised not to commence construction or other activities under this permit modification until the deadlines noted below for filing a petition for an administrative hearing or request for an extension of time has expired.

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Under Rule 62-110.106(4), Florida Administrative Code (F.A.C.), a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, before the applicable deadline. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon. If a request is filed late, the Department may still grant it upon a motion by the requesting party showing that the failure to file a request for an extension of time before the deadline was the result of excusable neglect.

In the event that a timely and sufficient petition for an administrative hearing is filed, other persons whose substantial interests will be affected by the outcome of the administrative process have the right to petition to intervene in the proceeding. Any intervention will be only at the discretion of the presiding judge upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the applicant must be filed within 14 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the notice or within 14 days of receipt of the written notice, whichever occurs first.

Under Section 120.60(3), F.S., however, any person who has asked the Department for notice of agency action may file a petition within 14 days of receipt of such notice, regardless of the date of publication.

The petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition for an administrative hearing within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S.

In accordance with Rule 28-106.201, F.A.C., a petition that disputes the material facts on which the Department's action is based must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests are or will be affected by the agency determination;

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- (c) A statement of when and how the petitioner received notice of the agency decision;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;
- (f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts on which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C. Under Sections 120.569(2)(c) and (d), F.S., a petition for administrative hearing must be dismissed by the agency if the petition does not substantially comply with the above requirements or is untimely filed.

This action is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with the above. Upon the timely filing of a petition this order will not be effective until further order of the Department.

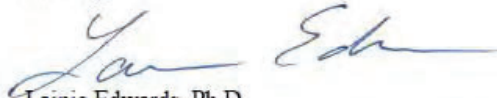
This permit modification constitutes an order of the Department. The applicant has the right to seek judicial review of the order under Section 120.68, F.S., by the filing of a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000; and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate district court of appeal. The notice of appeal must be filed within 30 days from the date when the final order is filed with the Clerk of the Department.

When there has been no publication of notice of agency action or notice of proposed agency action as prescribed in Rule 62-110.106, F.A.C., a person may request a copy of the agency action. The Department shall upon receipt of such a request, if agency action has occurred, promptly provide the person with notice. The Department does not require notice of this agency action to be published. However, the applicant may elect to publish notice as prescribed in Rule 62-110.106, F.A.C., which constitutes notice to the public and establishes a time period for submittal of any petition.

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If you have any questions regarding this matter, please contact Ivana Kenny by email at Ivana.Kenny@dep.state.fl.us or by telephone at (850) 245-7618.

Sincerely,



Lainie Edwards, Ph.D.
Program Administrator
Beaches, Inlets & Ports Program


LE/ik

Attachments: Permit drawings

Cc	Lainie Edwards, DWRM	Ralph Clark, DWRM
	Martin Seeling, DWRM	Jennifer Coor, DWRM
	Kristina May, DWRM	Elizabeth Orr, NW District
	JCP Compliance Officer, DWRM	Marineturtle@myFWC.com
	BIPP Permit File	Kristen Sella, FWC
	Roxane Dow, DWRM	Ann Lazar, NPS
	Tom Edwards, DWRM	Beth Fugate, DEP

FILING AND ACKNOWLEDGMENT

FILED, on this date, pursuant to Section 120.52, Florida Statutes, with the designated
Department Clerk, receipt of which is hereby acknowledged.

	08/26/15
Deputy Clerk	Date

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Letter from U.S. Fish and Wildlife Service



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Field Office
1601 Balboa Avenue
Panama City, FL 32405-3721
Tel: (850) 769-0552
Fax: (850) 763-2177

August 25, 2015

Ms. Jennifer Jacobson
Chief, Coastal Environmental Team
Mobile District, Corps of Engineers
109 St. Joseph Street
Mobile, Alabama 36628-0001

Re: FWS NO. 2015-F-0173 Pensacola
Navigation Channel Project
FWS No. Programmatic 41910-2011-F-0170
FWS No. Pensacola Navigation Channel
Project 2009-F-0205
Project Title: Pensacola Navigation Channel
Project
County: Escambia County, Florida

Dear Ms. Jacobson:

This letter acknowledges the U. S. Fish & Wildlife Service's (Service) receipt of your email dated July 15, 2015, relating to the 2010 consultation for the routine Operational and Maintenance Dredging of the Pensacola Navigation Channel. The proposed project is located at these approximate central coordinates 30.335606° N and -87.304745° W. This response is provided in accordance with provisions of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and Section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

The following changes have occurred since the 2010 formal consultation and are analyzed in this informal consultation;

1. Increase of in-water maintenance area by the Corps,
2. The Federal listing of the Red knot (*Calidris canutus rufa*) as threatened, and the
3. Update to the 2011 Statewide Programmatic Biological Opinion (SPBO) for the U.S. Army Corps of Engineers (Corps) Civil Works and Regulatory sand placement activities in Florida to include terrestrial critical habitat for the loggerhead (*Caretta caretta*) sea turtle.

Proposed Action: The Pensacola Navigation Channel Project will place the dredged material from the channel on the west side of the channel within the Perdido Key portion of Gulf Islands National Seashore (GUIS). The material will be placed within the swash zone/nearshore environment between +3 and -12 foot contours at approximately 50 cubic feet per linear foot.

Proposed In-Water Changes: Three segments of the Lower Pensacola Harbor entrance channel are proposed for advanced maintenance dredging and placement activities (Figure 1). Advanced

Ms Jacobson

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maintenance widening is proposed for 100 feet to the east of the channel through Pensacola Pass for approximately one mile with approximately 100,000 cubic yards (cys) removed; 100 feet to the west of the upper entrance channel for approximately one-half mile with approximately 80,000 cys removed; and 50 feet on both sides of the lower section of the entrance channel for approximately one mile with approximately 40,000 cys removed for a total of approximately 220,000 cys removed.

The Army Corps of Engineers (Corps) has made the following determinations regarding threatened and or endangered species known to occur within the vicinity of the proposed project and their designated critical habitat: West Indian manatee (*Trichechus manatus*) – “may affect, not likely to adversely affect”, Red knot (*Calidris canutus rufa*) – “may affect, not likely to adversely affect”, Perdido Key beach mouse (*Peromyscus polionotus trissyllepsis*) and designated critical habitat – “may affect, not likely to adversely affect”, nesting sea turtles – “may affect, but not likely to adversely affect”: threatened Loggerhead (*Caretta caretta*) and designated terrestrial critical habitat, endangered Green (*Chelonia mydas*), endangered leatherback (*Dermochelys coriacea*), and the endangered Kemp’s Ridley (*Lepidochelys kempii*) sea turtles. Sea turtle consultations for proposed actions occurring in water are managed by NOAA’s National Marine Fisheries Service.

The red knot, known to occur only in smaller, intermittent numbers within the Gulf Islands National Seashore, is not likely to be adversely affected by this project because: 1) swash zone placement of the materials is expected to cause minimal, if any, smothering of their food source; and 2) this area is irregularly used by red knots and only in small numbers (1-5 birds during migration). Piping plover largely use bayside habitats for foraging within GUIS and roosting habitat does not appear to be limited. No consistent occurrences of piping plover within the project area are reported. We would again concur with a “not likely to adversely affect” should the Corps continue to hold that determination.

Based on the information provided, we concur with your determination that the project “may affect, but would not likely adversely affect” the West Indian manatee, Red knot, Perdido Key beach mouse and it’s designated critical habitat, threatened Loggerhead sea turtle and it’s designated terrestrial critical habitat, endangered Green sea turtle, endangered leatherback sea turtle, the endangered Kemp’s Ridley sea turtle.

Conservation Measures

West Indian manatee – All in water work

The permittee shall comply with the standard manatee conditions for in-water work (enclosed).

Perdido Key beach mouse – All placement of sand

Additional conservation measures (FWS Log NO. 2009-F-0205) to be included in the project plans to minimize impacts to the Perdido Key Beach mouse on GUIS.

1. The Corps will work with GUIS and the Service to finalize plans for transporting people, equipment, fuel, etc. along the Gulf of Mexico beachfront between the GUIS-Perdido

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- Key paved roads and parking areas and the work site. The goal will be to use UTVs as much as possible to minimize the need for standard 4-wheel drive vehicles use.
2. Dredging operations are 24/7 operations because of operational costs. In addition, if work is restricted to only daylight hours the work could not be completed within the required environmental timeframes. However, the lighting requirements in the SPBO will be followed.
 3. The Corps will coordinate and work with GUIs to identify and post/mark habitat or other areas that should be protected or avoided during construction. Existing beach access point on GUIs will be used and marked appropriately including the beachfront travel corridor to the work site for transport of equipment and personnel along the beachfront.
 4. No dredged material will be deposited on vegetation as it will be placed in the swash zone. However, as appropriate the Corps will coordinate with GUIs to ensure vegetated areas are marked or delineated for avoidance as needed.
 5. Trash related to the project work will be removed daily and disposed offsite of GUIs or as approved by GUIs.
 6. A pre-construction meeting will be held with the Corps, GUIs, and the Service to review the requirements of the biological opinion and GUIs management.

Sea turtles – Sand placement within the swash zone

Terms and Conditions from the current 2015 SPBO

B. Projects that are navigation maintenance dredging with beach placement, swash zone placement, and submerged littoral zone placement of Corps civil works project shall include the following measures:

Historically, these sand placement events as a result of a navigation maintenance dredging project with no local sponsor are smaller scaled, conducted at closer time intervals, and the sand often does not remain on the beach for an extended period of time.

Post construction requirements B10 and B11 may be subject to congressional authorization and the allocation of funds. If the Corps or Applicant cannot fulfill these Terms and Conditions, the Corps must reinstate consultation.

All beaches

- B1. Conservation Measures included in the Corps' PBA that address protection of nesting sea turtles and beach mice listed on pages 18 and 19 of the SPBO shall be implemented in the Corps federally authorized project or regulated activity.
- B2. Beach compatible fill shall be placed on the beach or in any associated dune system. Beach compatible fill must be sand that is similar to a native beach in the vicinity of the site that has not been affected by prior sand placement activity. The fill material must be similar in both coloration and grain size distribution to that native beach. Beach compatible fill is material that maintains the general character and functionality of the material occurring on the beach and in the adjacent dune and coastal system. Fill material shall comply with

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FDEP requirements pursuant to the Florida Administrative Code (FAC) subsection 62B-41.005(15). A Quality Control Plan shall be implemented pursuant to FAC Rule 62B-41.008(1) (k) 4.b.

- B3. Dredged material placement shall not occur during the period of peak sea turtle egg laying and egg hatching to reduce the possibility of sea turtle nest burial, crushing of eggs, or nest excavation.
- a. Dredged material placement in Brevard, Indian River, St. Lucie, Martin, Palm Beach, and Broward Counties shall occur only during the beach placement window indicated in Table 16. Construction equipment or pipes may be placed and/or stored on the beach only during the beach placement window indicated in Table 16.
 - b. Dredged material placement projects in Nassau, Duval, St. Johns, Flagler, Volusia, Miami-Dade, Monroe, Collier, Lee, Charlotte, Sarasota, Manatee, Hillsborough, Pinellas, Franklin, Gulf, Bay, Walton, Okaloosa, Santa Rosa and Escambia Counties may occur during the sea turtle nesting season except on publicly owned conservation lands such as state parks and areas where such work is prohibited by the managing agency or under applicable local land use codes (see exceptions in B3.c. below).
 - c. For higher density nesting beaches in Gulf and Franklin counties dredged material placement shall not occur during the main part of the nesting season June 1 through September 31. On Manasota Key in Sarasota and Charlotte Counties, dredged material placement shall not occur during the main part of the nesting season (May 1 through October 31). This timeframe does not include Venice Beach due to the low density nesting. These beaches include St. Joseph Peninsula State Park, St. Joseph peninsula, and Cape San Blas in Gulf County, St. George Island in Franklin County, and Manasota Key in Sarasota and Charlotte Counties. See Table 17 for the Beach Placement Windows.
 - d. For dredged material placement in the swash zone (at or below the MHWL) or submerged littoral zone during the sea turtle nesting season (Tables 16 and 17), the Corps shall contact the Service for coordination. The Service shall be contacted for coordination, on a project-by-project basis, if sand placement is needed on publicly owned conservation lands and in these higher density nesting beaches in Gulf and Franklin Counties and on Manasota Key in Sarasota and Charlotte Counties during the above exclusionary period. The Service will determine whether work (1) may proceed in accordance with the Terms and Conditions; (2) proceed in accordance with the Terms and Conditions and other requirements as developed by the Service; or (3) would require that an individual emergency consultation be conducted.
- B4. For dredged material placement in the swash zone or submerged littoral zone during the nesting and hatching season, sand placement will be conducted at or below the MLLW line. The swash zone is that region between the upper limit of wave run-up (approximately one-foot above MHW) and the lower limit of wave run-out (approximately one-foot below MLW). Material will not be placed so that it is exposed

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above the water during low tide during the nesting and hatching season. The Corps must consult with NMFS on impacts to hatchlings that emerge from those nests adjacent to the inwater construction area. The Service will discuss with the Corps and NMFS additional measures that could include caging nests close to the emergence date.

- B5. All derelict concrete, metal, and coastal armoring geotextile material and other debris shall be removed from the beach prior to any dredged material placement to the maximum extent possible. If debris removal activities take place during the peak sea turtle nesting season (Tables 16 and 17), the work shall be conducted during daylight hours only and shall not commence until completion of the sea turtle nesting survey each day.
- B6. The Corps shall continue to work with FDEP, FWC and the Service in conducting the second phase of testing on the sea turtle friendly profile during project construction. This includes exploring options to include a dune system in the project design for existing authorized projects and new non-federal projects and how the existing sand placement template may be modified.
- B7. Predator-proof trash receptacles shall be installed and maintained during construction at all beach access points used for the project construction to minimize the potential for attracting predators of sea turtles and beach mice (Appendix F). The Corps shall provide predator-proof trash receptacles for the construction workers. All workers shall be briefed on the importance of not littering and keeping the project area trash and debris free.
- B8. A meeting between representatives of the Corps, the Service (Panama City Field Office), the FWC, the permitted sea turtle surveyor, and other species surveyors, as appropriate, shall be held prior to the commencement of work on projects. At least 10 business days advance notice shall be provided prior to conducting this meeting. The meeting will provide an opportunity for explanation and/or clarification of the sea turtle and beach mouse protection measures as well as additional guidelines when construction occurs during the sea turtle nesting season, such as storing equipment, minimizing driving, free-roaming cat observation, and reporting within the work area, as well as follow up meetings during construction.

Sea Turtle Protection

- B9. Daily early morning surveys for sea turtle nests shall be required as outlined in a through f. If nests are constructed in the area of sand proposed placement, the eggs shall be relocated to minimize sea turtle nest burial, crushing of eggs, or nest excavation.
 - a. For sand placement projects in Brevard, Indian River, St. Lucie, Martin, Palm Beach, and Broward Counties that occur during earlier part of the nest laying season through April 30, daily early morning surveys shall be conducted for sea turtle nests shall begin with the start of the nesting season monitoring (see Table 16) and continue through the end of the beach placement window, with egg relocation continuing only until completion of fill placement. Eggs shall be relocated per the following requirements. For sand placement

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projects that occur during the period from November 1 through the end of hatching season (see Table 16), daily early morning sea turtle nesting surveys shall be conducted 65 days prior to project initiation and continue through the end of the nest laying season indicated in Table 16, and eggs shall be relocated per the requirements listed in (a) i through (a) iii.

- i. Nesting surveys and egg relocations will only be conducted by persons with prior experience and training in these activities and who are duly authorized to conduct such activities through a valid permit issued by FWC, pursuant to FAC 68E-1. Please contact FWC's Imperiled Species Management Section in Tequesta at (561) 575-5407 for information on the permit holder in the project area. Nesting surveys shall be conducted daily between sunrise and 9 a.m. (this is for all time zones).
- ii. Only those nests that may be affected by sand placement activities will be relocated. Nest relocation shall not occur upon completion of the project. Nests requiring relocation shall be moved no later than 9 a.m. the morning following deposition to a nearby self-release beach site in a secure setting where artificial lighting will not interfere with hatchling orientation. Relocated nests shall not be placed in organized groupings. Relocated nests shall be randomly staggered along the length and width of the beach in settings that are not expected to experience daily inundation by high tides or known to routinely experience severe erosion and egg loss, or subject to artificial lighting. Nest relocations in association with construction activities shall cease when construction activities no longer threaten nests.
- iii. Nests deposited within areas where construction activities have ceased or will not occur for 65 days or nests laid in the nourished area prior to tilling shall be marked and left in situ unless other factors threaten the success of the nest. The turtle permit holder shall install an on-beach marker at the nest site and a secondary marker at a point as far landward as possible to assure that future location of the nest will be possible should the on-beach marker be lost. No activity will occur within this area nor will any activities occur that could result in impacts to the nest. Nest sites shall be inspected daily to assure nest markers remain in place and the nest has not been disturbed by the project activity.

During the period from March 1 through April 30, daytime surveys shall be conducted for leatherback sea turtle nests beginning March 1. Nighttime surveys for leatherback sea turtles shall begin when the first leatherback crawl is recorded within the project or adjacent beach area through April 30 or until completion of the project (whichever is earliest). Nightly nesting surveys shall be conducted from 9 p.m. until 6 a.m. The project area shall be surveyed at 1-hour intervals (since leatherbacks require at least 1.5 hours to complete nesting, this will ensure all nesting leatherbacks are encountered) and eggs shall be relocated per the requirements listed in (a) i through (a) iii.

- b. b. For sand placement projects in Nassau, Duval, St. Johns, Flagler, Volusia, Miami-Dade, Monroe, Collier, Lee, Charlotte, Sarasota, Manatee, Hillsborough, Pinellas,

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Franklin, Gulf, Bay, Walton, Okaloosa, Santa Rosa and Escambia Counties that occur during the nest laying period (2 May – 16 September), daily early morning (before 9 a.m.) surveys shall be conducted. If nests are laid in areas where they may be affected by construction activities, eggs shall be relocated per the requirements listed in (a) i through (a) iii (see nest relocation exceptions for Franklin, Gulf, Sarasota, and Charlotte Counties in B9.d. below).

- c. For Franklin, Gulf, Bay, Walton, Okaloosa, Santa Rosa, and Escambia Counties, nesting surveys shall be initiated 70 days prior to sand placement activities (incubation periods are longer in these counties) or at the beginning of nesting season monitoring (2 May – 16 September) whichever is later. Nesting surveys shall continue through the end of the nest laying season (2 May – 16 September). Hatching and emerging success monitoring will involve checking nests beyond the completion date of the daily early morning nesting surveys. If nests are laid in areas where they may be affected by construction activities, eggs shall be relocated per the requirements listed in (a) i through (a) iii (see nest relocation exceptions for Franklin and Gulf Counties in B9.d. below).
- d. For St. Joseph Peninsula State Park, St. Joseph peninsula, and Cape San Blas in Gulf County, St. George Island in Franklin County sand placement activities shall occur only during the Beach Placement Window indicated in Table 17. For Manasota Key in Sarasota and Charlotte Counties (except Venice Beach), sand placement activities shall during the Beach Placement Window indicted in Table 15, the period of peak sea turtle egg laying and egg hatching for this area. If nests laid in the early part of the nest laying season during the beach placement window in areas where they may be affected by construction activities, eggs shall be relocated per the requirements listed in (a) i through (a) iii below.
- e. For Pinellas, Hillsborough, Manatee, Sarasota, Charlotte, Lee, Collier, and Monroe Counties, nesting surveys shall be initiated 65 days prior to nourishment or dredged channel material placement activities or by April 15, whichever is later. Nesting surveys shall continue through September 15. If nests are laid in areas where they may be affected by construction activities, eggs shall be relocated per the requirements listed in (a) i through (a) iii (see nest relocation exceptions for Sarasota and Charlotte Counties in B9.d. above).
- f. For Miami-Dade County, nesting surveys shall be initiated 65 days prior to dredged material placement activities or by the beginning of the nesting season monitoring indicated in Table 17, whichever is later. Nesting surveys shall continue through the end of the nest laying season or the end of sand placement whichever comes first. If nests are laid in areas where they may be affected by construction activities, eggs shall be relocated per the requirements listed in (a) i through (a) iii.
- g. For Volusia, Flagler, St. Johns, Duval, and Nassau Counties, nesting surveys shall be initiated 65 days prior to dredged material placement activities or by the beginning of nest laying season whichever is later. Nesting surveys shall continue through the nesting

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season monitoring period. If nests are laid in areas where they may be affected by construction activities, eggs shall be relocated per the requirements listed in (a) i through (a) iii.

B10. Sand compaction shall be monitored in the area of dredged material placement immediately after completion of the project and prior to April 15 for 3 subsequent years. Not required for dredged material placement in the swash and littoral zone.

If tilling is needed, the area shall be tilled to a depth of 36 inches. Each pass of the tilling equipment shall be overlapped to allow more thorough and even tilling. All tilling activity shall be completed at least once prior to the nesting season. An electronic copy of the results of the compaction monitoring shall be submitted seaturtle@fws.gov prior to any tilling actions being taken. The requirement for compaction monitoring can be eliminated if the decision is made to till regardless of post construction compaction levels. Additionally, out-year compaction monitoring and remediation are not required if placed material no longer remains on the dry beach. (NOTE: If tilling occurs during shorebird nesting season (February 15-August 31), shorebirds surveys prior to tilling are required per the Migratory Bird Treaty Act (http://myfwc.com/docs/Conservation/FBCI_BNB_SeaTurtleMonitors.pdf))

- a. Compaction sampling stations shall be located at 500-foot intervals along the sand placement template. One station shall be at the seaward edge of the dune/bulkhead line (when material is placed in this area), and one station shall be midway between the dune line and the high water line (normal wrack line).
- b. At each station, the cone penetrometer shall be pushed to a depth of 6, 12, and 18 inches three times (three replicates). Material may be removed from the hole if necessary to ensure accurate readings of successive levels of sediment. The penetrometer may need to be reset between pushes, especially if sediment layering exists. Layers of highly compact material may lie over less compact layers. Replicates shall be located as close to each other as possible, without interacting with the previous hole or disturbed sediments. The three replicate compaction values for each depth shall be averaged to produce final values for each depth at each station. Reports will include all 18 values for each transects line, and the final six averaged compaction values.
- c. If the average value for any depth exceeds 500 pounds per square inch (psi) for any two or more adjacent stations, then that area shall be tilled immediately prior to April 15.
- d. If values exceeding 500 psi are distributed throughout the project area but in no case do those values exist at two adjacent stations at the same depth, then consultation with the Service will be required to determine if tilling is required. If a few values exceeding 500 psi are present randomly within the project area, tilling will not be required.
- e. Tilling shall occur landward of the wrack line and avoid all vegetated areas 3 square feet or greater with a 3 square foot buffer around the vegetated areas.

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- B11. Visual weekly surveys for escarpments along the project area shall be made immediately after completion of the dredged material placement and within 30 days prior to the start dates for Nesting Season Monitoring, April 15, for 3 subsequent years if sand in the project area still remains on the dry beach. Not required for dredged material placement in the swash and littoral zone.

Escarpments that interfere with sea turtle nesting or that exceed 18 inches in height for a distance of 100 feet shall be leveled and the beach profile shall be reconfigured to minimize scarp formation by the dates listed above. Any escarpment removal shall be reported by location. If the project is completed during the early part of the sea turtle nesting and hatching season (March 1 through April 30), escarpments may be required to be leveled immediately, while protecting nests that have been relocated or left in place. The Service shall be contacted immediately if subsequent reformation of escarpments that interfere with sea turtle nesting or that exceed 18 inches in height for a distance of 100 feet occurs during the nesting and hatching season to determine the appropriate action to be taken. If it is determined by the Service, in coordination with the FWC, that escarpment leveling is required during the nesting or hatching season, the Service will provide a brief written authorization within 30 days that describes methods to be used to reduce the likelihood of impacting existing nests. An annual summary of escarpment surveys and actions taken shall be submitted electronic to seaturtle@fws.gov.

- B12. If available, staging areas for construction equipment shall be located off the beach during early (before April 30) and late (after November 1) nesting season for Brevard through Broward counties (see Table 16) and peak nesting season (May 1 through October 31) for the remaining counties. Nighttime storage of construction equipment not in use shall be off the beach to minimize disturbance to sea turtle nesting and hatching activities. In addition, all construction pipes placed on the beach shall be located as far landward as possible without compromising the integrity of the dune system. Pipes placed parallel to the dune shall be 5 to 10 feet away from the toe of the dune if the width of the beach allows. Temporary storage of pipes shall be off the beach to the maximum extent possible. If the pipes are stored on the beach, they shall be placed in a manner that will minimize the impact to nesting habitat and shall not compromise the integrity of the dune systems. If the pipes that are placed parallel to the dune cannot be placed between 5 to 10 feet away from the toe of the dune during nesting and hatching season, the Corps must reinitiate consultation with the Service as this represents take that was not considered in the SPBO. If it will be necessary to extend construction pipes past a known shorebird nesting site or over-wintering area for piping plovers, then whenever possible those pipes shall be placed landward of the site before birds are active in that area. No pipe or sand shall be placed seaward of a shorebird nesting site during the shorebird nesting season.

- B13. Direct lighting of the beach and nearshore waters shall be limited to the immediate construction area during early (before April 30) and late (after November 1) nesting season for Brevard through Broward counties (see Table 14) and peak nesting season (May 1 through October 31) for the remaining counties, and shall comply with safety requirements. Lighting on all equipment shall be minimized through reduction, shielding, lowering, and appropriate placement to avoid excessive illumination of the water's

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surface and nesting beach while meeting all Coast Guard, Corps EM 385-1-1, and OSHA requirements. Light intensity of lighting equipment shall be reduced to the minimum standard required by OSHA for General Construction areas, in order not to misdirect sea turtles. Shields shall be affixed to the light housing and be large enough to block light from all lamps from being transmitted outside the construction area and to the adjacent sea turtle nesting beach in line-of-sight of the dredge (Figure 15).

- B14. During the period during early (before April 30) and late (after November 1) nesting season for Brevard through Broward counties (see Table 16) and peak nesting season (May 1 through October 31) for the remaining counties, the Corps shall not extend the beach fill more than 500 feet (or other agreed upon length if FWC sea turtle permit holder is present) along the shoreline between dusk and dawn of the following day until the daily nesting survey has been completed and the beach cleared for fill advancement. An exception to this may occur if there is a permitted sea turtle surveyor present on-site to ensure no nesting and hatching sea turtles are present within the extended work area. If the 500 feet is not feasible for the project, an agreed upon distance will be decided on during the preconstruction meeting. Once the beach has been cleared and the necessary nest relocations have been completed, the Corps will be allowed to proceed with the placement of fill during daylight hours until dusk at which time the 500-foot length (or other agreed upon length) limitation shall apply. If any nesting turtles are sighted on the beach within the immediate construction area, activities shall cease immediately until the turtle has returned to the water and the sea turtle permit holder responsible for nest monitoring has relocated the nest.

Beach Mouse Protection

- B15. Beach mouse habitat shall be avoided when selecting sites for equipment, pipes, vehicle storage and staging, and beach travel corridors to the maximum extent possible. Suitable beach mouse habitat constitutes the primary dunes (characterized by sea oats and other grasses), secondary dunes (similar to primary dunes, but also frequently includes such plants as woody goldenrod, false rosemary), and interior or scrub dunes.
- B16. Equipment placement or storage shall be excluded in the area between 5 to 10 feet seaward of the existing dune toe or 10 percent of the beach width (for projects occurring on narrow eroded beach segments) seaward of the dune toe in areas of occupied beach mouse habitat (Figure 16). The toe of the dune is where the slope breaks at the seaward foot of the dune.
- B17. Existing beach access points shall be used for vehicle and equipment beach access to the maximum extent possible. These access points shall be delineated by post and rope or other suitable material to ensure vehicles and equipment transport stay within the access corridor. The topography at the access points shall be fully restored to preconstruction conditions following project completion. Parking areas for construction crews shall be located as close as possible to the work sites, but outside of vegetated dune areas to minimize impacts to existing habitat and transporting workers along the beachfront.

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B18. The location of new or expanded existing beach access corridors for vehicles and equipment within beach mouse habitat consisting of vegetated dunes shall be no closer than every four miles. The distribution of access areas will result in the least number of access areas within beach mouse habitat as possible and delineated by post and rope or other suitable material to ensure vehicles and equipment transport stay within the access corridor. The access corridors shall be (1) no more than 25 feet wide for vehicles and (2) no more than 50 feet wide for equipment. Expanded or new beach access points that impact vegetated dunes shall be restored within 3 months following project completion. Habitat restoration shall consist of restoring the dune to preconstruction conditions with planting of at least three species of appropriate native dune vegetation (*i.e.*, native to coastal dunes in the respective county and grown from plant stock from that region of Florida). Seedlings shall be at least 1 inch square with a 2.5-inch pot. Planting shall be on 18-inch centers throughout the created dune; however, 24-inch centers may be acceptable depending on the area to be planted. Vegetation shall be planted with an appropriate amount of fertilizer and antidesiccant material, as appropriate, for the plant size. No sand stabilizer material (coconut matting or other material) shall be used in the dune restoration. The plants may be watered without installing an irrigation system. In order for the restoration to be considered successful, 80 percent of the total planted vegetation shall be documented to survive six months following planting of vegetation. If the habitat restoration is unsuccessful, the area shall be replanted following coordination with the Service.

Reporting

B19. An excel sheet with the information listed in Table 20 shall be submitted to the Service electronically seaturtle@fws.gov by December 31 of the year following construction. A report with the information from Terms and Conditions B10 and B11 shall be submitted to the Service by December 31 of the year for 3 years following construction.

Table 20. Information to include in the report following the project completion.

All projects	Project location (include Florida DEP R-monuments and latitude and longitude coordinates)
	Project description (include linear feet of beach, actual fill template, access points, and borrow areas)
	Dates of actual construction activities
	Names and qualifications of personnel involved in sea turtle nesting surveys and relocation activities (separate the nests surveys for nourished and non-nourished areas)
	Descriptions and locations of sites where nests were relocated
Beach mice	Acreage of new or widened access areas affected in beach mouse habitat
	Vegetation completed for new or widened access areas
	Success rate of vegetation of restoration

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B20. In the event a sea turtle nest is excavated during construction activities, the project turtle permit holder responsible for egg relocation for the project shall be notified immediately so the eggs can be moved to a suitable relocation site.

Upon locating a dead or injured sea turtle adult, hatchling, egg, or beach mouse that may have been harmed or destroyed as a direct or indirect result of the project, the Corps, Applicant shall be responsible for notifying FWC Wildlife Alert at 1-888-404-FWCC (3922), and the Service's Panama City Field Office immediately. Care shall be taken in handling injured sea turtles, eggs or beach mice to ensure effective treatment or disposition, and in handling dead specimens to preserve biological materials in the best possible state for later analysis.

In the event the terms and conditions are not met within the specified time by either the Corps or the Applicant, reinitiation of formal consultation will be required.

We appreciate the opportunity to provide comments and look forward to working with you during the construction process. Please contact Patty Kelly (850-769-0552 ext. 228) for any questions or comments on this consultation or shorebird issues or Lisa Lehnhoff (ext. 225) for sea turtle related questions.

Sincerely,



Dr. Catherine T. Phillips
Project Leader

Enclosure:

Standard Manatee Conditions for In-Water Work – get from manatee on share drive 2011

Cc via email:

Robbin Trindell, FWC, Tallahassee – electronic copy

Ann Marie Lauritsen, FWS, Jacksonville – electronic copy

STANDARD MANATEE CONDITIONS FOR IN-WATER WORK
2011

The permittee shall comply with the following conditions intended to protect manatees from direct project effects:

- a. All personnel associated with the project shall be instructed about the presence of manatees and manatee speed zones, and the need to avoid collisions with and injury to manatees. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act, the Endangered Species Act, and the Florida Manatee Sanctuary Act.
- b. All vessels associated with the construction project shall operate at "Idle Speed/No Wake" at all times while in the immediate area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- c. Siltation or turbidity barriers shall be made of material in which manatees cannot become entangled, shall be properly secured, and shall be regularly monitored to avoid manatee entanglement or entrapment. Barriers must not impede manatee movement.
- d. All on-site project personnel are responsible for observing water-related activities for the presence of manatee(s). All in-water operations, including vessels, must be shutdown if a manatee(s) comes within 50 feet of the operation. Activities will not resume until the manatee(s) has moved beyond the 50-foot radius of the project operation, or until 30 minutes elapses if the manatee(s) has not reappeared within 50 feet of the operation. Animals must not be herded away or harassed into leaving.
- e. Any collision with or injury to a manatee shall be reported immediately to the Florida Fish and Wildlife Conservation Commission (FWC) Hotline at 1-888-404-3922. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-731-3336) for north Florida or Vero Beach (1-772-562-3909) for south Florida, and to FWC at ImperiledSpecies@myFWC.com
- f. Temporary signs concerning manatees shall be posted prior to and during all in-water project activities. All signs are to be removed by the permittee upon completion of the project. Temporary signs that have already been approved for this use by the FWC must be used. One sign which reads *Caution: Boaters* must be posted. A second sign measuring at least 8 ½" by 11" explaining the requirements for "Idle Speed/No Wake" and the shut down of in-water operations must be posted in a location prominently visible to all personnel engaged in water-related activities. These signs can be viewed at MyFWC.com/manatee. Questions concerning these signs can be sent to the email address listed above.

Letter from Florida Division of Historical Resources



FLORIDA DEPARTMENT of STATE

RICK SCOTT
Governor

KEN DETZNER
Secretary of State

U.S. Department of the Army
Mobile District, Corps of Engineers
PO Box 2288
Mobile, AL 36628-0001

October 2, 2015

RE: DHR Project No.: 2015-04726, Received by DHR: September 30, 2015
Application for Routine O & M Dredging: FP09-PE12-10, and for
Advanced Maintenance Widening: FP15-PE01-14
Applicant: U.S. Army Corps of Engineers, Mobile District
Project: No Effect Determination for the Dredging, Pipeline Placement, and Placement Areas
Associated with Maintenance Dredging and Advanced Widening of the Federal Channel,
Pensacola Pass, Pensacola Naval Air Station, Lower Pensacola Harbor / County: Escambia

To Whom It May Concern:

Our office reviewed the referenced project for possible effects on historic properties listed, or eligible for listing, on the *National Register of Historic Places*. The review was conducted in accordance with Section 106 of the *National Historic Preservation Act of 1966*, as amended, and its implementing regulations in *36 CFR Part 800: Protection of Historic Properties*.

According to the application, the project area is located within or adjacent to four cultural sites: Concrete Ballast Wreck (8ES2995) (Latitude: 30°18.828N, Longitude: 87°19.711W); Unrecorded Historic Barge (Latitude: 30°18.850N, Longitude: 87°19.447W); Copper Spike Wreck (GUIS 113); and Shark Cove Wreck (GUIS 114). The application states that, the CORPs Mobile District has determined that the project activities will have no effect on these cultural resources provided that, all four of these sites are avoided by using at least a 1,000-foot radius buffer zone during all dredging and placement activities.

Provided these conditions are met, it is the opinion of our office that the proposed project is unlikely to affect historic properties. However, we recommend that the permit includes the following special condition regarding unexpected discoveries:

- If prehistoric or historic artifacts, such as pottery or ceramics, projectile points, dugout canoes, metal implements, historic building materials, or any other physical remains that could be associated with Native American, early European, or American settlement are encountered at any time within the project site area, the permitted project shall cease all activities involving subsurface disturbance in the vicinity of the discovery. The applicant shall contact the Florida Department of State, Division of Historical Resources, Compliance Review Section at (850)-245-6333. Project activities shall not resume without verbal and/or written authorization. In the event that unmarked human remains are encountered during permitted activities, all work shall stop immediately and the proper authorities notified in accordance with Section 872.05, *Florida Statutes*.



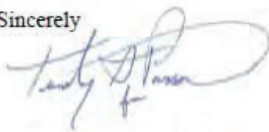
Division of Historical Resources
R.A. Gray Building • 500 South Bronough Street • Tallahassee, Florida 32399-0250
850.245.6300 • 850.245.6436 (Fax) dos.myflorida.com/historical
Promoting Florida's History and Culture VivaFlorida.org



U.S. Department of the Army
Mobile District, Corps of Engineers
October 2, 2015
Page 2

If you have any questions, please contact Florence McCullough, Historic Sites Specialist, by email at Florence.McCullough@dos.myflorida.com, or by telephone at 850.245.6333 or 800.847.7278.
We appreciate your continued interest in protecting Florida's historic properties.

Sincerely



Robert F. Bendus, Director
Division of Historical Resources and
State Historic Preservation Officer



Division of Historical Resources
R.A. Gray Building • 500 South Bronough Street • Tallahassee, Florida 32399-0250
850.245.6300 • 850.245.6436 (Fax) dos.myflorida.com/historical
Promoting Florida's History and Culture VivaFlorida.org



Section 103 Concurrence from EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

AUG 17 2016

Mr. Curtis M. Flakes
Chief
Planning and Environmental Division
U.S. Army Corps of Engineers
Mobile District
P.O. Box 2288
Mobile, Alabama 36628-0001

Dear Mr. Flakes:

This letter is in response to your request of July 21, 2016, for concurrence on the proposed disposal of maintenance dredged material from the Pensacola Harbor Federal Navigation Channel into the Pensacola Offshore Ocean Dredged Material Disposal Site (ODMDS).

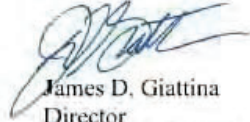
Pursuant to Section 103(c) of the Marine Protection, Research, and Sanctuaries Act, as amended, concurrence from the U.S. Environmental Protection Agency is based upon compliance with the criteria, conditions and restrictions established pursuant to Sections 102(a) [environmental criteria], and Section 102(c) [disposal site designation and management] of the Act. Based upon our review of the Section 103 Evaluation and testing report, we concur that the proposed dredged material meets the criteria for ocean disposal, as proposed.

This concurrence includes project segments as defined in the Section 103 Evaluation. The project is defined as maintenance areas in the Pensacola Inner Harbor, Pensacola East Channel, and Pensacola Bay Channel. Proposed dredged material from project segments, estimated to be approximately 700,000 cubic yards, include allowable over-depth and advanced maintenance. Project depth is -33 feet mean low water, with two feet of allowable over-depth and two feet of advanced maintenance for all areas. Dredging is anticipated to be conducted using a hydraulic cutter head with transportation and disposal by dump scows.

As with all concurrences provided by this office, our concurrence on the disposal of this material is contingent upon compliance with all specifications and conditions of the Pensacola Offshore ODMDS Site Management and Monitoring Plan (SMMP). Disposal of all material from the Pensacola Inner Harbor is restricted to a maximum of 10,000 cubic yards for any single dump. The District will also perform pre- and post-disposal bathymetric surveys and provide disposal summary reports to Region 4 in compliance with the requirements of the SMMP.

In addition, this concurrence is only valid for three years from the date of this letter. If you have any questions concerning this letter, please contact Mr. Gary Collins at 404/562-9395.

Sincerely,

A handwritten signature in blue ink, appearing to read "J. Giattina", is written over the printed name.

James D. Giattina
Director
Water Protection Division

Pensacola Harbor ODMDS Site Management and Monitoring Plan (SMMP)

December 2015

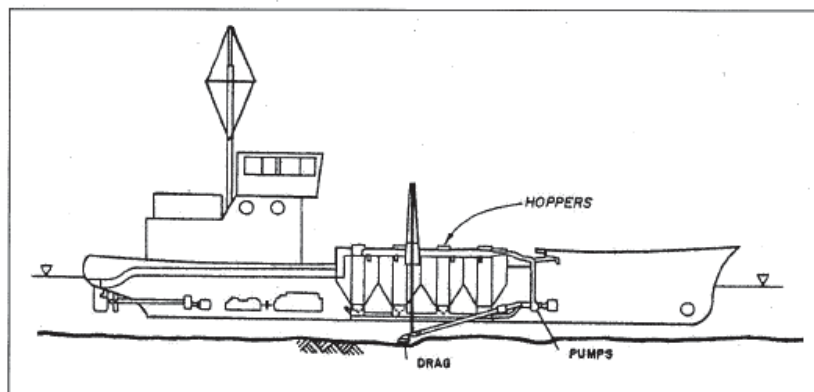
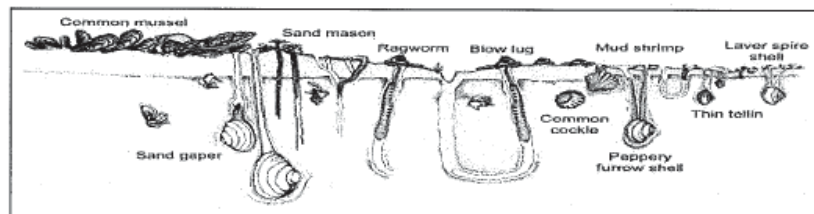
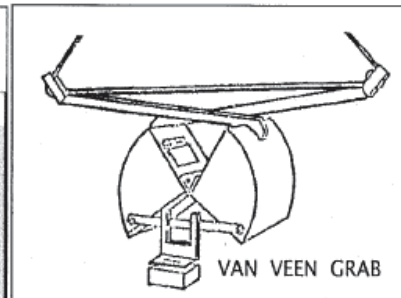
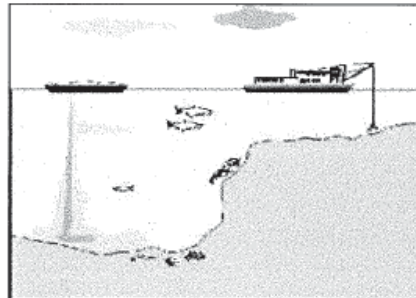


Pensacola
OCEAN DREDGED MATERIAL DISPOSAL SITE



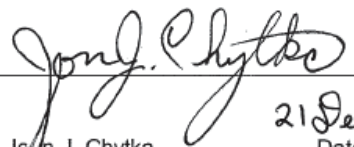
U.S. Army Corps
of Engineers

SITE MANAGEMENT AND MONITORING PLAN



Pensacola Offshore ODMDS SMMP

The following Site Management and Monitoring Plan (SMMP) for the Pensacola Offshore Ocean Dredged Material Disposal Site (ODMDS) has been developed and agreed to pursuant to the Water Resources Development Act (WRDA) Amendments of 1992 to the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for the management and monitoring of ocean disposal activities, as resources allow, by the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (USACE).



John J. Chytka
Colonel, Corps of Engineers,
District Commander
P.O. Box 2288
Mobile, Alabama

21 Dec 15
Date



Heather McTeer Toney
Regional Administrator
U.S. Environmental Protection Agency
Region 4
Atlanta, Georgia

DEC 08 2015
Date

This plan is effective from the date of signature for a period not to exceed 10 years. The plan shall be reviewed and revised more frequently if site use and conditions at the site indicate a need for revision.

Pensacola Offshore ODMDS SMMP

**PENSACOLA OFFSHORE ODMDS
SMMP**

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Pensacola ODMDS SMMP

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Pensacola ODMDS SMMP

**PENSACOLA OFFSHORE ODMDS
SMMP**

1.0 INTRODUCTION.

It is the responsibility of the EPA and USACE under the MPRSA of 1972 to manage and monitor ODMDSs designated by EPA pursuant to Section 102 of the MPRSA. The goal of this management is to ensure ocean dredged material disposal activities will not unreasonably degrade the marine environment or endanger human health or economic potential. As part of this responsibility, a SMMP was originally developed as part of the ODMDS designation process and was published in September 1988 as part of the *Final Environmental Impact Statement (FEIS) for Designation of a New Ocean Dredged Material Disposal Site, Pensacola, Florida* to specifically address disposal of dredged material into the Pensacola Offshore ODMDS. This plan will include past monitoring results and will comply with provisions in WRDA of 1992 and a 2007 Memorandum of Understanding (MOU) between EPA, Region 4 and USACE, South Atlantic Division (SAD). Upon finalization of this SMMP, these provisions shall be requirements for all dredged material disposal activities at the Pensacola Offshore ODMDS. **All Section 103 (MPRSA) ocean disposal permits and concurrences shall be conditioned as necessary to assure consistency with the SMMP.**

This SMMP has been prepared in accordance with the *Guidance Document for Development of Site Management Plans for Ocean Dredged Material Disposal Sites* (EPA & USACE, 1996). This document provides a framework for the development of SMMPs required by MPRSA and WRDA of 1992. The SMMP may be modified if it is determined that such changes are warranted as a result of information obtained during the monitoring process. The SMMP will be reviewed and revised as needed or every 10 years, whichever time period is shorter.

1.1 Site Management and Monitoring Plan Team. An interagency SMMP team has been established to assist EPA and the USACE in managing this SMMP. The team consists of the following agencies and their respective representatives:

USACE, Mobile District
Ms. Jennifer Jacobson
Mr. Matthew Lang
Mr. Larry Parson

Port of Pensacola
Ms. Amy Miller

USACE, Jacksonville District Regulatory
Mr. Clif Payne

EPA Region 4
Mr. Gary Collins

Florida Department of Environmental Protection
Ms. Elizabeth Orr

National Oceanic and Atmospheric Administration
Fisheries
Mr. Roy Crabtree
Mr. David Bernhart

U.S. Coast Guard
District Commander
Eighth District

Pensacola ODMDS SMMP

Other agencies, such as the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS), will be asked to participate where appropriate. The SMMP team will assist EPA and the USACE in evaluating existing monitoring data, type of disposal (i.e., operations and maintenance (O&M) vs. new work), quality of material (i.e., sand vs. mud vs. silt/clay), location of disposal within the Pensacola Offshore ODMDS, and quantity of material. The team will assist EPA and the USACE on deciding appropriate monitoring techniques, level of monitoring, significance of results, and potential management options.

Specific responsibilities of EPA and the USACE, Mobile District are:

EPA: EPA is responsible for designating and/or de-designating MPRSA Section 102 ODMDSs, for evaluating environmental effects from disposal of dredged material at these sites and for reviewing and concurring on dredged material suitability determinations.

USACE: The USACE is responsible for evaluating dredged material suitability, issuing MPRSA Section 103 permits, regulating site use, selecting MPRSA Section 103(b) ocean disposal sites if no suitable EPA designated site is available, and developing and implementing disposal monitoring programs. All of the above activities, with the exception of issuing MPRSA Section 103 permits, are handled by the Mobile District. Permitting activities for this part of Florida are handled by the Jacksonville District.

2.0 SITE MANAGEMENT

ODMDS management involves a broad range of activities including regulating schedule of use, quantity, and physical/chemical characteristics of dredged material placed at the site. It also involves establishing disposal controls, conditions and requirements to avoid and minimize potential impacts to the marine environment. Finally, ODMDS management involves monitoring site environs to verify unanticipated or significant adverse effects are not occurring from past or continued use of the site and that permit/concurrence conditions are met.

Section 228.3 of the Ocean Dumping Regulations (40 CFR §220 - 229) states "management of a site consists of regulating times, rates, and methods of disposal and quantities and types of materials disposed of; developing and maintaining effective ambient monitoring programs for the site; conducting disposal site evaluation studies; and recommending modifications in site use and/or designation". The plan may be modified if it is determined that such changes are warranted as a result of information obtained through the monitoring process. MPRSA, as amended by WRDA of 1992, provides SMMPs shall include but not be limited to:

- A baseline assessment of conditions at the site;
- A program for site monitoring;
- Special management conditions or practices to be implemented at each site necessary for the protection of the environment;
- Consideration of the quantity and physical/chemical characteristics of dredged materials placed at the site;
- Consideration of anticipated site use over the long-term; and

Pensacola ODMDS SMMP

- A schedule for review and revision of the plan.

2.1 Disposal Site Characteristics. The Pensacola Offshore ODMDS was designated by EPA, Region 4 in September 1988 for fine-grained material dredged from the Pensacola area (**Figure 1**) that meets Ocean Dumping Regulations (40 CFR §220-229), but is not suitable for beach nourishment. Boundary coordinates of the Pensacola Offshore ODMDS are shown in **Table 1**, North American Datum (NAD) 27:

Table 1: Pensacola Offshore ODMDS Corner Coordinates

Latitude 30°08'50" N	Longitude 87°19'30" W
Latitude 30°08'50" N	Longitude 87°16'30" W
Latitude 30°07'05" N	Longitude 87°16'30" W
Latitude 30°07'05" N	Longitude 87°19'30" W
State Plane 0903 (Florida North)	
Northing 428347.51	Easting 1075701.81
Northing 427959.37	Easting 1091501.16
Northing 417355.53	Easting 1091243.06
Northing 417743.77	Easting 1075439.07

The Pensacola Offshore ODMDS is located in the Gulf of Mexico approximately 11 miles south of Pensacola Pass (**Figure 2**). The site covers an approximately 6-square mile rectangular area, with a bottom surface that generally declines in an easterly/southeasterly direction at elevations ranging from -63 to -93 feet mean lower low water (MLLW).

Future disposal of sediments will be within a bermed area created during the site's initial use in 1988-89 as illustrated in **Figure 3**. This area is in the shape of a horseshoe, with berms on the south, east, and north sides of the disposal site. The bottom elevation within the bermed area varies from -68 to -83 feet MLLW. The distance between crests of the north and south berms is approximately 6,050 feet. The east-west extent of the area from the crest of the east berm to high ground varies from 6,000 to 11,000 feet. The following is the original design information for the bermed area:

- Crest elevation -70 feet MLLW;
- East berm alignment along longitude 87° 17' 00" W from latitude 30° 07' 28" N to 30° 08' 13" N; and
- South and North berm alignments 30° 07' 28" N to 30° 08' 13" N, respectively.

PENSACOLA HARBOR FLORIDA

REVISED TO 30 SEPTEMBER 1998

OFFICE OF THE DISTRICT ENGINEER
MOBILE, ALABAMA

4

PENSACOLA, FL

PAYOU CHICO

PENSACOLA HARBOR CHANNEL

PENSACOLA BAY CHANNEL

GULF BREEZE, FL

GULF ISLANDS NATIONAL SEASHORE

PENSACOLA ENTRANCE CHANNEL

GULF OF MEXICO

PENSACOLA
ODMDS

Source: U.S. Navy Hydrographic Survey, 1964, 1966, 1968, 1970, 1972, 1974, 1976, 1978, 1980, 1982, 1984, 1986, 1988, 1990, 1992, 1994, 1996, 1998, 2000, 2002, 2004, 2006, 2008, 2010, 2012, 2014, 2016, 2018, 2020, 2022, 2024, 2026, 2028, 2030, 2032, 2034, 2036, 2038, 2040, 2042, 2044, 2046, 2048, 2050, 2052, 2054, 2056, 2058, 2060, 2062, 2064, 2066, 2068, 2070, 2072, 2074, 2076, 2078, 2080, 2082, 2084, 2086, 2088, 2090, 2092, 2094, 2096, 2098, 2100, 2102, 2104, 2106, 2108, 2110, 2112, 2114, 2116, 2118, 2120, 2122, 2124, 2126, 2128, 2130, 2132, 2134, 2136, 2138, 2140, 2142, 2144, 2146, 2148, 2150, 2152, 2154, 2156, 2158, 2160, 2162, 2164, 2166, 2168, 2170, 2172, 2174, 2176, 2178, 2180, 2182, 2184, 2186, 2188, 2190, 2192, 2194, 2196, 2198, 2200, 2202, 2204, 2206, 2208, 2210, 2212, 2214, 2216, 2218, 2220, 2222, 2224, 2226, 2228, 2230, 2232, 2234, 2236, 2238, 2240, 2242, 2244, 2246, 2248, 2250, 2252, 2254, 2256, 2258, 2260, 2262, 2264, 2266, 2268, 2270, 2272, 2274, 2276, 2278, 2280, 2282, 2284, 2286, 2288, 2290, 2292, 2294, 2296, 2298, 2300, 2302, 2304, 2306, 2308, 2310, 2312, 2314, 2316, 2318, 2320, 2322, 2324, 2326, 2328, 2330, 2332, 2334, 2336, 2338, 2340, 2342, 2344, 2346, 2348, 2350, 2352, 2354, 2356, 2358, 2360, 2362, 2364, 2366, 2368, 2370, 2372, 2374, 2376, 2378, 2380, 2382, 2384, 2386, 2388, 2390, 2392, 2394, 2396, 2398, 2400, 2402, 2404, 2406, 2408, 2410, 2412, 2414, 2416, 2418, 2420, 2422, 2424, 2426, 2428, 2430, 2432, 2434, 2436, 2438, 2440, 2442, 2444, 2446, 2448, 2450, 2452, 2454, 2456, 2458, 2460, 2462, 2464, 2466, 2468, 2470, 2472, 2474, 2476, 2478, 2480, 2482, 2484, 2486, 2488, 2490, 2492, 2494, 2496, 2498, 2500, 2502, 2504, 2506, 2508, 2510, 2512, 2514, 2516, 2518, 2520, 2522, 2524, 2526, 2528, 2530, 2532, 2534, 2536, 2538, 2540, 2542, 2544, 2546, 2548, 2550, 2552, 2554, 2556, 2558, 2560, 2562, 2564, 2566, 2568, 2570, 2572, 2574, 2576, 2578, 2580, 2582, 2584, 2586, 2588, 2590, 2592, 2594, 2596, 2598, 2600, 2602, 2604, 2606, 2608, 2610, 2612, 2614, 2616, 2618, 2620, 2622, 2624, 2626, 2628, 2630, 2632, 2634, 2636, 2638, 2640, 2642, 2644, 2646, 2648, 2650, 2652, 2654, 2656, 2658, 2660, 2662, 2664, 2666, 2668, 2670, 2672, 2674, 2676, 2678, 2680, 2682, 2684, 2686, 2688, 2690, 2692, 2694, 2696, 2698, 2700, 2702, 2704, 2706, 2708, 2710, 2712, 2714, 2716, 2718, 2720, 2722, 2724, 2726, 2728, 2730, 2732, 2734, 2736, 2738, 2740, 2742, 2744, 2746, 2748, 2750, 2752, 2754, 2756, 2758, 2760, 2762, 2764, 2766, 2768, 2770, 2772, 2774, 2776, 2778, 2780, 2782, 2784, 2786, 2788, 2790, 2792, 2794, 2796, 2798, 2800, 2802, 2804, 2806, 2808, 2810, 2812, 2814, 2816, 2818, 2820, 2822, 2824, 2826, 2828, 2830, 2832, 2834, 2836, 2838, 2840, 2842, 2844, 2846, 2848, 2850, 2852, 2854, 2856, 2858, 2860, 2862, 2864, 2866, 2868, 2870, 2872, 2874, 2876, 2878, 2880, 2882, 2884, 2886, 2888, 2890, 2892, 2894, 2896, 2898, 2900, 2902, 2904, 2906, 2908, 2910, 2912, 2914, 2916, 2918, 2920, 2922, 2924, 2926, 2928, 2930, 2932, 2934, 2936, 2938, 2940, 2942, 2944, 2946, 2948, 2950, 2952, 2954, 2956, 2958, 2960, 2962, 2964, 2966, 2968, 2970, 2972, 2974, 2976, 2978, 2980, 2982, 2984, 2986, 2988, 2990, 2992, 2994, 2996, 2998, 3000, 3002, 3004, 3006, 3008, 3010, 3012, 3014, 3016, 3018, 3020, 3022, 3024, 3026, 3028, 3030, 3032, 3034, 3036, 3038, 3040, 3042, 3044, 3046, 3048, 3050, 3052, 3054, 3056, 3058, 3060, 3062, 3064, 3066, 3068, 3070, 3072, 3074, 3076, 3078, 3080, 3082, 3084, 3086, 3088, 3090, 3092, 3094, 3096, 3098, 3100, 3102, 3104, 3106, 3108, 3110, 3112, 3114, 3116, 3118, 3120, 3122, 3124, 3126, 3128, 3130, 3132, 3134, 3136, 3138, 3140, 3142, 3144, 3146, 3148, 3150, 3152, 3154, 3156, 3158, 3160, 3162, 3164, 3166, 3168, 3170, 3172, 3174, 3176, 3178, 3180, 3182, 3184, 3186, 3188, 3190, 3192, 3194, 3196, 3198, 3200, 3202, 3204, 3206, 3208, 3210, 3212, 3214, 3216, 3218, 3220, 3222, 3224, 3226, 3228, 3230, 3232, 3234, 3236, 3238, 3240, 3242, 3244, 3246, 3248, 3250, 3252, 3254, 3256, 3258, 3260, 3262, 3264, 3266, 3268, 3270, 3272, 3274, 3276, 32

Hydrographic surveys were conducted of the northern and southern berms in February 2001 and of the eastern berm in August 2003. The crest of the berms varied in elevation from -77 to -72 feet MLLW and deviated from the intended alignment by up to 200 feet. Likewise, the berm heights varied up to 8 feet and base widths varied up to 800 feet (**Figure 3**). Side slopes near the toes and crests were generally rounded, with side slopes at approximately 1-foot vertical to 40 feet horizontal or flatter. Surveys

Pensacola ODMDS SMMP

conducted in May 2014 (**Figures 4 & 5**) show the berm is distinguishable and intact. Although there is some variation from the original berm design, the existing configuration will continue to provide sufficient capacity over more than the 25-year project life.

Management goals expected to be gained with this plan were restriction of movement of fine-grained materials in the northerly or easterly direction. Subsequent surveys confirm sediments were confined, as expected, and did not show any evidence contrary to expected results. Additionally, the area has experienced numerous storm events over the past 30 years. Storm events occurring in the vicinity of the Pensacola Offshore ODMDS since 2004 are listed in **Table 2**.

Table 2: Storm Activity in the Vicinity of the Pensacola Offshore ODMDS

Storm	Year
Ivan ¹	2004
Arlene ²	2005
Cindy ²	2005
Dennis ¹	2005
Katrina ¹	2005
Tammy ²	2005
Alberto ²	2006
Fay ²	2008
Claudette ²	2009
Ida ¹	2009
Bonnie ²	2010
Isaac ¹	2012
Andrea ²	2013

¹Hurricane, ²Tropical Storm

Pensacola ODMDS SMMP

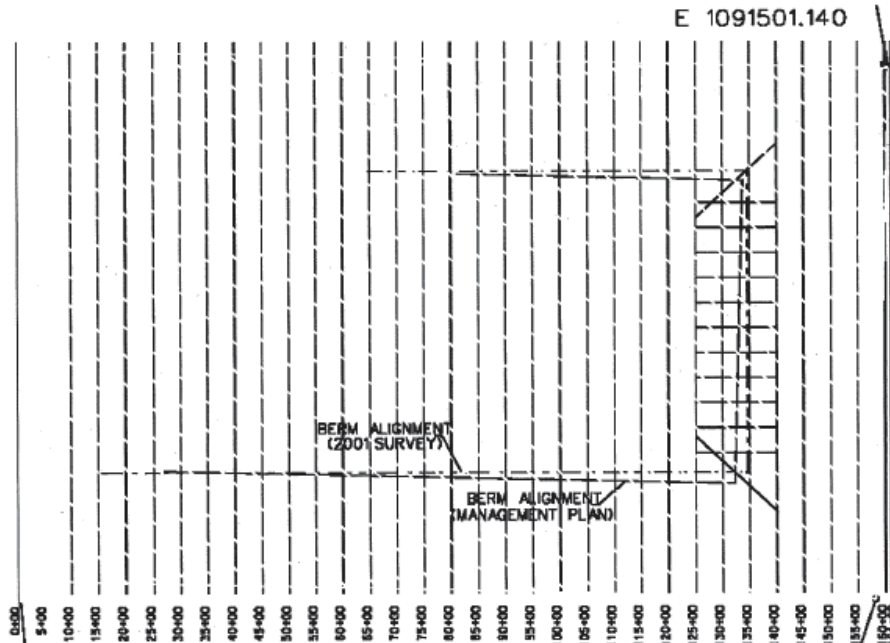


Figure 3: Berm alignment within the Pensacola Offshore ODMDS based on 2001 and 2003 surveys.

Upon completion of the berm construction, the Pensacola Offshore ODMDS was used for disposal of dredged material from the Navy Homeport of Pensacola between 1989 and 1990. The Pensacola Offshore ODMDS is also available for disposal from the Pensacola Harbor Federal navigation channel and private dredging activities (permitted regulatory actions). The USACE and the U.S. Navy were cooperating agencies of the September 1988 FEIS for site designation. Baseline physical and biological conditions at the Pensacola Offshore ODMDS were described in the 1988 FEIS. Physical, chemical, and biological conditions of dredged material to be placed at the Pensacola Offshore ODMDS are more recently described in the *Final Evaluation of Dredged Material-Pensacola Harbor Navigation Channel Project-Pensacola, Escambia County, Florida* (May 2013).

Future use of the Pensacola Offshore ODMDS is projected to occur from dredging the federally authorized Pensacola Harbor channels, and private users such as the Port of Pensacola or Pensacola Naval Air Station (NAS). Other than projected quantities in Section 2.3, additional uses may occur by private entities and therefore the exact nature and quantity of material, time of disposal, and type of equipment to be used are unknown for those permitted regulatory actions.

2.2 Management Objectives. Appropriate management of an ODMDS is aimed at assuring disposal activities will not unreasonably degrade or endanger human health, welfare, the marine environment or economic potentialities (MPRSA §103(a)). There are three primary objectives in managing the Pensacola Offshore ODMDS:

Pensacola ODMDS SMMP

- Protection of the marine environment, living resources, and human health and welfare;
- Documentation of disposal activities at the Pensacola Offshore ODMDS and provision of information which is useful in managing dredged material disposal activities; and
- Provide for beneficial use of dredged material whenever practical.

The objective of the SMMP is to provide guidelines in making management decisions necessary to fulfill mandated responsibilities to protect the marine environment as discussed previously. Risk-free decision-making is an impossible goal; however, an appropriate SMMP can narrow the uncertainty. The following sections provide the framework for meeting these objectives.

2.3 Disposal History and Dredged Material Volumes. It is intended that the Pensacola Offshore ODMDS will be used for dredged material (both maintenance and new work material) from the greater Pensacola Bay, Escambia County, Florida vicinity. The primary users of the Pensacola Offshore ODMDS are:

- USACE Mobile District
- Private Applicants (i.e. Regulatory Actions)

Disposal history can be found at the Ocean Disposal Database maintained by the Engineer Research and Development Center (ERDC) (<http://el.erd.c.usace.army.mil/odd/>). The Navy conducted dredging activities in 1989 through 1990 from the Gulf of Mexico thru Pensacola Pass to the turning basin located adjacent to Pensacola NAS. This dredging was conducted as part of the Navy Gulf Coast Strategic Homeporting. Four different disposal areas were used during this dredging including approximately 3.77 million cys (from the Navy turning basin) in the Pensacola Offshore ODMDS. In addition to the dredging conducted for the Navy, emergency dredging of the eastern leg of the Pensacola inner harbor channel was conducted in August 2004. Approximately 30,000 cys of material was dredged and placed in the Pensacola Offshore ODMDS. Prior to this dredging event, the inner harbor and bay portions of the Pensacola Harbor navigation channel had not been maintained since 1973. In 2005, another 337,328 cys of maintenance material from the rest of the Pensacola Harbor navigation channel was placed in the site. The most recent disposals of maintenance material from the navigation channel occurred in 2013 and 2014 (313,872 cys and 261,194 cys, respectively). Disposal events associated with the Pensacola Offshore ODMDS are summarized in **Table 3**. Future volumes and rates of disposal, from both Federal and private applicants, are expected to range on the order of approximately 350,000 cys per dredging and disposal event on a 2 to 3 year cycle.

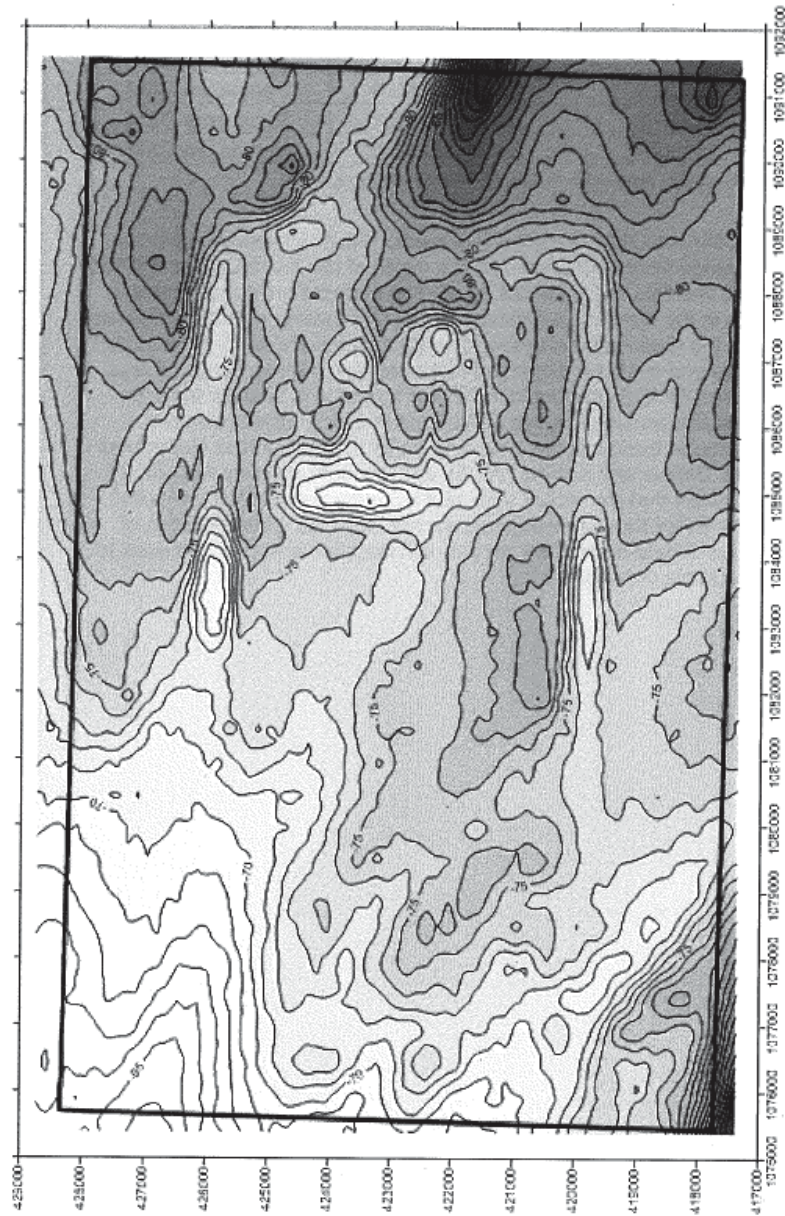
Pensacola ODMDS SMMP

Table 3: Dredged material disposal at the Pensacola Offshore ODMDS

Year	Volume (cys)	Material Type	Project
1989-90	3,778,300	NW: Sandy Mud/Silt	Navy Homeport
2004	30,000	Mud/Silt	Pensacola Harbor Emergency
2005	337,328	Sandy Mud/Silt	Pensacola O&M
2013	313,872	Sandy Mud/Silt	Pensacola O&M
2014	261,194	Sandy Mud/Silt	Pensacola O&M

Notes: cubic yards = CY; new work = NW, * Pre-site designation

The Pensacola Offshore ODMDS consists of medium to coarse sand substrate. Currents within the site range from 0.722 feet/sec at a depth of -30 feet MLLW and 0.525 feet/sec at a depth of -56 feet MLLW (Appendix A). These currents are not sufficient to move the medium sands in the Pensacola Offshore ODMDS, however during hurricanes or extreme storm events the likelihood increases. Dredged material placed, or projected for disposal, is less dense and could be dispersed more readily. Hydrographic surveys of the Pensacola Offshore ODMDS conducted in 2014 (**Figures 4 & 5**) show the area has remained relatively stable and intact since its last use in 2013. Given the site's demonstrated stability through these events, including major storms such as Hurricanes Opal (1995), Ivan (2004), Dennis and Katrina (2005), and lesser hurricanes Ida (2009) and Isaac (2012), it is unlikely that significant sediment movement would have resulted from these events. In the event that a pre-disposal survey indicates a deterioration of the submerged berm, appropriate materials from the next disposal action will be used to restore the berm to acceptable dimensions.



Pensacola ODMDS SMMP

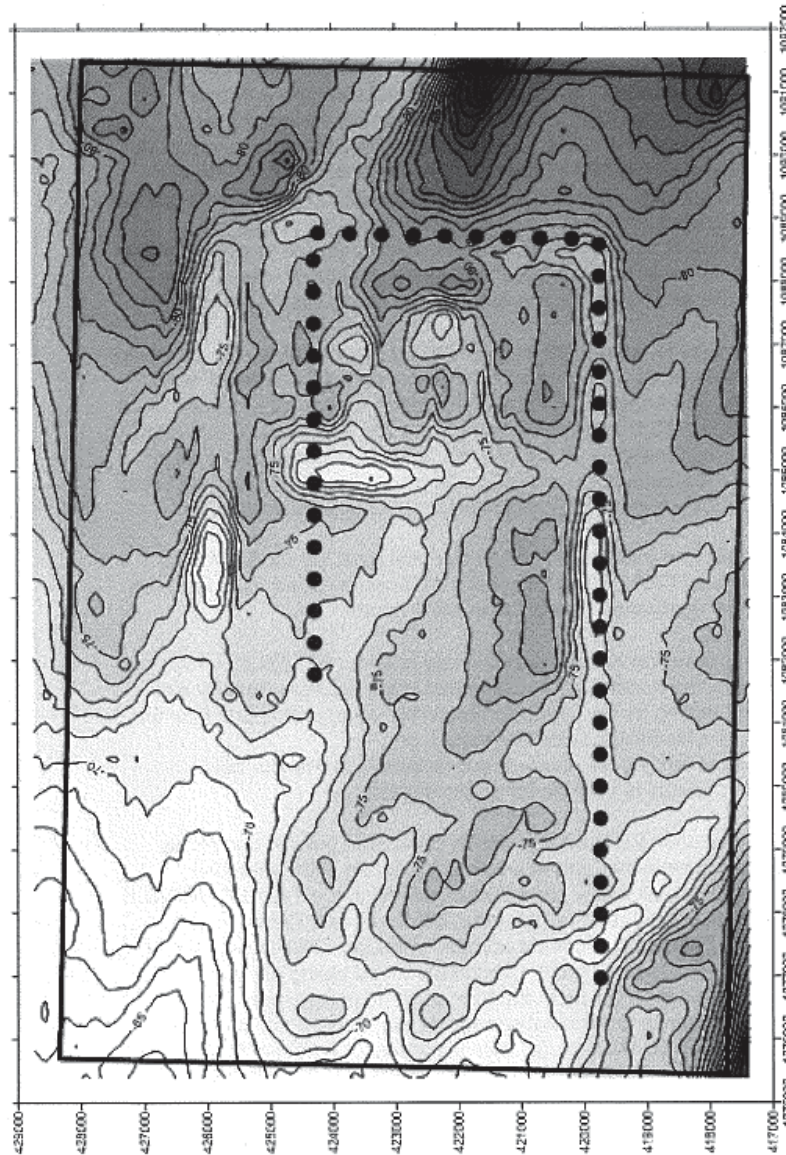


Figure 5: Hydrographic survey of Pensacola Offshore ODMDS, 2014 Including Berm Alignment

Pensacola ODMDS SMMP

2.4 Material Suitability. USACE Beneficial Use of Dredged Material Engineer Manual (EM) 1110-2-5026 requires dredged material be maximized within the coastal system. Dredged materials that qualify for beach or near-shore disposal per applicable State of Florida standards shall be beneficially placed in such locations, to the maximum extent practicable, and the State of Florida will exercise its authority and responsibility during any future permitting activities. Beneficial use of compatible dredged material for beach nourishment is strongly encouraged and supported by EPA. All sandy material from the lower portion of the Federal Pensacola navigation project, including the entrance channel, is typically placed on Escambia County, Florida beaches for nourishment instead of ocean disposal. In fact, the USACE manages its dredged material under its Regional Sediment Management (RSM) initiative to be used beneficially and remain within the natural sediment budget. As a result, the USACE evaluates the whole coastal system when managing dredged material placement rather than focusing on an individual project. Disposition of beach quality sand should be planned to allow material to be placed so that it will be within or accessible to the sand-sharing system, to the maximum extent practicable, and following provisions of the Clean Water Act (CWA).

Two potential sources of material are expected to be placed at the site, new work and maintenance dredged material. These materials will consist of mixtures of silts, clays, and sands in varying percentages. Sediments dredged for navigational purposes in the Pensacola Harbor and NAS Pensacola Channels include an ocean source (sandy, littoral materials), river source (fine-grained sands, silts, and clays derived from easily eroded soils from the upper Escambia River basin), and mixtures of both. Shoals occur where specific physical factors promote deposition or movement of sediments.

The suitability of dredged material for ocean disposal must be verified by the USACE and concurred with by EPA prior to disposal. Verification will be valid for three years from the most current verification. Verification will involve:

- 1) a case-specific evaluation against exclusionary criteria (40 CFR 227.13(b)),
- 2) a determination of the necessity for testing including bioassay (toxicity and bioaccumulation) testing for non-excluded material based on the potential for contamination of the sediment since last tested, and
- 3) carrying out the testing (where needed) and determining that the non-excluded, tested material is suitable for ocean disposal.

Verification documentation for suitability will be completed prior to use of the ODMDS. Documentation will be in the form of a MPRSA Section 103 Evaluation. Potential testing and Evaluation will follow procedures outlined in the 1991 EPA/USACE Dredged Material Testing Manual (Green Book) and 2008 Southeast Regional Implementation Manual (SERIM) or appropriate updated versions. This includes how dredging projects will be subdivided into project segments for sampling and analysis. The MPRSA Section 103 Evaluation will be in the form outlined in Appendix C of the SERIM. Water Quality Compliance determinations will be made using the short-term fate of dredged material (STFATE-ADDAMS) model. Only material determined to be suitable and in compliance with the Ocean Dumping Criteria (40 CFR §227) through the verification process by the USACE and EPA, Region 4 can be disposed in the ODMDS. In addition, the site has been restricted to predominantly fine-grained material that is not suitable for beach nourishment or that does not have a median grain size of > 0.125 mm and a composition of < 10 % fines.

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2.5 Timing of Disposal. At present, no restrictions have been determined to be necessary for disposal related to seasonal variations in ocean current or biotic activity. As monitoring results are compiled, should any such restrictions appear necessary, disposal activities will be scheduled so as to avoid adverse impacts. Monitoring and precautions necessary to protect sea turtles and Gulf sturgeon, as described in *Section 2.6*, are required when using hopper dredges. Additionally, if new information indicates that endangered or threatened species are being adversely impacted, restrictions may be implemented.

2.6 Disposal Techniques. No specific disposal technique is required for this site. In order to protect sea turtles and Gulf sturgeon, the NMFS requires monitoring according to guidance outlined in the *Regional Biological Opinion for Dredging of Gulf of Mexico Navigation Channels and Sand Mining ("Borrow") Areas Using Hopper Dredges by USACE Galveston, New Orleans, Mobile, and Jacksonville Districts* (NMFS, 2003, amended 2005 & 2007) with all standard surveillance and evasive measures to protect sea turtles employed during all placement operations at the Pensacola Offshore ODMDs. "Standard manatee conditions: issued by the USFWS would be followed to minimize adverse impacts to marine mammals within the project area.

2.7 Disposal Location. Disposal shall occur no less than 330 feet (100 meters) inside the site boundaries to comply with 40 CFR §227.28. Disposal methods to prevent mounding of dredged material from becoming an unacceptable navigation hazard will be used. Dredged material shall be placed so that at no point will depths be less than -55 feet MLLW. To maximize Pensacola Offshore ODMDs capacity and minimize mounding of material, disposal events shall be scattered throughout specified disposal zones through consultation with USACE and EPA, Region 4 staff. Depths will be monitored to detect if adjustments to disposal methods are needed to prevent unacceptable mounding. While control of disposal to minimize mounding is preferred, the physical removal or leveling of material above -55 feet MLLW is a management alternative should mounds greater than those elevations occur.

2.8 Permit and Contract Conditions. Pre and post-disposal monitoring requirements described under *Section 3.0 Site Monitoring* will be included as conditions on all MPRSA Section 103 permits and will be incorporated in the contract language for all Federal projects. A summary of the management and monitoring requirements to be included are listed in **Table 4**.

Pensacola ODMS SMMP

Table 4: Summary of Permit and Contract Conditions

Condition	Reference
Dredged Material Suitability and Term of Verification	Pensacola Offshore ODMS SMMP page 12
Disposal within Appropriate Zones	Pensacola Offshore ODMS SMMP page 13
Post Bathymetric Surveys within 30 days of Project Completion	Pensacola Offshore ODMS SMMP page 18
Disposal Monitoring and Recording of Disposal Locations	Pensacola Offshore ODMS SMMP page 17&18
Reporting Requirements: Daily & Monthly Operations Reports and Disposal Summary Reports within 90 Days of Project Completion	Pensacola Offshore ODMS SMMP page 21&22

2.9 Permit Process. All ocean disposal of dredged material, with exception of Federal Civil Works projects, requires an ocean dumping permit issued by the USACE pursuant to Section 103 of the MPRSA. A summary of the permitting process can be found in 33 CFR Parts 320-325.

2.10 Information Management of Dredged Material Disposal Activities. As discussed in the following sections, a substantial amount of diverse data regarding use of the Pensacola Offshore ODMS and effects of disposal is required from many sources (EPA, USACE, Navy, and Port of Pensacola). If this information is readily available and in a useable format, it can be used to answer many questions typically asked about a disposal site:

- o What is being dredged?
- o How much is being dredged?
- o Where did the dredged material come from?
- o Where was the dredged material placed?
- o Was material dredged correctly? Placed correctly?
- o What will happen to the environment at the disposal site?

As part of site management, EPA and the USACE will investigate alternatives for appropriate data management. The USACE has an Ocean Disposal Database maintained by ERDC. This database provides quantities placed at the Pensacola Offshore ODMS along with chemical, physical, and biological information, and whether the project is civil works or a privately permitted action.

The Mobile District Spatial Data Branch (CESAM-OP-J) has created an online Sediment Sampling Mapping Module that has capacity to organize and access all data relating to core borings and sediment testing activity. This application will allow users to retrieve detailed sediment sample properties (e.g. X, Y locations, harbor bottom elevations, top of rock elevation, or material characteristics) correlating with all relevant sediment testing (chemical, biological, or physical) results, and link related documents such as core borings, gradation curves or sediment testing reports.

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In an attempt to streamline data sharing, EPA Region 4 and USACE, SAD has agreed on an eXtensible Markup Language (XML) standard for sharing of disposal monitoring data (see also *Section 3.5*).

3.0 SITE MONITORING.

The MPRSA establishes the need for including a monitoring program as part of the SMMP. Site monitoring is conducted to ensure the environmental integrity of a disposal site and the surrounding areas are unharmed and to verify compliance with site designation criteria, any special management conditions, and with permit/concurrence requirements. Monitoring programs should be flexible, cost effective, and based on scientifically sound procedures and methods to meet site-specific monitoring needs. A monitoring program should have the ability to detect environmental change as a result of disposal activities and assist in determining compliance. The intent of the program is to provide the following:

- (1) Information indicating whether the disposal activities are occurring in compliance with permit and site restrictions; and/or
- (2) Information concerning short-term and long-term environmental impacts of disposal; and/or
- (3) Information indicating short-term and long-term fate of materials placed in the marine environment.

The main purpose of a disposal site monitoring program is to determine whether dredged material site management practices, including disposal operations need to be changed to avoid significant adverse impacts.

Table 5 lists surveys and studies conducted at, or in the vicinity of, the Pensacola Offshore ODMDS dating back to 1986.

Table 5: Surveys and Studies Conducted at or in the vicinity of the Pensacola Offshore ODMDS				
Survey/Study Title	Conducted By:	Date	Purpose	Results
Summary of Currents off Pensacola, FL	Physical Oceanography Division, Naval Ocean Research & Development Activity	July 1998	Document currents in the potential dredged material disposal site as part of Navy homeport project	Currents were non-tidal, wind driven, westward and parallel to the coast
Water Quality and Sediment Data	EPA	Nov 1986, Apr 1987, and July 1987	Determine water quality and sediment characteristics at the Pensacola Offshore ODMDS	Predominantly medium and coarse sands at the ODMDS. Sediments analyzed for metals, nutrients, oil and grease, pesticides and PCBs were either below MDLs or in very low concentrations. Salinity, temp, DO, and %light transmission were normal for water quality parameters

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Pensacola Offshore ODMS Benthic Communities Study		Nov 86 & Apr 87	Benthic community characterization	Infaunal communities characteristic of medium and coarse grain sediments of the northern Gulf of Mexico; dominated by polychaetes.
Characteristics of Dredged Material Proposed for Disposal	Dredged Materials Research Team, EPA	Aug 1988	Determine effects of dredged material on representative marine organisms	Proposed dredge material were not acutely toxic nor were chemicals in them bio-available for accumulation to concentrations of concern.
Video, Still Photography and Side Scan Sonar		1989		No live/hard bottoms detected
Bathymetric Survey	USACE	1989	Monitor bathymetry changes	Depths at the ODMS range from -60 to -95 feet with an average of -76 feet MLLW.
Disposal Monitoring	Navy	1989-90	Compliance	Insured dredged material was placed within the ODMS in specified area.
Post Disposal Bathymetric Survey	USACE	1990	Monitor bathymetry changes	Dredged material was placed within designated area and berm was verified.
Post Disposal Sediment Mapping	EPA	Apr & Oct 90; Oct 93	Map sediment distribution patterns	Dredged material was distinguishable from bottom sediment; migration was as predicted
Post Disposal Benthic Communities assessment	EPA	Oct 90 & 93	Evaluate benthic community parameters within and outside of dredged material influences	No adverse impacts to benthic communities as a result of dredged material disposal
Bathymetric Survey	EPA	2/2001	Monitor bathymetry changes	Berm still distinguishable. Disposed material within ODMS.
Evaluation of Dredged Material from Pensacola Harbor, Escambia County, Florida	USACE	5/2002	Evaluate suitability of proposed dredged material for ocean disposal	Proposed dredged material is primarily silts and clays. Bulk sediment analysis; elutriate testing, water column bioassays, whole sediment bioassays, and bioaccumulation studies resulted in acceptable levels for ocean disposal.
Bathymetric Survey	USACE	9/2003	Monitor bathymetry changes	Berm still distinguishable. Disposed material within ODMS. Collect bathymetric data to evaluate site for determining future disposal areas within ODMS.

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Bathymetric Survey	USACE	8/2004	Post-disposal surveys. Emergency dredging of Pensacola Harbor.	Material from emergency dredging of Pensacola Harbor placed within ODMDS. Site features remain distinguishable.
Bathymetric Survey	USACE	11/2004	Post-disposal surveys. O&M dredging of Pensacola Harbor.	Material from emergency dredging of Pensacola Harbor placed within ODMDS. Site features remain distinguishable.
Evaluation of Dredged Material from Lower Pensacola Harbor Post Deepwater Horizon Oil Spill	USACE	3/2012	Evaluate suitability of proposed dredged material for ocean disposal post oil spill.	Results of PAH and TPH testing of surface sediments showed no discernible evidence that sediment quality had been impacted by the Deepwater Horizon Oil spill.
Evaluation of Dredged Material from Pensacola Harbor, Escambia County, Florida	USACE	5/2013	Evaluate suitability of proposed dredged material for ocean disposal.	Proposed dredged material is primarily silts and clays. Bulk sediment analysis; elutriate testing, water column bioassays, whole sediment bioassays, and bioaccumulation studies resulted in acceptable levels for ocean disposal.
Status and Trends Assessment (40 CFR §228.13)	EPA	9/2013	To determine the physical, chemical, geological, and biological structure of the ODMDS	Benthic community is viable and healthy and in recovery with no adverse effects of disposal of dredged material.
Bathymetric Survey	USACE	11/2014	Post-disposal surveys. O&M dredging of Pensacola Harbor.	Material from O&M dredging of Pensacola Harbor placed within ODMDS. Site features remain distinguishable.

3.1 Baseline Monitoring. Disposal has occurred at the site since the late 1980's for Pensacola Navy channel dredging operations, emergency dredging of the Pensacola inner harbor in 2004, and O&M dredging of the Pensacola Federal navigation channel in 2013 and 2014. Prior to 1990, and as part of the *Final Environmental Impact Statement for Designation of a New Ocean Dredged Material Disposal Site, Pensacola, Florida* dated 1988, numerous surveys and studies have been conducted at the Pensacola Offshore ODMDS in relation to disposal activities. Detailed results of these studies provide a baseline and are presented in the aforementioned designation FEIS. Those studies and subsequent surveys listed in **Table 5** serve as the main body of data for monitoring impacts associated with the use of the Pensacola Offshore ODMDS. Both pre and post-disposal surveys will be conducted associated with future dredging and disposal activities.

3.2 Disposal Monitoring. For all disposal activities, an electronic tracking system (ETS) must be utilized. The ETS will provide surveillance of the transportation and disposal of dredged material. The ETS will be maintained and operated to continuously track the horizontal location and draft condition (accuracy± 0.1 foot) of the disposal vessel (i.e. hopper or scow) from the point of dredging to the disposal site and return to the point of dredging. Data shall be collected at least every 0.25 nautical mile or every 4 minutes

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during travel to and from the Pensacola Offshore ODMDS and twelve seconds or every 30 feet of travel, while the hull status is open within the Pensacola Offshore ODMDS. In addition to the continuous tracking data, the following trip information shall be electronically recorded for each dredging and disposal cycle:

- a. Load Number
- b. Disposal Vessel Name and Type (e.g. hopper, scow)
- c. Estimated volume of Load
- d. Description of Material Placed
- e. Source of Dredged Material
- f. Date, Time and Location at Initiation and Completion of Disposal Event

It is expected that disposal monitoring will be conducted utilizing the Dredging Quality Management (DQM) system for Civil Works projects [see <http://dqm.usace.army.mil/Specifications/Index.aspx>], although other systems are acceptable. Disposal monitoring and ETS data will be reported to EPA Region 4 on a weekly basis (within 1 week of disposal) utilizing the eXtensible Markup Language (XML) specification and protocol per *Section 3.5*. EPA Region 4 and USACE, Mobile District shall be notified within 24 hours if disposal occurs outside of the Pensacola Offshore ODMDS or specified disposal zone, or if excessive leakage occurs.

3.3 Post-Disposal Monitoring. The USACE or other site user will conduct a bathymetric survey within 30 days after disposal project completion. [Surveys will not be required for projects less than 50,000 cubic yards]. Surveys will conform to the minimum performance standards for Corps of Engineers Hydrographic Surveys as described in the USACE Engineering Manual, EM1110-2-1003, *Hydrographic Surveying*, dated November 30, 2013 [http://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM_1110-2-1003.pdf] or updates. Surveys will be taken along lines spaced at 500-foot intervals or less. The minimum performance standards from Table 3-1 in *Hydrographic Surveying* shall be followed. Horizontal location of the survey lines and depth sounding points will be determined by an automated positioning system utilizing a differential global positioning system. The vertical datum will be referenced to prescribed NOAA Mean Lower Low Water (MLLW) datum. The horizontal datum should be referenced to the local State Plane Coordinate System (SPCS) for the Pensacola area (Florida North – 0903) or in Geographical Coordinates (latitude-longitude). The horizontal reference datum should be the North American Datum of 1983 (NAD 83).

The number and length of transects required will be sufficient to encompass the Pensacola Offshore ODMDS and a 500-foot wide area around the disposal zone. The survey area may be reduced on a case-by-case basis if disposal zones are specified and adhered to.

3.4 Material Tracking and Disposal Effects Monitoring. Surveys can be used to address possible changes in bathymetric, sedimentological, chemical, and biological aspects of the Pensacola Offshore ODMDS and surrounding area as a result of the disposal of dredged material at the site.

3.4.1 Summary of Results of Past Monitoring Surveys. Table 5 lists past surveys at the Pensacola Offshore ODMDS. In general, the surface of the site is covered by sand waves dominated by coarse and medium sand with varying amounts of shell fragments. Bottom current data within the Pensacola Offshore ODMDS indicates that fine-grained dredged material has the potential to be dispersed beyond the

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designated site boundaries. The original purpose for the creation and design of the berm structure was to restrict the dredged material migration to only a generally southwest direction. The seafloor has a natural depression along that orientation that leads to deeper waters. USACE bathymetric surveys indicate the submerged berm structure was stable and acted to manage dispersion of finer grained dredged material.

The most recent monitoring of the Pensacola Offshore ODMDS was completed in September 2013 (USEPA, 2014). Results of this survey indicate that the benthic community is viable and the only discernable differences seen were at two sample locations that had been recently disposed on (less than 8 weeks prior to survey). The physical nature of the dredged material in those locations is believed to account for the slow recovery seen at that time.

3.4.2 Future Monitoring Surveys. Based on the type and volume of material placed and impacts of concern, various monitoring surveys can be used to examine if, and the direction, placed dredge material is moving, and what environmental effect the material is having on the site and adjacent areas.

Within 30 days of completion of a disposal event, detailed bathymetric surveys of the disposal area will be completed. The interagency team will meet, if necessary, to review the results of these efforts and determine the need for additional information. This need will be based on observance of any anomalies (i.e. potential cultural resources) or potential adverse impacts associated with a specific event. If the results of the bathymetric surveys do not indicate any anomalies or adverse impacts, no additional monitoring will be required for the disposal event. Reassessment of the site will be undertaken in accordance with 40 CFR §228.13 approximately every 10 years. Status and trend assessments include characterization of water quality, benthic communities, and sediment size/chemistry allowing for identification and interpretation of changes in community structure. Additional surveys for water quality, sediment mapping, or the use of remote sensing equipment may also be required.

At the current time, no nearby biological resources have been identified that are of concern for potential impact. The Pensacola Offshore ODMDS is at least two nautical miles from known fish havens, artificial reefs, and fishing areas. The site has been designated as dispersive. This means that it is expected material will be moved outside the site boundaries. It is also expected material will not move in distinct mounds, but instead will blend with the surrounding environment causing a progressive transition to sediments containing a higher percentage of silt and clay. Changes in sediment composition will likely alter the benthic community structure. However, based on previous benthic studies, it is unlikely that permanent or long-term adverse impacts will result due to changes in sediment composition.

Future surveys as outlined in **Table 6** will focus on determining the rate and direction of placed dredge material dispersal and the capacity of the Pensacola Offshore ODMDS. The management plan presented may require revision based on the outcome of any monitoring program.

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Table 6: Pensacola Offshore ODMSD Monitoring Strategies and Thresholds for Action

Goal	Technique	Sponsor	Rationale	Frequency	Threshold for Action	Management Options	
						Threshold Not Exceeded	Threshold Exceeded
Monitor Bathymetric Trends	Bathymetry	Site User	Determine the extent of the disposal mound and major bathymetric changes	Post Disposal for projects greater than 50,000 cy	Disposal mound occurs outside ODMSD boundaries	Continue Monitoring	-Modify disposal method/disposal -Restrict disposal volumes
Benthic Effects Monitoring & Trend Assessment (40 CFR 228.13)	Water and Sediment Quality, Benthic Community Analysis	EPA	Periodically evaluate the impact of disposal on the marine environment (40CFR 228.9)	Approximately every 10 years	-Absence from the site of pollution sensitive biota -Progressive non-seasonal changes in water or sediment quality	Continue Monitoring on prescribed schedule	-Conduct Environmental Effects Monitoring or Advanced Environmental Effects Monitoring -Review dredged material evaluation
Environmental Effects Monitoring	Chemical Monitoring	EPA/USACE	Determine if chemical contaminants are significantly elevated ¹ within and outside of site boundaries Determine whether there are adverse changes in the benthic populations outside of the site and evaluate recovery rates	Implement if disposal footprint extends beyond the site boundaries or if Trend Assessment results warrant.	Contaminants are found to be elevated ¹	Discontinue monitoring.	- Institute Advanced Environmental Effects Monitoring - Implement case specific management options (i.e. Remediation, limits on quantities or types of material). -Consider isolating dredged material (capping)
	Benthic Monitoring				Adverse changes observed outside of the site that may endanger the marine environment		
Advanced Environmental Effects Monitoring	Tissue Chemical Analysis	EPA/USACE	Determine if the site is a source of adverse bioaccumulation which may endanger the marine environment	Implement if Environmental Effects Monitoring warrants	Benthic body burdens and risk assessment models indicate potential for food chain impacts.	Discontinue monitoring	-Discontinue site use - Implement case specific management options (i.e. Remediation, limits on quantities or types of material).
	Benthic Monitoring		Determine if the site is a source of adverse sub-lethal ² changes in benthic organisms which may endanger the marine environment		Sub-lethal effects are unacceptable.		

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Site Capacity	MPFATE/ Long Term Fate	USACE/ Site Users	Determine dispersiveness of site and long and short term capacity	As resources allow	New work volumes exceed estimated capacity	Continue to use site without restrictions	- Enlarge site or designate additional site for new work
Long-term Fate	Modeling	EPA/US ACE	Determine dispersiveness of site and aerial extent of impact	As resources allow	Aerial extent of impact reaches resources of concern and/or increases over time	Continue to use site without restrictions	-Restrict disposal volumes -Create berms to decrease dredged material transport -Cease site use / designate new site
	Current Meter & Wave Gauge	EPA/US ACE/Site User					
	Precision Bathymetry	EPA/US ACE					
Insure Safe Navigation Depth	Bathymetry	Site User	Determine height of mound and any excessive mounding	Post Disposal for projects greater than 50,000 cy	Mound height > -55 feet MLLW	Continue Monitoring	-Modify disposal method -Restrict disposal volumes
					Mound height > -50 feet MLLW	Continue Monitoring	- Halt disposal - Physically level material
Compliance	Disposal Site Use Records	Site User	-Ensure management requirements are being met -To assist in site monitoring	Daily during the project	Disposal records required by SMMP are not submitted or are incomplete	Continue Monitoring	-Restrict site use until requirements are met
					Review of records indicates a dump occurred outside ODMDS boundary	Continue Monitoring	-Notify EPA, Region 4/USACE, and investigate why egregious dump(s) occurred. Take appropriate enforcement action.
					Review of records indicates a dump occurred in the ODMDS but not in target area	Continue Monitoring	-Direct disposal to occur as specified.

¹ Significantly elevated: Concentrations above the range of contaminant levels in dredged sediments that the Regional Administrator and the District Engineer found to be suitable for disposal at the ODMDS.

² Examples of sub-lethal effects include without limitation the development of lesions, tumors, development abnormality, and/or decreased fecundity.

3.5 Reporting and Data Formatting. Disposal monitoring data shall be provided electronically by the USACE Project Manager to EPA Region 4. Disposal monitoring data shall be provided to EPA Region 4 electronically on a weekly basis (within one week of disposal event). Data shall be provided per the EPA Region 4 XML format and delivered as an attachment to an email to DisposalData.R4@epa.gov. The XML format is available from EPA Region 4.

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Disposal summary reports shall be provided to EPA within 90 days after project completion. These reports should include: vessel name, disposal start and end dates and times; dredging project; volume disposed, number of loads completed, type of material disposed; contractor conducting the work, permit and/or contract number; identification of any misplaced material; and dates of bathymetric surveys of the Pensacola Offshore ODMDS. The disposal summary reports should be accompanied by the bathymetry survey results (contour plot and X, Y, Z ASCII data file). These reports can be accessed by USACE personnel at the DQM Website <http://dqm-portal.usace.army.mil>.

The user will be required to prepare and submit to the USACE daily reports of operations and a monthly report of operations for each month or partial month's work. The user is also required to notify the USACE and the EPA within 24 hours (or next business day) if a violation of the permit and/or contract conditions occur during disposal operations. In the case of large new work projects where the material is expected to consist of stiff clays, it is recommended that mid-project bathymetric surveys be conducted of the disposal area to insure that mounding limits are not being exceeded.

4.0 ANTICIPATED SITE USE.

It is anticipated that there will be a need for use of the Pensacola Offshore ODMDS for many years. The anticipated site is projected for dredged material disposal of approximately 350,000 cys of dredged material on a 2 to 3 year basis. This projection is based on shoaling rates, past dredging records, currently available dredged material disposal options, and USACE planning documents.

5.0 MODIFICATION OF THE PENSACOLA OFFSHORE ODMDS SMMP.

If the results of the monitoring surveys or validation reports from other sources indicate that continued use of the Pensacola Offshore ODMDS would lead to unacceptable effects, then ODMDS management will be modified to mitigate those effects. The SMMP will be reviewed and updated at least every 10 years or if necessary if site use changes significantly. For example, the SMMP will be reviewed if the quantity or type of dredged material placed on site changes significantly or if conditions at the site indicate a need for revision. The plan should be updated in conjunction with activities authorizing use of the site.

6.0 IMPLEMENTATION OF THE PENSACOLA OFFSHORE ODMDS SMMP.

This plan shall be effective from date of signature for a period not to exceed 10 years. The plan shall be reviewed and revised more frequently if site use and conditions at the site indicates a need for revision. The EPA and USACE shall share responsibility for implementation of the SMMP. Site users may be required to undertake monitoring activities as a condition of their permit. The USACE will be responsible for implementation of the SMMP for Federal new work and maintenance projects.

7.0 REFERENCES.

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APPENDIX A

**WATER COLUMN EVALUATIONS NUMERICAL
MODEL (STFATE) INPUT PARAMETERS**

Pensacola ODMDS SMMP

Water Column Evaluations Numerical Model
(STFATE) Input Parameters Pensacola
Offshore ODMDS

SITE DESCRIPTION		
Parameter	Value	Units
Number of Grid Points (left to right)	45	
Number of Grid Points (top to bottom)	45	
Spacing Between Grid Points (left to right)	750	ft
Spacing Between Grid Points (top to bottom)	500	ft
Constant Water Depth	75	ft
Roughness Height at Bottom of Disposal Site	.005 ¹	ft
Slope of Bottom in X-Direction	0	Deg.
Slope of Bottom in Z-Direction	0	Deg.
Number of Points in Ambient Density Profile Point	3	
Ambient Density at Depth = 1 ft	1.0248	g/cc
Ambient Density at Depth = 36 ft	1.0267	g/cc
Ambient Density at Depth = 75 ft	1.0271	g/cc
AMBIENT VELOCITY DATA		
Parameter	Value	Units
Profile	2-Point at constant depth	
X-Direction Velocity at Depth = 30 ft	0.0	ft/sec
Z-Direction Velocity at Depth = 30 ft	-0.722	ft/sec
X-Direction Velocity at Depth = 56 ft	0.0	ft/sec
Z-Direction Velocity at Depth = 56 ft	-0.525	ft/sec
DISPOSAL OPERATION DATA		
Parameter	Value	Units
Location of Disposal Point from Top of Grid	11,250 ²	ft
Location of Disposal Point from Left Edge of Grid	16,875 ²	ft
Dumping Over Depression	0	
INPUT, EXECUTION AND OUTPUT		
Parameter	Value	Units

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Location of the Upper Left Corner of the Disposal Site - Distance from Top Edge	6,000	ft
Location of the Upper Left Corner of the Disposal Site - Distance from Left Edge	6,375	ft
Location of the Lower Right Corner of the Disposal Site - Distance from Top Edge	16,500	ft
Location of the Lower Right Corner of the Disposal Site - Distance from Left Edge	27,375	ft
Duration of Simulation	14,400	sec
Long Term Time Step	600	sec

COEFFICIENTS

Parameter	Keyword	Value
Settling Coefficient	BETA	0.000 ¹
Apparent Mass Coefficient	CM	1.000 ¹
Drag Coefficient	CD	0.500 ¹
Form Drag for Collapsing Cloud	CDRAG	1.000 ¹
Skin Friction for Collapsing Cloud	CFRIC	0.010 ¹
Drag for an Ellipsoidal Wedge	CD3	0.100 ¹
Drag for a Plate	CD4	1.000 ¹
Friction Between Cloud and Bottom	FRICTN	0.010 ¹
4/3 Law Horizontal Diffusion Dissipation Factor	ALAMDA	0.001 ¹
Unstratified Water Vertical Diffusion Coefficient	AKYO	Pritchard Expression
Cloud/Ambient Density Gradient Ratio	GAMA	0.250 ¹
Turbulent Thermal Entrainment	ALPHAO	0.235 ¹
Entrainment in Collapse	ALPHAC	0.100 ¹
Stripping Factor	CSTRIP	0.003 ¹

¹Model default value

²Represents center of disposal site. Dredged material requiring disposal in another location in order to meet the dilution criteria must be brought to the attention of EPA and the USACE.

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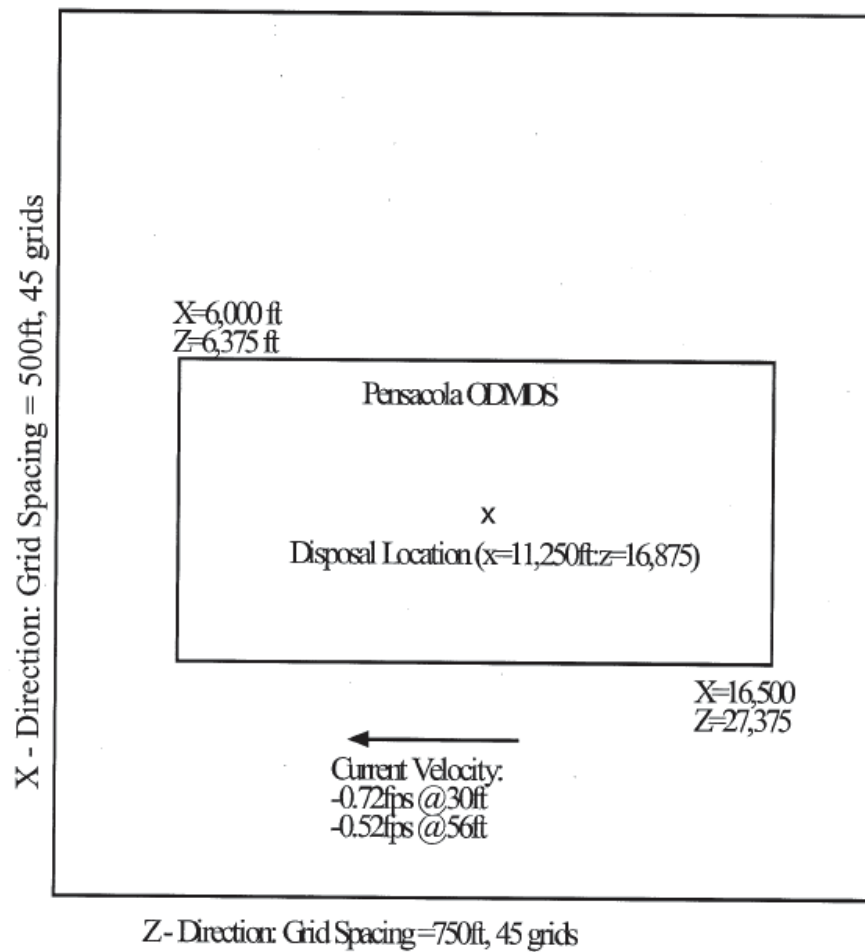
Pensacola Offshore ODMDS Background Water Concentrations

Chemicals of concern	Background Concentrations (ug/L)
Arsenic	1.14
Cadmium	0.004 ¹
Chromium	0.21
Copper	0.229
Lead	0.041
Mercury	0.1 ¹
Nickel	0.64
Selenium	0.5 ¹
Silver	0.01 ¹
Zinc	0.59
Tributyltin (TBT)	0.025 ¹
Aldrin	0.001 ¹
Chlordane	0.001 ¹
DDT	0.0025 ¹
Dieldrin	0.001 ¹
alpha-Endosulfan	0.001 ¹
beta-Endosulfam	0.002 ¹
Endrin	0.002 ¹
gamma-BHC (Lindane)	0.0005 ¹
Heptachlor	0.00075 ¹
Heptachlor epoxide	0.001 ¹
Toxaphene	0.1 ¹
Pentachlorophenol	5.33 ¹

Values derived from Pensacola Offshore ODMDS Trend Assessment Study (2013)

¹ Analyte not detected. Value based on one half the reporting limit.

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APPENDIX B

**GENERIC SPECIAL CONDITIONS FOR
MPRSA SECTION 103 PERMITS
PENSACOLA OFFSHORE ODMDs**

I. DISPOSAL OPERATIONS

A. For this permit, the term disposal operations shall mean: navigation of any vessel used in disposal operations, transportation of dredged material from the dredging site to the Pensacola Offshore ODMDs, proper disposal of dredged material at the disposal area within the Pensacola Offshore ODMDs, and transportation of the hopper dredge or disposal barge or scow back to the dredging site.

B. The boundary coordinates of the Pensacola Offshore ODMDs is defined as the rectangle delineated by the following latitude/longitude and State Plane Coordinate system (zone 0903 Florida North) NAD 83 coordinates:

Latitude 30°08'50" N	Longitude 87°19'30" W
Latitude 30°08'50" N	Longitude 87°16'30" W
Latitude 30°07'05" N	Longitude 87°16'30" W
Latitude 30°07'05" N	Longitude 87°19'30" W

State Plane 0903 (Florida North)	
Northing 428347.51	Easting 1075701.81
Northing 427959.37	Easting 1091501.16
Northing 417355.53	Easting 1091243.06
Northing 417743.77	Easting 1075439.07

C. No more than [NUMBER] cubic yards of dredged material excavated at the location defined in [REFERENCE LOCATION IN PERMIT] are authorized for disposal at the Pensacola Offshore ODMDs. The permittee agrees and understands that all dredged material will be placed in such a manner that its highest point will not exceed -55 feet MLLW.

D. The permittee shall use an electronic positioning system to navigate to and from the Pensacola Offshore ODMDs. For this section of the permit, the electronic positioning system will be as per the DQM specifications. If the electronic positioning system fails or navigation problems are detected, all disposal operations shall cease until the failure or navigation problems are corrected.

E. The permittee shall certify the accuracy of the electronic positioning system proposed for use during disposal operations at the Pensacola Offshore ODMDs. The certification shall be accomplished by providing current certification documentation from the National DQM Program for scow and hopper dredge instrumentation systems. The National DQM certification is valid for one year from the date of certification.

F. The permittee shall not allow any water or dredged material placed in a hopper

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dredge or disposal barge or scow to flow over the sides or leak from such vessels during transportation to the Pensacola Offshore ODMDS. In addition, the permittee understands that no debris is to be placed in the Pensacola Offshore ODMDS.

G. A disposal operations inspector and/or captain of any tug boat, hopper dredge or other vessel used to transport dredged material to the Pensacola Offshore ODMDS shall insure compliance with disposal operation conditions defined in this permit.

1. If the disposal operations inspector or the captain detects a violation, he shall report the violation to the permittee immediately.

2. The permittee shall contact the U.S. Army Corps of Engineers (USACE), Mobile District's Regulatory Branch at (251) 690-2658 and EPA Region 4 at (404) 562-9395 to report the violation within twenty-four (24) hours after the violation occurs. A complete written explanation of any permit violation shall be included in the post-dredging report.

H. When dredged material is placed at the ODMDS, no portion of the hopper dredge, disposal barge, or scow shall be outside the boundaries of the Pensacola Offshore ODMDS as defined in Special Condition B. Additionally, disposal shall occur within a specified disposal zone defined as [DEFINE COORDINATES AND SIZE OF DISPOSAL ZONE].

I. The permittee shall use an automated disposal verification system that is certified by the National DQM program to continuously track the horizontal location and draft condition of the disposal vessel (hopper dredge or disposal barge or scow) to and from the Pensacola Offshore ODMDS. This real-time information is available on-line to the Mobile District and will be provided to the EPA Region 4 via an FTP site on a weekly basis.

J. The permittee shall conduct a bathymetric survey of the Pensacola Offshore ODMDS within two months prior to project disposal and within 30 days following project completion.

1. The number and length of the survey transects shall be sufficient to encompass the Pensacola Offshore ODMDS and a 1500-foot wide area around the site. Transects shall be spaced at 500-foot intervals or less.

2. Vertical accuracy of the survey shall be ± 0.5 feet. Horizontal location of the survey lines and depth sounding points will be determined by an automated positioning system utilizing either microwave line of site system or differential global positioning system. The vertical datum shall be mean lower low water (mllw) and the horizontal datum shall use Florida State Plane or latitude and longitude coordinates (North American Datum 1983). State Plane coordinates shall be reported to the nearest 0.10- foot and latitude and longitude coordinates shall be reported as degrees and decimal minutes to the nearest 0.01 minutes.

K. The permittee has read and agrees to assure that they are in compliance with the requirements of the Pensacola Offshore ODMDS Site Management and Monitoring Plan (SMMP).

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II. REPORTING REQUIREMENTS

A. The permittee shall send USACE, Mobile District's Coastal Environment Team and EPA Region 4's Oceans, Wetlands and Streams Protection Branch (61 Forsyth Street, Atlanta, GA 30303) a notification of commencement of work at least thirty (30) days before initiation of any dredging operations authorized by this permit and referenced by the permit number. In addition, the permittee agrees to contact the U.S. Coast Guard (Marine Safety Office) at 251-441-5674 prior to disposing of any material in the ocean disposal site.

B. The permittee shall submit to USACE weekly disposal monitoring reports. These reports shall contain the information described in Special Condition I.1.

C. The permittee shall develop and send one (1) copy of the disposal summary report to the Mobile District's Regulatory Branch and one (1) copy of the disposal summary report to EPA Region 4 documenting compliance with all general and special conditions defined in this permit. The disposal summary report shall be sent within 90 days after completion of the disposal operations authorized by this permit. The disposal summary report shall include the following information:

1. The report shall indicate whether all general and special permit conditions were met. Any violations of the permit shall be explained in detail.

2. The disposal summary report shall include the following information: USACE permit number, actual start date and completion date of dredging and disposal operations, total cubic yards disposed at the Pensacola Offshore ODMS, locations of disposal events, and pre and post disposal bathymetric survey results (in hard and electronic formats).

III. PERMIT LIABILITY

A. The permittee shall be responsible for ensuring compliance with all conditions of this permit.

B. The permittee and all contractors or other third parties who perform an activity authorized by this permit on behalf of the permittee shall be separately liable for a civil penalty of up to \$50,000 for each violation of any term of this permit they commit alone or in concert with the permittee or other parties. This liability shall be individual, rather than joint and several, and shall not be reduced in any fashion to reflect the liability assigned to and civil penalty assessed against the permittee or any other third party as defined in 33 U.S.C. Section 1415(a).

C. If the permittee or any contractor or other third party knowingly violates any term of this permit (either alone or in concert), the permittee, contractor or other party shall be individually liable for the criminal penalties set forth in 33 U.S.C. Section 1415(b).

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APPENDIX C

**GENERIC CONTRACT LANGUAGE FOR USE OF
THE PENSACOLA OFFSHORE ODMS**

Pensacola ODMS SMMP

SECTION 35 20 23.23

NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM
HOPPER DREDGE
6/21/2010

PART 1 GENERAL

1.1 DESCRIPTION

The work under this contract requires use of the National Dredging Quality Management Program (DQM), formerly known as Silent Inspector (SI), to monitor the dredge's status at all times during the contract, and to track load number, time-position history, instrument readings, vessel state, compute tons dry solids, report data, and manage data history.

This performance-based specification section identifies the minimum required output and precision and instrumentation requirements. The requirements may be satisfied using equipment and technical procedures selected by the Contractor. For purposes of this document, Contracting Officers Representative (COR) shall include the DQM Support Team personnel when on site.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office responsible for review of the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00, "SUBMITTAL PROCEDURES":

SD-01, Preconstruction Submittals

Dredge Plant Instrumentation Plan Revisions or Addendum; G, SAM-OP-J

Contract Quality Control Plan, section 3.2.5; G, XXX-XX-X (*enter local district*)

SD-06, Test Reports

Data Appropriately Archived e-mail, section 3.2.11; G, XXX-XX-X (*enter local district*)

SD-07, Certificates

Letter of National Dredging Quality Management Program Certification; G, XXX-XX-X (*enter local district*)

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1.3 PAYMENT

No separate payment shall be made for installation, operation and maintenance of the DQM certified system as specified herein for the duration of the dredging operations; all costs in connection therewith shall be considered a subsidiary obligation of the Contractor and covered under the contract unit prices for dredging in the bidding schedule.

1.4 NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM
CERTIFICATION

The Contractor is required to have a current certification from the National Dredging Quality Management Program for the hopper dredge instrumentation system to be used under this contract. Criteria for certification shall be based on the most recent specification posted on the National Dredging Quality Management Program website (<https://si.usace.army.mil/specifications.aspx>). Compliance with these criteria shall be verified by on-site plant inspections conducted by DQM Support Center Inspection Team personnel, and by periodic review of the transmitted data. A National Dredging Quality Management Program Certification is valid for one year from the date of the annual inspection. Certification is contingent upon the system's ability to continuously meet the performance requirements as outlined in sections 3.3 and 3.5. If issues with data quality are not corrected within 48 hours, the system certification shall be revoked and recertification may be necessary.

An Annual Inspection Shall Include:

- A series of quality assurance checks as described in section 3.4 "Compliance Inspection and Quality Assurance Checks"
- Verification of data acquisition and transfer (Section 3.3)
- Review of the Dredge Plant Instrumentation Plan (DPIP) as described in Section 1.5

The dredging contractor shall have personnel who are familiar with the system instrumentation and who have the ability to recalibrate the sensors on site during the inspection. The dredging contractor must provide transportation from the shore to any platform with a DQM certified system for the Contracting Officers Representative in a timely manner. As a general rule, inspection teams will come with PPE consisting of hardhats, steel toe boots, and life jackets. If additional safety equipment is needed, such as eye protection, safety harnesses, work gloves or personal location beacons, these items shall be provided to the team while on site.

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The owner or operator of the dredge shall contact the DQM Support Center Inspection Team at dqmsi@usace.army.mil on an annual basis, or at least three weeks prior to the proposed beginning of dredging, to schedule an inspection. This notification is meant to make the inspection team aware of a target date. At least one week prior to start of dredging, the dredging contractor shall contact the inspection team and verbally coordinate a specific inspection date and location. The contractor shall then follow-up this conversation with a written e-mail confirmation. The owner operator shall coordinate the inspection with all local authorities, including but not limited to, the local USACE contracting officer.

Re-inspection is required for any yard work which produces modification to displacement (i.e. change in dredge lines, repositioning or repainting hull marks), modification to bin volume (change in bin dimensions or addition or subtraction of structure) or changes in sensor type or location; these changes shall be reported in the sensor log section of the DPIP. A system does not have to be transmitting data between jobs, however it may not be turned off, disconnected or removed from the dredge in order to retain its certification during this period.

1.5 DREDGE PLANT INSTRUMENTATION PLAN (DPIP)

The Contractor shall have a digital copy of the DPIP on file with the National DQM Support Center. The Contractor shall also maintain a copy of the DPIP on the dredge which is easily accessible to government personnel at all times. This document shall describe how sensor data will be collected, how quality control on the data will be performed, and how sensors/data reporting equipment will be calibrated and repaired if they fail. A description of computed dredge specific data and how the sensor data will be transmitted to the DQM Database will also be included. The Contractor shall submit to the DQM Support Center any addendum or modifications made to the plan, subsequent to its original submission, prior to start of work.

The DPIP shall include the following as a minimum:
(DPIP must have table of contents in the following order)

1. Dredging Company
 - a. Dredge Point of Contact
 - b. Telephone Number
 - c. Email address
2. Dredge Monitoring System Provider
 - a. Dredge Monitoring System Point of Contact
 - b. Telephone Number
 - c. Email address
3. Dredge Name
4. Sensor data collection method
 - a. Any averaging

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- b. Route from sensor to DQM computer
- 5. DQM Computer Hardware & Components
 - a. Brand names and specifications
 - b. User guides and owner manuals
- 6. Sensor repair, replacement, installation, modification or calibration methods
- 7. Dimensioned Drawings of the Dredge
 - a. A typical plan and profile view of the dredge showing:
 - i. Hopper dredge cross section
 - ii. Locations of required sensors referenced to:
 - (1) Fore and aft perpendicular
 - (2) Hopper dredge length, depth, width, zero reference
 - (3) External hull draft markings (latitudinal, longitudinal, keel)
 - (4) Each other
 - iii. Overall dredge dimensions
 - iv. Dimensions of draghead
 - (1) Length
 - (2) Pipe inside diameter at sensor locations
 - (3) Offset to positioning system antenna
- 8. Criteria and method used to increment load number
- 9. Description of how the UTC date/time stamp is collected
- 10. Positioning system
 - a. Brand name and specifications
 - b. Dredge heading instrumentation brand name and specifications
 - c. Instrument used to calculate Coarse Over Ground (COG)
 - d. Any calculation done external to the instrumentation
 - e. Certificates of calibration and/or manufacturer certificates of compliance
 - f. Description of how dredge speed is determined
- 11. Tide
 - a. Description of how tidal information is entered into the data string.
- 12. Hull status
 - a. Instrumentation brand name and specifications
 - b. Certificates of calibration and/or manufacturer certificates of compliance
 - c. Any calculation done external to the instrumentation
- 13. Drafts:
 - a. Instrumentation brand name and specifications
 - b. Certificates of calibration and/or manufacturer certificates of compliance
 - c. Any calculation done external to the instrumentation
- 14. Displacement:
 - a. Method used by Contractor to calculate displacement based on fore and aft draft
 - b. Method used by Contractor to calculate lightship displacement
 - c. Hydrostatic curves
 - d. Tables listing (fresh and salt water) displacement as a function of draft certified by a licensed marine surveyor/ naval architect independent of the Contractor (feet and tenths of feet)

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- e. These methods and tables shall be an accurate reflection of the current configuration and displacement
- 15. Hopper Ullage:
 - a. Sensor brand name and specifications
 - b. Certificates of calibration and/or manufacturer certificates of compliance
 - c. Any calculation done external to the instrumentation
- 16. Hopper Volume:
 - a. Method used by Contractor to calculate hopper dredge volume based on fore and aft hopper dredge ullage
 - b. Table listing the hopper dredge volume as a function of hopper dredge ullage, certified by a licensed marine surveyor/ naval architect independent of the Contractor (feet and tenths of feet).
 - c. These methods and tables shall be an accurate reflection of the current configuration and volume
- 17. Draghead
 - a. Draghead Depth
 - i. Sensor brand name and specifications
 - ii. Certificates of calibration and/or manufacturer certificates of compliance
 - iii. Any calculation done external to the instrumentation
 - b. Draghead Depth Check
 - i. Method used
 - ii. If applicable, sensor brand name and specifications
 - iii. If applicable, certificates of calibration and/or manufacturer certificates of compliance
 - iv. If applicable, any calculation done external to the instrumentation
 - c. Drag Head Position
 - i. Sensor brand name and specifications
 - ii. Any calculation done external to the instrumentation
 - iii. Certificates of calibration and/or manufacturer certificates of compliance
- 18. Slurry Density and Velocity Sensors:
 - a. Sensor brand name and specifications
 - b. Any calculation done external to the instrumentation
 - c. Certificates of calibration and/or manufacturer certificates of compliance
- 19. Pump RPM
 - a. Sensor brand name and specifications
 - b. Any calculation done external to the instrumentation
 - c. Certificates of calibration and/or manufacturer certificates of compliance
 - d. Description of the pump for which the RPM is reported
- 20. Criteria used to determine
 - a. Minimum pump effort
 - b. Pumping water
 - c. Material recovery
 - d. Pumpout
- 21. Refractometer:

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- a. Brand
- b. Resolution and accuracy
- c. Method of calibration
- 22. Criteria used to determine open/closed status of hopper dredge
- 23. Documentation of:
 - a. Test methods used by the Contractor to provide quality control of data
 - b. Verification that the reported values are applicable for the sensor and application
- 24. Remote log in information
 - a. Static IP address (Host)
 - b. Incoming and outgoing port settings (Host)
 - c. Username and password (Host)
- 25. Log of sensor performance and modifications
- 26. Log of Contractor data backup as per Section 3.3.7
- 27. Quality Control Plan as per section 3.5
 - a. Name of Quality Control Systems Manager
 - b. Procedures for checking collected data against known values
 - c. Procedures for verifying telemetry is functioning
 - d. Procedures for verifying DQM computer is on
 - e. Procedures for verifying DQMOBS is running

Any changes to the computation methods shall be approved by the National Dredging Quality Management Program Support Center prior to their implementation.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 REQUIREMENTS FOR REPORTED DATA

The Contractor shall provide, operate and maintain all hardware and software to meet these specifications. The Contractor shall be responsible for replacement, repair and calibration of sensors and other necessary data acquisition equipment needed to supply the required data.

Repairs shall be completed within 48 hours of any sensor failure. Upon completion of a repair, replacement, installation, modification or calibration the Contractor shall notify the Contracting Office's Representative. The Contracting Office's Representative may request re-calibration of sensors or other hardware components at any time during the contract as deemed necessary.

The Contractor shall keep a log of sensor repair, replacement, installation, modification and calibration in the dredge's onboard copy of the DPIIP. The log shall contain a three-year history of sensor maintenance to include: the time of sensor failures (and subsequent repairs), the time and results of sensor

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calibrations, the time of sensor replacements, and the time that backup sensor systems are initiated to provide required data. It shall also contain the name of the person responsible for the sensor work.

3.1.1 Date and Time

The date and time shall be reported to the nearest second and referenced to UTC time based on a 24 hour format; mm/dd/yyyy hh:mm:ss

3.1.2 Load Number

A load number shall document the end of a disposal event. Load numbering will begin at number 1 at the start of the contract, and will be incremented by 1 at the completion of each disposal event or emptying of the hopper. Whenever possible, the load number shall be calculated off of the sensors aboard the dredge, and shall be a mathematically repeatable routine. Efforts shall be made to include logic that avoids false load number increments while also not allowing the routine to miss any disposal event. If manual incrementing of the load number is in place, extra attention shall be paid to this value in the contractor's quality control process (section 3.5).

3.1.3 Vessel Horizontal Positioning

Horizontal positioning of the antenna location shall be obtained using a Positioning System operating with a minimum accuracy level of 1 to 3 meters horizontal Circular Error Probable (CEP). Positions shall be reported as Latitude/Longitude WGS 84 in decimal degrees. West Longitude and South Latitude values are reported as negative.

3.1.4 Draghead Horizontal Positioning

Horizontal positioning of the dragheads shall be obtained using a Positioning System operating with a minimum accuracy level of 1 to 3 meters horizontal Circular Error Probable (CEP). Positions shall be reported as Latitude/Longitude WGS 84 in decimal degrees. West Longitude and South Latitude values are reported as negative.

3.1.5 Hull status

Open/closed status of the hopper dredge, corresponding to the split/non-split condition of a split hull hopper dredge shall be monitored. For dredges with hopper doors, the status of a single door that is the first opened during normal disposal operations may be monitored. An "OPEN" value shall indicate the hopper door is open, or in the case of split hull dredges, the hull is split. A "CLOSED" value indicates the hopper doors are closed, or in the case of split hull

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dredges, the hull is not split. For this contract, hull status shall register closed prior to leaving the disposal area.

3.1.6 Dredge Course

Dredge course-over-ground (COG) shall be provided using industry standard equipment. The Contractor shall provide dredge course over ground to the nearest whole degree with values from 000 (true north) to 359 degrees referenced to a clockwise positive direction convention.

3.1.7 Dredge Speed

Dredge speed-over-ground shall be provided in knots using industry standard equipment with a minimum accuracy of 1 knot and resolution to the nearest 0.1 knot.

3.1.8 Dredge Heading

Dredge heading shall be provided using industry standard equipment. The dredge heading shall be accurate to within 5 degrees and reported to the nearest whole degree, with values from 000 (true north) to 359 degrees referenced to a clockwise positive direction convention.

3.1.9 Tide

Tide data shall be obtained using appropriate equipment to give the water level with an accuracy of ± 0.1 feet and a resolution of 0.01 feet. Tide values above project datum described in the dredging specification shall be entered with a positive sign, those below with a negative sign.

3.1.10 Draft

Draft measurements shall be made in feet with an accuracy of ± 0.1 foot, and reported with a resolution to the nearest 0.01 foot relative to the fore and aft draft marks. Industry standard pressure sensors, or an equivalent system, may be used. Two draft sensors, one fore and one aft, are required. At the discretion of the DQM Support Center, a system may use other means of measuring drafts if accuracies and resolution are maintained relative to the draft marks.

3.1.11 Hopper Ullage

Fore and aft hopper ullage values shall be measured to the nearest 0.01 foot with a minimum accuracy of ± 0.1 foot relative to the hopper dredge's zero reference elevation. If only two sensors are used, they shall be mounted in locations as near as possible to the hopper dredge centerline, and away from discharge flume turbulence, foam, and any structure that could produce sidelobe errors. If one

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sensor is offset to port or starboard, the other sensor shall be offset to the opposite side of the hopper dredge. If more than one fore or one aft sensor is used, they shall be placed near the corners of the hopper dredge and the average value of the fore sensors and the average value of the aft sensors shall be reported.

3.1.12 Hopper Volume

Hopper dredge volume shall be reported in cubic yards, based on the most accurate method available for the dredge. The minimum standard of accuracy for hopper dredge volume is interpolation from the certified ullage table, based on the average fore and aft ullage readings.

3.1.13 Displacement

Dredge displacement shall be reported in long tons, based on the most accurate method available for the dredge. The minimum standard of accuracy for displacement is interpolation from the displacement table, based on the average draft. For this contract the density of water used to calculate displacement shall be _____ kg/cubic meter and shall be used for an additional interpolation between the fresh and salt water tables.

3.1.14 Empty Displacement

Empty displacement shall be reported in long tons, and shall be the lightship value of the dredge, or the weight of the dredge with no material in the hopper, adjusted for fuel and water consumption.

3.1.15 Draghead depths

Draghead depths shall be reported with an accuracy of ± 0.5 feet and a resolution to the nearest 0.1 feet as measured from the surface of the water with no tidal adjustments. Minimum accuracies are conditional to relatively calm water.

3.1.16 Slurry Densities of Dragarms

A density metering device, calibrated according to the manufacturer's specifications, shall be used to record the slurry density of each dragarm to the nearest 0.0001 g/cc with an accuracy of ± 0.001 g/cc. If the manufacture does not specify a frequency of re-calibration, calibration shall be conducted prior to commencement of work.

3.1.17 Slurry Velocities of Dragarms

A flow metering device, calibrated according to the manufacturer's specifications, shall be used to record the slurry velocity of each dragarm to the nearest 0.0001 fps with an accuracy of ± 0.001 fps. If the manufacture does not specify a

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frequency of re-calibration, calibration shall be conducted prior to commencement of work. The slurry velocity shall be measured in the same pipeline inside diameter as that used for the slurry density measurement.

3.1.18 Pump RPM

Pump RPM shall be measured with the highest level of accuracy that is standard on the vessel operational displays, either at the bridge, at the drag tenders controls, or in the engine room. Dredges with multiple pumps per side shall report RPM for the pump that best describes the dredging process (typically the outboard pump). If requirements of section 3.1.19 are determined based on pump RPM, then that value shall be reported.

3.1.19 Dragarm Production Criteria

For the purposes of DQM, a dragarm pump can only operate one of three ways and each shall be mutually exclusive of the other two.

3.1.19.1 Minimum Pumping Effort

For Minimum Pumping Effort a "TRUE" value shall mean the hopper dredge pumps are idling (assuring minimum dragarm intake velocity) or off. The logic can be triggered either with Pump revolutions per minute below a certain idle threshold or dragarm slurry velocity at or below the idle speed threshold (depending on the particular dredge plant and project). The only permissible values are "TRUE" and "FALSE". The criteria for minimum pump effort may be unique to each dredge.

3.1.19.2 Pumping Water

For Pumping Water a "TRUE" value shall indicate the dredge is not digging material but is pumping water (or very low-density material) through the dredge pump(s). For example, when the slurry density is less than 1.05 grams per cubic centimeter, the dredge is considered to be pumping water. Other parameters such as pump vacuum may be used to satisfy the pumping water requirement. These criteria may be unique to each dredge. The only permissible values are "TRUE" and "FALSE".

3.1.19.3 Material Recovery

For Material Recovery a "TRUE" value shall indicate the dredge is digging material. The only permissible values are "TRUE" and "FALSE". Example; when the slurry velocity is greater than 10 feet per second and the density is greater than 1.05 grams per cubic centimeter, material recovery is "TRUE". These criteria may be unique to each dredge.

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3.1.20 Pumpout

When the hopper dredge is being pumped out, a "True" value shall be reported; when it is not, a "False" value shall be reported. The only permissible values are "TRUE" and "FALSE".

3.2 NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM SYSTEM
REQUIREMENTS

The Dredge shall be equipped with a DQM computer system consisting of a computer, monitor, keyboard, mouse, printer, data modem, UPS, and network hub. The computer system shall be a stand alone system, exclusive to the DQM monitoring system, and will have USACE DQM software installed on it. If a hardware problem occurs, or if a part of the system is physically damaged, then the Contractor shall be responsible for repairing it within 48 hours of determination of the condition.

3.2.1 Computer Requirements

The Contractor shall provide a dedicated on-board computer for use by the Dredging Quality Management system. This computer shall run the Corps' software and receive data from the Contractor's data reporting interface. This computer must meet or exceed the following performance specifications:

- CPU: Intel or AMD processor with a (non-overclocked) clock speed of at least 3 gigahertz (GHz)
- Hard drive: 250 gigabytes (GB); internal
- RAM: 2 gigabytes
- Ethernet adapter: 10 or 100 megabit (Mbit) internal network card with an RJ-45 connector
- Video adapter: Must support resolution of 1024x768 at 16 bit color depth
- Keyboard: Standard 101-key
- Mouse: Standard 2-button mouse
- Monitor: 17 inch viewable display; must support 1024x768 resolution at 16 bit color depth
- CD-ROM drive: 16X read speed/8X write speed
- Ports: 2 free Serial ports with standard 9-pin connectors; 1 free USB port

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Other hardware: Category 5 (Cat-5) cable with standard RJ-45 plugs connecting the network adapter to the network hub; one spare cable

Contractor shall install a fully-licensed copy of Windows XP Professional on the computer specified above. Contractor shall also install any necessary manufacturer-provided drivers for the installed hardware.

This computer shall be located and oriented to allow data entry and data viewing, as well as to provide access to data ports for connection of external hardware. Location and orientation shall be subject to Contracting Officer's Representative's approval.

3.2.2 Software

The DQM computer's primary function is to transmit data to the DQM shore side database. No other software which conflicts with this function shall be installed on this computer. A copy of Symantec pcAnywhere™ 12.5 (Remote and Host) or newer shall be available on the dredge and installed on the DQM computer (host) and available for installation on the inspection computer (remote). Information required to log-in on the DQM computer (host) shall be included in the DPIP. This shall include the DQM computers (host) static IP address, data port and status port information as well as any associated login name and password. The DQM computer will also have the USACE provided DQMOBS (Dredge Quality Management Onboard Software) installed on it by DQM personnel.

3.2.3 Network Hub

The DQM computer shall communicate via IEEE 802.3 Ethernet and the TCP/IP networking protocol. The Contractor shall provide a network hub to allow the temporary addition of the Contracting Officer's representative's portable computer to the computer network. The hub shall provide a minimum of four RJ-45 ports that support Category 5 (Cat-5) cable with standard RJ-45 plugs connecting the network adapter to the network hub; one spare cable shall be available on site to plug into the network hub.

3.2.4 UPS

The Contractor shall supply an Uninterruptible Power Supply (UPS) for the computer and networking equipment. The UPS shall provide backup power at 1kVA for a minimum of 10 minutes. The UPS shall interface to the DQM computer to communicate UPS status. The Contractor shall ensure that sufficient power outlets are available to run all specified equipment.

3.2.5 Printer

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The Contractor shall supply a printer and driver software (when necessary) for use with the DQM computer. The printer shall support the Universal Serial Bus interface (cable supplied by the Contractor), and shall have a minimum resolution of 300 dots per inch and have a rated print speed of 6 pages per minute (black and white) or higher and support color. Additionally, the printer shall have minimum paper capacity of 50 pages of 8.5X11 inch paper. The Contractor shall be responsible for maintaining a supply of printer paper and other consumables such as printer cartridges. Printer usage will not exceed 500 pages per month.

3.2.6 Internet Access

The Contractor shall provide an internet connection to the DQM computer with connectivity in the area where they are working. The internet shall be always available to the DQM computer with connectivity at least 12 out of 24 hours. The Contractor shall acquire and install all necessary hardware and software to make this Internet connection available to the DQM on-board computer.

3.2.7 Data Routing Requirements

Onboard sensors shall continually monitor dredge conditions, operations and efficiency and route this information into the shipboard dredge-specific system computer (DSS) to assist in guiding dredge operations. Portions of this Contractor-collected information shall be routed to the DQM computer on a real-time basis for archival data storage and compilation into summary reports of dredging operations. Standard sensor data shall be sent to the DQM computer via an RS-232 19200-baud serial interface. The serial interface shall be configured as 8 bits no parity and no flow control.

3.2.8 Data Measurement Frequency

Disposal activities shall be logged with high temporal and spatial resolution. Data shall be logged as a series of events. Each set of measurements (i.e. time, position, etc...) will be considered an event. All required information in section 3.1 shall be collected within one second of the reported time. A data string for an event shall be sent to the DQM computer every 10 seconds or less; but never more frequently than once per every 5 seconds.

3.2.9 Data Format

Data shall be reported as an eXtensible Markup Language (W3C standard XML 1.0) document as indicated below. Line breaks and spaces are added for readability, but the carriage return, line feed character combination is only added to delineate records (HOPPER DREDGE_DREDGING_DATA tag) for actual data transmission.

```
<?xml version="1.0"?>  
<HOPPER DREDGE_DREDGING_DATA version="2.0">
```


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```

<DREDGE_NAME> string32 <DREDGE_NAME>
<HOPPER DREDGE_DATA_RECORD>
  <DATE_TIME> time date string <DATE_TIME>
  <LOAD_NUMBER> integer string <LOAD_NUMBER>
  <VESSEL_X coord_type = "LL"> floating point string <VESSEL_X>
  <VESSEL_Y coord_type = "LL"> floating point string <VESSEL_Y>
  <PORT_DRAG_X coord_type = "LL"> floating point string <PORT_DRAG_X>
  <PORT_DRAG_Y coord_type = "LL"> floating point string <PORT_DRAG_Y>
  <STBD_DRAG_X coord_type = "LL"> floating point string <STBD_DRAG_X>
  <STBD_DRAG_Y coord_type = "LL"> floating point string <STBD_DRAG_Y>
  <HULL_STATUS> OPEN/CLOSED string <HULL_STATUS>
  <VESSEL_COURSE> floating point string <VESSEL_COURSE>
  <VESSEL_SPEED> floating point string <VESSEL_SPEED>
  <VESSEL_HEADING> floating point string <VESSEL_HEADING>
  <TIDE> floating point string <TIDE>
  <DRAFT_FORE> floating point string <DRAFT_FORE>
  <DRAFT_AFT> floating point string <DRAFT_AFT>
  <ULLAGE_FORE> floating point string <ULLAGE_FORE>
  <ULLAGE_AFT> floating point string <ULLAGE_AFT>
  <HOPPER DREDGE_VOLUME> floating point string <HOPPER DREDGE_VOLUME>
  <DISPLACEMENT> floating point string <DISPLACEMENT>
  <EMPTY_DISPLACEMENT> floating point string <EMPTY_DISPLACEMENT>
  <DRAGHEAD_DEPTH_PORT> floating point string <DRAGHEAD_DEPTH_PORT>
  <DRAGHEAD_DEPTH_STBD> floating point string <DRAGHEAD_DEPTH_STBD>
  <PORT_DENSITY> floating point string <PORT_DENSITY>
  <STBD_DENSITY> floating point string <STBD_DENSITY>
  <PORT_VELOCITY> floating point string <PORT_VELOCITY>
  <STBD_VELOCITY> floating point string <STBD_VELOCITY>
  <PUMP_RPM_PORT> floating point string <PUMP_RPM_PORT>
  <PUMP_RPM_STBD> floating point string <PUMP_RPM_STBD>
  <MIN_PUMP_EFFORT_PORT> true/false/unknown string <MIN_PUMP_EFFORT_PORT>
  <MIN_PUMP_EFFORT_STBD> true/false/unknown string <MIN_PUMP_EFFORT_STBD>
  <PUMP_WATER_PORT> true/false/unknown string <PUMP_WATER_PORT>
  <PUMP_WATER_STBD> true/false/unknown string <PUMP_WATER_STBD>
  <PUMP_MATERIAL_PORT> true/false/unknown string <PUMP_MATERIAL_PORT>
  <PUMP_MATERIAL_STBD> true/false/unknown string <PUMP_MATERIAL_STBD>
  <PUMP_OUT_ON> true/false/unknown string <PUMP_OUT_ON>
</HOPPER DREDGE_DATA_RECORD>
</HOPPER DREDGE_DREDGING_DATA>
Carriage return – ASCII value 13
Line Feed – ASCII value 10

```

Example

```

<?xml version="1.0"?>
<HOPPER DREDGE_DREDGING_DATA version = "2.0">
  <DREDGE_NAME>Essayons</DREDGE_NAME>
  <HOPPER DREDGE_DATA_RECORD>
    <DATE_TIME>04/11/2002 13:12:05</DATE_TIME>
    <LOAD_NUMBER>102</LOAD_NUMBER>
    <VESSEL_X coord_type = "LL">-80.123333</VESSEL_X>
    <VESSEL_Y coord_type = "LL">10.123345</VESSEL_Y>
  </HOPPER DREDGE_DATA_RECORD>
</HOPPER DREDGE_DREDGING_DATA>

```


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```
<PORT_DRAG_X coord_type = "LL">-80.1233371</PORT_DRAG_X>
<PORT_DRAG_Y coord_type = "LL">10.12335</PORT_DRAG_Y>
<STBD_DRAG_X coord_type = "LL">-80.123339</STBD_DRAG_X>
<STBD_DRAG_Y coord_type = "LL">10.123347</STBD_DRAG_Y>
<HULL_STATUS>CLOSED</HULL_STATUS>
<VESSEL_COURSE>258</VESSEL_COURSE>
<VESSEL_SPEED>3.4</VESSEL_SPEED>
<VESSEL_HEADING>302</VESSEL_HEADING>
<TIDE>-0.1</TIDE>
<DRAFT_FORE>10.05</DRAFT_FORE>
<DRAFT_AFT>15.13</DRAFT_AFT>
<ULLAGE_FORE>10.11</ULLAGE_FORE>
<ULLAGE_AFT>10.22</ULLAGE_AFT>
<HOPPER DREDGE VOLUME>2555.2</HOPPER DREDGE VOLUME>
<DISPLACEMENT>4444.1</DISPLACEMENT>
<EMPTY_DISPLACEMENT>2345.0</EMPTY_DISPLACEMENT>
<DRAGHEAD_DEPTH_PORT>55.10</DRAGHEAD_DEPTH_PORT>
<DRAGHEAD_DEPTH_STBD>53.21</DRAGHEAD_DEPTH_STBD>
<PORT_DENSITY>1.02</PORT_DENSITY>
<STBD_DENSITY>1.03</STBD_DENSITY>
<PORT_VELOCITY>22.1</PORT_VELOCITY>
<STBD_VELOCITY>23.3</STBD_VELOCITY>
<MIN_PUMP_EFFORT_PORT>false</MIN_PUMP_EFFORT_PORT>
<MIN_PUMP_EFFORT_STBD>false</MIN_PUMP_EFFORT_STBD>
<PUMP_WATER_PORT>true</PUMP_WATER_PORT>
<PUMP_WATER_STBD>true</PUMP_WATER_STBD>
<PUMP_MATERIAL_PORT>false</PUMP_MATERIAL_PORT>
<PUMP_MATERIAL_STBD>false</PUMP_MATERIAL_STBD>
<PUMP_OUT_ON>false</PUMP_OUT_ON>
</HOPPER DREDGE DATA RECORD>
/HOPPER DREDGE DREDGING_DATA>
cr>
if>
DREDGE_NAME>Essayons</DREDGE_NAME>
<HOPPER DREDGE DATA RECORD>
  <DATE_TIME>04/11/2002 13:12:10</DATE_TIME>
  <LOAD_NUMBER>102</LOAD_NUMBER>
  <VESSEL_X coord_type = "LL">-80.123334</VESSEL_X>
  <VESSEL_Y coord_type = "LL">10.123346</VESSEL_Y>
  <PORT_DRAG_X coord_type = "LL">-80.1233372</PORT_DRAG_X>
  <PORT_DRAG_Y coord_type = "LL">10.12336</PORT_DRAG_Y>
  <STBD_DRAG_X coord_type = "LL">-80.123340</STBD_DRAG_X>
  <STBD_DRAG_Y coord_type = "LL">10.123348</STBD_DRAG_Y>
  <HULL_STATUS>CLOSED</HULL_STATUS>
  <VESSEL_COURSE>259</VESSEL_COURSE>
  <VESSEL_SPEED>3.5</VESSEL_SPEED>
```

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```
<VESSEL_HEADING>300</VESSEL_HEADING>
<TIDE>-0.1</TIDE>
<DRAFT_FORE>10.00</DRAFT_FORE>
<DRAFT_AFT>15.15</DRAFT_AFT>
<ULLAGE_FORE>10.15</ULLAGE_FORE>
<ULLAGE_AFT>10.20</ULLAGE_AFT>
<HOPPER DREDGE_VOLUME>2555.5</HOPPER DREDGE_VOLUME>
<DISPLACEMENT>4444.0</DISPLACEMENT>
<EMPTY_DISPLACEMENT>2345.0</EMPTY_DISPLACEMENT>
<DRAGHEAD_DEPTH_PORT>55.15</DRAGHEAD_DEPTH_PORT>
<DRAGHEAD_DEPTH_STBD>53.19</DRAGHEAD_DEPTH_STBD>
<PORT_DENSITY>1.00</PORT_DENSITY>
<STBD_DENSITY>1.01</STBD_DENSITY>
<PORT_VELOCITY>22.5</PORT_VELOCITY>
<STBD_VELOCITY>23.3</STBD_VELOCITY>
<MIN_PUMP_EFFORT_PORT>false</MIN_PUMP_EFFORT_PORT>
<MIN_PUMP_EFFORT_STBD>false</MIN_PUMP_EFFORT_STBD>
<PUMP_WATER_PORT>true</PUMP_WATER_PORT>
<PUMP_WATER_STBD>true</PUMP_WATER_STBD>
<PUMP_MATERIAL_PORT>false</PUMP_MATERIAL_PORT>
<PUMP_MATERIAL_STBD>false</PUMP_MATERIAL_STBD>
<PUMP_OUT_ON>false</PUMP_OUT_ON>
</HOPPER DREDGE_DATA_RECORD>
</HOPPER DREDGE_DREDGING_DATA>
<cr>
</if>
```

3.2.10 Data Reporting

The system shall transmit correctly formatted event data XML strings to the DQM Database continuously from mobilization until the last USACE post-dredging survey has been accepted. If the internet connection (section 3.2.6) is non-operable, either because of hardware failure or poor local operating conditions, manual backups shall be performed for each day the device is inoperable and submitted to the DQM center within 48 hours. Instructions on how to backup DQM data, perform DQM data transfer (Contractor) and the downloadable executable for Send Data can be found at <https://si.usace.army.mil/hopper.aspx>. In the event of data transfer, transmission, or hardware failure, a manually recorded disposal log shall be maintained. It shall consist of a series of events. These events are: start of dredging, end of dredging, pre-disposal and post-disposal events. Each event shall include: time stamp (GMT), position (Latitude and Longitude WGS84), draft, ullage, volume and displacement. Disposal logs shall be submitted on a daily basis to the Contracting Officer's Representative during the time when the system is not operational.

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3.2.11 Contractor Data Backup

The Contractor shall maintain an archive of all data sent to the DQM computer during the dredging contract. The Contracting Officer's Representative may require, at no increase in the contract price, that the Contractor provide a copy of these data covering specified time periods. The data shall be provided in the HTML format which would have been transmitted to the DQM computer. Data submission shall be via storage medium acceptable to the Contracting Officer's Representative.

At the end of the dredging contract, the Contractor shall contact the National DQM Support Center prior to discarding the data to ensure it has been appropriately archived. The Contractor shall record in a separate section at the end of the dredge's on-board copy of the DPIP the following information:

- a. Person who made the call
- b. The date of the call
- c. The DQM representative who gave permission to discard

The same day of the phone call and prior to discarding the data, the Contractor shall submit a "Data Appropriately Archived e-mail" to the local districts Contracting Officer's Representative with the above information, and Cc: the DQM Support Center representative providing permission. In addition to the above information, also include in the e-mail:

- d. Project name and contract number
- e. Dredge start and end dates
- f. Name of hopper dredge

3.3 PERFORMANCE REQUIREMENTS

The Contractor's DQM system shall be fully operational at the start of dredging operations and fully certified prior to moving dredge material on the contract (see Section 1.4, National Dredging Quality Management Program Certification). To meet contract requirements for operability, in addition to certification, the Contractor's system shall provide a minimum 95 percent data return and be compliant with DPIP requirements (Section 1.5). DPIP compliance is determined by DQM support team. Data return percentage is defined as the total number of quality data strings sent by the DSS system to the DQM computer divided by the total possible number of records that could be sent by a system in good working order. Quality data strings are considered to be those providing accurate values for at least 34 of the 35 parameters reported. If repairs necessary to restore 95 percent data return are not made within 48 hours, or if the Contractor fails to report required data within the specified time window for dredge measurements (see Sections 3.2.8 "Data Measurement Frequency" and 3.2.10 "Data

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Reporting"); the system will be declared not fully operational, and the Contractor will be assessed liquidated damages equivalent to the additional oversight hours that would be required for Corps personnel to be on site from the first full day after the system is deemed not operational through to the time when the system is returned to fully operational status. For this contract, the liquidated damages shall be \$ _____ per day. *(A spread sheet of how to calculate this is available at the DQM support center; this is NOT just the DQM day rate)*

3.4 COMPLIANCE INSPECTION AND QUALITY ASSURANCE CHECKS

For inspections and compliance monitoring, the Contracting Officers Representative shall include, but not be limited to, DQM support center personnel. The dredging contractor shall provide the Contracting Officers Representative transportation from the shore to any platform with a DQM certified system. Transportation to the DQM equipment shall be provided in a timely manner.

Quality assurance checks are required prior to the commencement of dredging, and at the discretion of a Contracting Officer's Representative periodically throughout the duration of the contract. Detailed instructions for performing these checks and a spreadsheet for recording the results are available at <http://si.usace.army.mil/downloads.asp>. Incoming data shall be periodically reviewed to assure compliance with performance requirements outlined in section 3.3.

3.4.1 Displacement (Draft) Check

The Contracting Officer's Representative shall periodically verify the accuracy of the fore and aft draft sensors by comparing the vessel hull draft marks to the corresponding sensor readings indicated on the DQM screen. The vessel's hull draft reading shall be viewed from a contractor supplied auxiliary vessel circling the dredge. The Contracting Officer's Representative shall review the difference between averaged drafts recorded by the instruments and those estimated from the draft marks to insure that the system is operating within the acceptable accuracy of approximately ± 0.1 ft. in calm seas conditions, and shall direct the Contractor to re-calibrate or repair system components as necessary. This check may be performed separately or as a part of the Water Load Test.

3.4.2 Draghead Depth Check

The Contracting Officer's Representative may require periodic calibration checks of the reported draghead depth using manual means such as tape measures or sounding lines to directly measure draghead depth. The Contractor shall furnish a steel tape, chain, or wire with clearly visible flags/tags placed at 1 foot increments within the operational range of the dragarm. These devices shall be capable of measuring the depth below the water surface to the lowest fixed point of each

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draghead (often the heel) with sufficient length to measure 5 feet more than the maximum project depth. Pressure sensors may be used to verify calibration of the draghead sensors only in areas where current flow past the vessel/dragarm cannot be reduced sufficiently to allow safe handling of manual measuring devices. Pressure sensors, used for this purpose shall be vented pressure gages and shall be subjected to an annual manufacturer's calibration. Prior to the dragarm depth check, the sensor shall be checked at a known depth, and may be required to be zeroed at this point according to manufacturer's specifications. Care shall be taken not to kink the cable or restrict the vent during deployment.

The Contracting Officer's Representative shall review the draghead depth data to insure that the system is operating within acceptable accuracy, and may direct the Contractor to re-calibrate or repair system components as necessary. If a bubbler type system is used, weekly calibration of the draghead sensors is recommended, as they are sensitive to environmental conditions.

3.4.3 Hopper dredge Ullage Check

The Contracting Officer's Representative shall periodically check the reported hopper dredge ullage using a tape measure or other distance measuring device. The Contractor shall furnish a clearly readable weighted tape, marked in tenths of a foot, capable of measuring throughout the full range of hopper dredge depth. The weight for this tape shall be a 6-inch diameter disk weighing between 2 and 3 pounds. The Contracting Officer's Representative shall review the hopper dredge ullage data to insure that the system is operating within acceptable accuracy (0.1 feet), and may direct the Contractor to re-calibrate or repair system components as necessary. This check may be performed separately or as a part of the Water Load Test.

3.4.4 Position Check

During inspection the reported position of the dredge shall be verified by comparison with readings from a handheld GPS receiver. Throughout the contract, the Contracting Officer's Representative shall periodically take readings from an independent GPS to verify locations.

3.4.5 Water Load Test

Water Tests shall consist of pumping the hopper dredge out to its lowest level and then filling it to capacity with water, taking ullage and draft measurements at both levels to determine hopper dredge volume and displacement. The objective of the water test is to validate the dredge's reported displacement and hopper volumes. If the results of the water test indicate that the system is not operating within acceptable accuracy, the Contractor shall correct the deficiencies causing the error, and repeat the water test until the results are acceptable.

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The Contractor shall provide a handheld refractometer with automatic temperature compensation to measure the hopper dredge water specific gravity during water tests. The refractometer shall be capable of measuring the hopper dredge water specific gravity with a resolution of 0.001 and minimum accuracy of ± 0.001 . The Contractor shall also provide a water-sampling device to retrieve a sufficient volume of water from various depths in the hopper dredge to accurately determine specific gravity with the refractometer, and a sufficient volume of deionized water for calibration of the device.

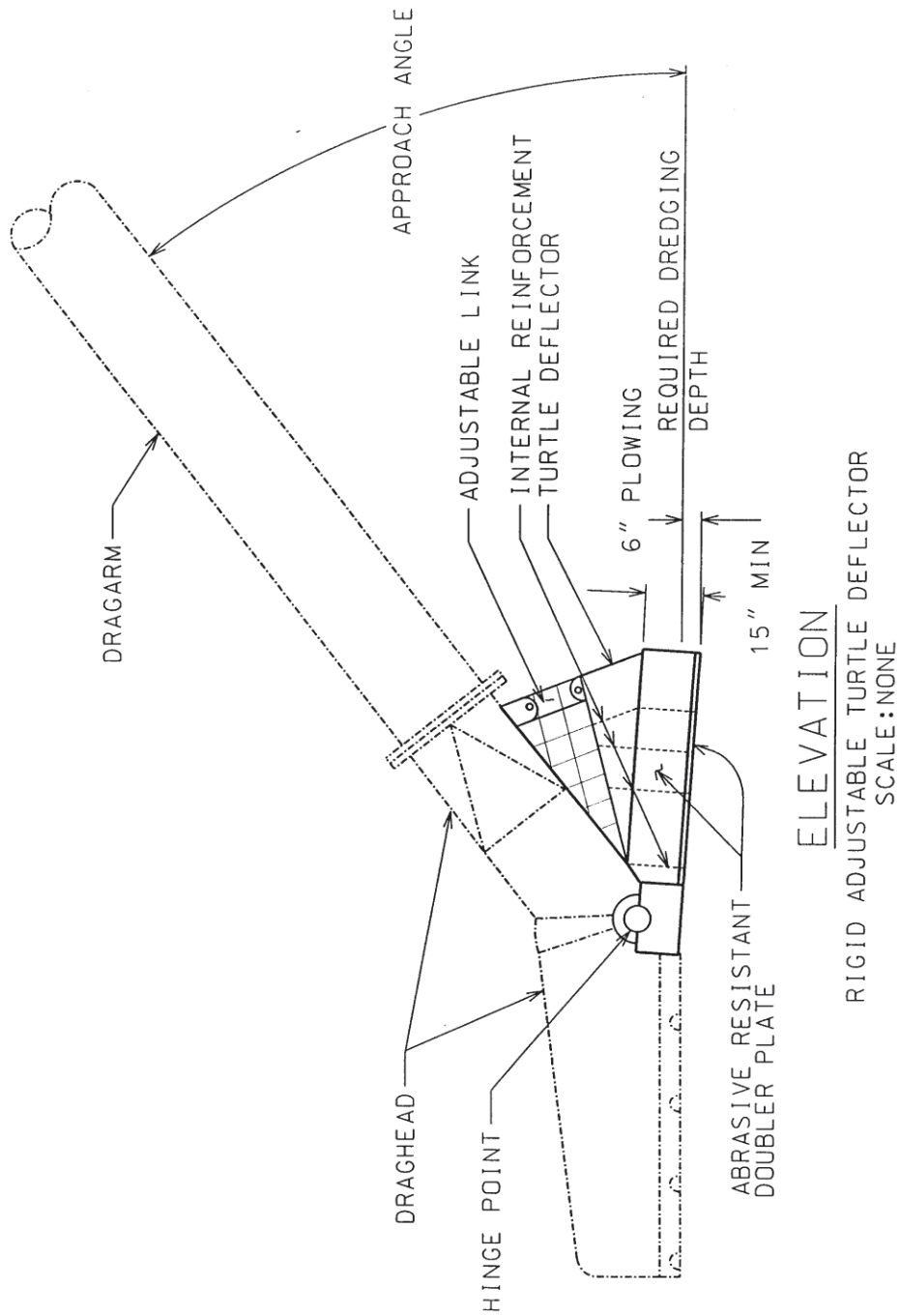
3.5 CONTRACTOR QUALITY CONTROL

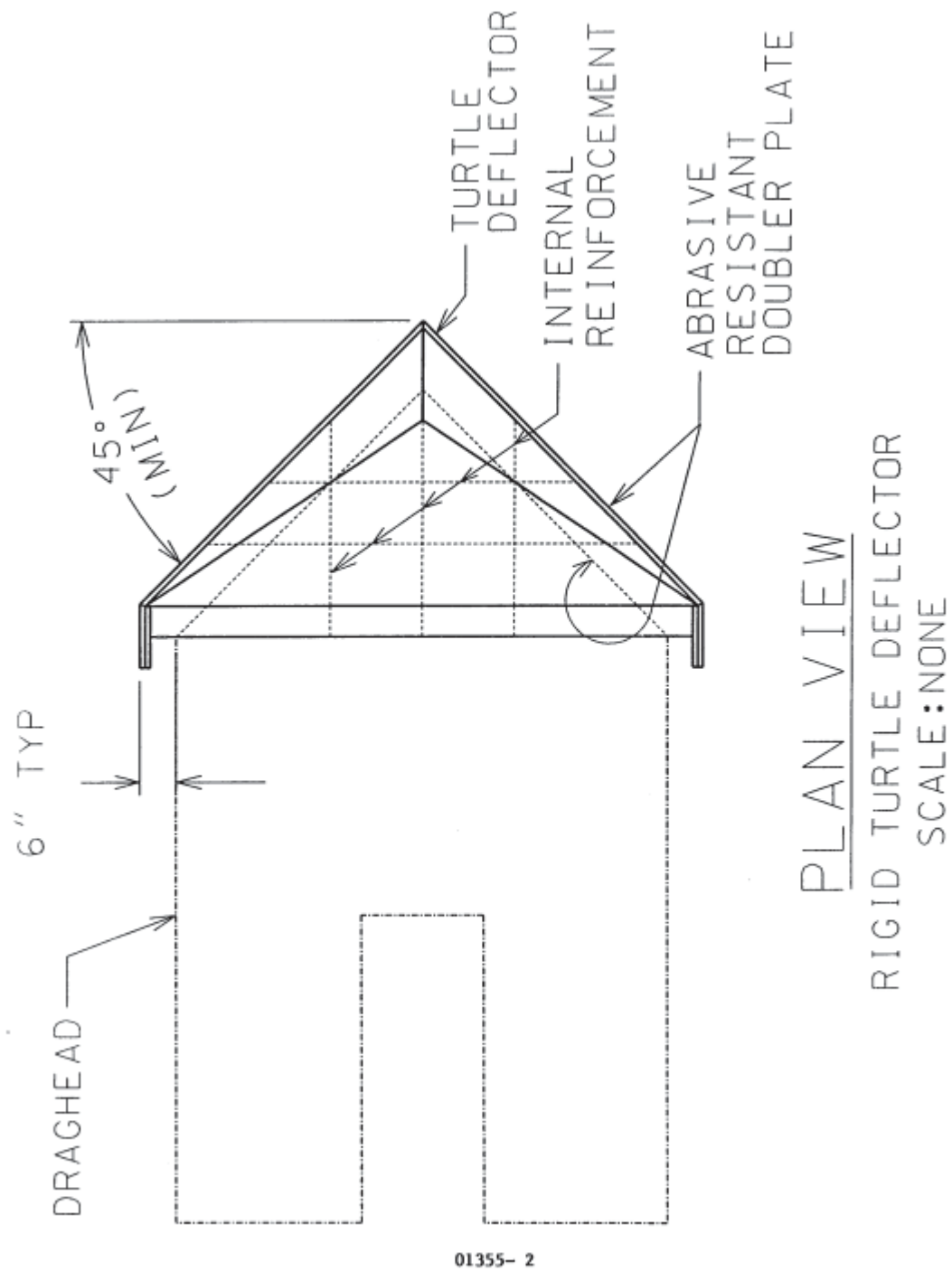
Dredging contractor shall designate a quality control systems manager (QCSM), who shall develop and maintain daily procedures to ensure quality control (QC) of the DQM system. These methods shall include a procedure by which data being collected is checked against known values, telemetry is verified to be functioning, and the DQM computer is verified to be on and the DQMOBS is running. These procedures shall be outlined in the DPIP and submitted prior to the start of the contract. In the event a Contractor Quality Control (CQC) Report is required, daily annotations shall be made in the Daily CQC Report documenting all actions taken on each day of work including all deficiencies found and corrective actions taken.

3.6 LIST OF ITEMS TO BE PROVIDED BY THE CONTRACTOR

DPIP	Sec 1.5 Dredge Plant Instrumentation Plan
DQM SYSTEM	
Sensor Instrumentation	Sec. 3.1 Specifications for Reported Data
DQM Computer	Sec. 3.2 National Dredging Quality Management System Requirements
DREDGE DATA	
Event documentation	Sec. 3.2.10 Data Reporting
Dredge Data Backups	Sec 3.2.11 Contractor Data Backups
QA EQUIPMENT ON DREDGE	
Ullage tape	Sec. 3.4.3 Hopper dredge Ullage Check
Dragarm depth chain	Sec. 3.4.2 Draghead Depth Check
Refractometer –measuring in grams/cubic centimeter with a resolution of 0.001 and a minimum accuracy of ± 0.001 with calibration water	Sec. 3.4.5 Water Load Test
Water sampling device	Sec. 3.4.5 Water Load Test

Sea Turtle Deflector Specification





Turbidity Monitoring Report

TURBIDITY MONITORING REPORT
IRVINGTON SITE OFFICE
CONTRACT NUMBER:

=====

DATE: _____ REPORT NO. # _____

TIME OF DAY SAMPLE TAKEN: _____ hrs

WEATHER CONDITIONS: _____

DIRECTION OF WATER FLOW: _____ TIDAL STAGE: _____

WATER TEMP: _____ ° WIND SPEED _____ (MPH)

WAVE CONDITIONS (CALM, CHOPPY, ROUGH): _____

=====

TURBIDITY MEASUREMENT TAKEN APPROX. _____ FT. FROM DREDGE

TURBIDITY MEASUREMENT TAKEN APPROX. _____ FT. FROM DISCHARGE

DISCHARGE IS APPROX. _____ FT FROM DREDGE WITH AZIMUTH _____ °

DEPTH AT DREDGE: _____ FT. DEPTH AT DISCHARGE: _____ FT.

SURFACE TURBIDITY AT DREDGE: _____ NTU

MID-DEPTH TURBIDITY AT DREDGE: _____ NTU

SURFACE TURBIDITY AT DISCHARGE: _____ NTU D/A #: 11, SECTION 1a

MID-DEPTH TURBIDITY AT DISCHARGE: _____ NTU

=====

BACKGROUND TURBIDITY TAKEN APPROX. _____ FT FROM DREDGE

AZIMUTH FROM DREDGE: _____ °

WATER DEPTH: _____ FT

SURFACE TURBIDITY: _____ NTU MID-DEPTH TURBIDITY: _____ NTU

=====

REMARKS (VISIBLE PLUME, ETC.): Sea too rough for samples _____

INSPECTOR: _____

Standard Manatee Conditions

STANDARD MANATEE CONSTRUCTION CONDITIONS
April 2003

- a. The lessee/grantee shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with manatees. All construction personnel are responsible for observing water-related activities for the presence of manatees.
- b. The lessee/grantee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973.
- c. Siltation barriers shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to, or exit from, essential habitat.
- d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- e. If manatees are seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure their protection. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. Operation of any equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment. Activities will not resume until the manatee(s) has departed the project area of its own volition.
- f. Any collision with and/or injury to a manatee shall be reported immediately to Mr. Paul Necaie at (228) 493-6631 of the U.S. Fish and Wildlife Service in Jackson, Mississippi.
- g. Temporary signs concerning the manatees shall be posted prior to and during all construction/dredging activities. All signs are to be removed by the lessee/grantee upon completion of the project. A sign measuring at least 3 ft. by 4 ft. which reads *Caution: Manatee Area* will be posted in a location prominently visible to water related construction crews. A second sign should be posted if vessels are associated with the construction, and should be placed visible to the vessel operator. The second sign should be at least 8'6" by 11" which reads *Caution: Manatee Habitat. Idle speed is required if operating a vessel #7 the construction area. All equipment must be shutdown if a manatee comes within 50 feet of operation. Any collision with and/or injury to a manatee shall be reported immediately to the U.S. Fish and Wildlife Service in Jackson, Mississippi (228-493-6631).*

PASCAGOULA HARBOR

SECTION 01 57 20.00 10.3

ENVIRONMENTAL PROTECTION 09/08

PART 1 GENERAL

1.1 APPLICABLE REGULATIONS

The Contractor and their subcontractors in the performance of this contract, shall comply with all applicable Federal, State, and local laws and regulations concerning environmental pollution control and abatement, all applicable provisions of the Corps of Engineers Manual, EM 385-1-1, entitled "Safety and Health Requirements", in effect on the date of solicitation, and the specific requirements stated elsewhere in the contract specifications.

1.2 SCOPE

The work covered by this section consists of furnishing all labor, materials and equipment, and performing all work required for the prevention of environmental pollution during the dredging activities for the Pascagoula Harbor (Bayou Casotte/Upper Sound and Bar Channel) project, except for those measures set forth in other Technical Provisions of these specifications. For the purpose of this specification, environmental pollution is defined as: a) the presence of chemical, physical, or biological elements or agents that adversely affect human health or welfare; b) unfavorably alter ecological balances; c) affect other species of designated importance of man; or d) degrade the utility of the environment for aesthetic and recreational purposes.

The control of environmental pollution requires consideration of air, water, and land, and involves noise control, solid waste management, as well as control of other pollutants.

1.3 SUBCONTRACTORS

The Contractor and their subcontractors shall comply with all requirements under the terms and conditions set out in the permits or certifications issued by the U.S Environmental Protection Agency (EPA), U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), Mississippi Department of Marine Resources (MSDMR) and Mississippi Department of Environmental Quality (MSDEQ) and in compliance with the provisions of the Contract and applicable Federal, state, and local environmental laws and regulations.

a. The Contractor shall submit an Environmental Protection Plan, in accordance with provisions as specified in Section 1.5.

b. The Contractor shall record on daily reports any problems in complying with laws, regulations and ordinances, and corrective action taken.

c. The Contractor shall prepare a listing of resources needing protection (i.e., upland vegetation, wetlands, oyster reefs, submerged aquatic vegetation, air quality, noise levels, surface and groundwater quality, fish and wildlife, historical, archeological, and cultural resources) within authorized work areas.

d. The Contractor shall prepare a pollution prevention plan that identifies all potentially hazardous substances on the job site and the intended actions to be taken to prevent the accidental or intentional introduction of such materials into the air, the water or the ground.

e. The Contractor shall set out the procedures to be followed to correct pollution of the environment due to accident, natural causes or failure to follow the procedures identified in the environmental protection plan.

f. The Contractor shall keep dredging and placement activities under surveillance and shall exercise all necessary controls to minimize damage to the environment by noise from equipment and various activities. Areas that have noise levels greater than 85-dB continuously or 140-dB peak (unweighted) impulse must be designated as noise hazardous areas. These work areas must have caution signs displayed at the perimeter of the noise area indicating the presence of hazardous noise levels and requiring the use of hearing protection devices.

g. The Contractor shall detail special provisions taken to meet Federal, state, and local laws and regulations regarding the storage and handling of solid and hazardous waste materials.

1.4 PAYMENT

No separate payment will be made for work covered under this section and all costs in connection therewith will be considered a subsidiary obligation of the Contractor and covered under the contract unit and/or lump sum prices in the Bidding Schedule.

1.5 ENVIRONMENTAL PROTECTION PLAN

Prior to commencement of the work, the Contractor shall, after receipt of Notice of Award of the Contract and at least 7 days prior to the Preconstruction Conference, submit in writing the above Environmental Protection Plan, and shall meet with representative(s) of the Contracting Office to develop mutual understanding relative to compliance with this provision and administration of the environmental protection program.

1.6 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with Federal, State, or local environmental laws or regulations,

permits, and other elements of the Contractor's Environmental Protection plan. The Contractor shall, after receipt of such notice, inform the Contracting Officer of the proposed corrective action and take such action when approved by the Contracting Officer. The Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or equitable adjustments allowed to the Contractor for any such suspensions. This is in addition to any other actions the Contracting Officer may take under the contract, or in accordance with the Federal Acquisition Regulation or Federal Law.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 PROTECTION OF WATER RESOURCES

The Contractor shall not pollute any water bodies including streams, lakes, bays, estuaries, or other marine or fresh waters with fuels, oils, acids, or any other harmful materials. It is the responsibility of the Contractor to investigate and comply with all applicable Federal, state, county, and municipal laws concerning water pollution. The discharge of plastics of any kind within estuarine or marine waters is strictly prohibited. All work under this contract shall also be performed in such a manner that objectionable conditions will not be created in proximity to the project areas.

a. The Contracting Officer Representative will designate the proposed areas for excavation and the location of approved placement areas. No other areas are approved for the placement or excavation of material.

b. The Contractor shall comply with all turbidity and monitoring standards and other conditions set forth in the water quality standards as specified by the Mississippi Department of Marine Resources. The Government will monitor turbidity (NTU's) in the work area throughout the life of the contract to ensure that the Contractor complies with the permit requirements. Turbidity measurements must be taken daily at the dredge and discharge sites and a background location to be determined by the Contractor. The turbidity monitoring report (included in the Environmental Compliance Appendix) shall be filled out and submitted weekly to the Contracting Officer who will then forward to the Mobile District coastal Environment Staff: Ms. Lekesha Reynolds, PD-EC by email Lekesha.w.reynolds@usace.army.mil. The Contractor shall provide the name(s) and credentials of the person(s) responsible for turbidity monitoring in the Environmental Protection Plan. If turbidity at the placement site exceeds 50 NTUs above background levels outside the prescribed mixing zones, as specified in the permit, the contractor shall cease activities until corrective actions have been taken and turbidity levels have returned to within compliance levels. Should work stoppage occur, the Contractor shall immediately notify the Contracting Officer Representative.

c. Special measures shall be taken to prevent chemicals, fuels, oils, and greases at the beach placement site or along the pipeline from entering area waters, at all times.

d. Contractor shall maintain Best Management Practices (BMPs) at all times during operations to minimize turbidity at both the dredge and placement sites.

e. Discharge of any pollutant into the watercourse is strictly prohibited, except as otherwise specified or allowed in other sections of the Technical Specifications.

f. Wastewater shall be processed, filtered, ponded, or otherwise treated prior to their release from project area into waterways.

g. All dredging equipment must have approved marine sanitation devices. Staging areas must have approved onsite wastewater treatment facilities.

3.2 PASCAGOULA OCEAN DREDGED MATERIAL DISPOSAL SITE (ODMDS)

Placement of the dredged sediments within the ODMDS will be conducted in accordance with the conditions specified below in the Section 103 concurrence letter from U.S. Environmental Protection Agency (EPA) and the Site Management and Monitoring Plan (SMMP). Both of these documents are included in the Environmental Compliance Appendix.

a. Pascagoula Maintenance Ocean Disposal Conditions

(1) A bathymetry survey of the ODMDS release zone will be conducted within three months prior to initiation of disposal activities.

(2) A bathymetry survey of the ODMDS release zone will be conducted within thirty days of completion of disposal activities.

(3) All disposal will be initiated at least 330 feet within the boundaries of the Pascagoula ODMDS to comply with 40 CFR 227.28

(4) Dredged material shall be placed so that at no point will depths less than -25 feet mean lower low water (MLLW) occur (i.e., a clearance of 25 feet above the bottom will be maintained).

(5) To maximize ODMDS capacity and promote the desired mounding of material, the disposals shall be in specified disposal zones and place repeatedly at one location. However at no point shall this mounding obstruct navigation.

(6) A minimum 1,500 foot buffer will be maintained between disposal locations and oil & gas rigs.

(7) All dredged material shall be disposed of in previously certified Pascagoula ODMDs, in accordance with the Site Management and Monitoring Plan and the Section 103 Concurrence.

3.3 RECORDING AND PRESERVING HISTORICAL AND ARCHEOLOGICAL FINDS

All items having any apparent historical or archeological interest, which are discovered in the course of any removing of material and placement activities shall be carefully preserved. The Contractor shall leave the archaeological find undisturbed and immediately report the find to the Contracting Officer Representative and the Mobile District Archeological Staff (attn: Mr. Steven Highland, PD-EI 251-694-3867) so the proper authorities may be notified. Existing historical, archeological and cultural resources within the Contractor's work area will be so designated by the Contracting Officer Representative. All activities associated with these resources shall be coordinated through the Mobile District Archeological Staff (attn: Mr. Steven Highland, PD-EI 251-694-3867)

3.4 PROTECTION OF LAND RESOURCES

The environmental resources within the project boundaries and those outside the limits of permanent work under this contract shall be protected during the entire period of this contract. The Contractor shall confine their activities to areas defined by the drawings and specifications. The Contractor shall perform a preconstruction survey, which includes but is not limited to photographs, and provide this to the Contracting Officer Representative prior to dredging and placement activities.

- a. It is intended that the land resources outside the limits of permanent work completed under this contract be preserved in their present condition or be restored to natural conditions, after completion of dredging and placement activities.
- b. The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in an area approved by the Contracting Officer Representative. The Contracting Officer Representative shall approve all temporary movement or relocation of Contractor facilities.
- c. The Contractor shall be required to maintain all work areas within or without the project boundaries free from dust that would cause a hazard or nuisance to others.
- d. The Contractor shall obliterate all signs of temporary support facilities such as haul roads, work areas, structures, foundations of temporary structures, or any other vestiges of activities as directed by the Contracting Officer Representative.

- e. The Contractor shall construct or install all temporary and permanent erosion and sedimentation control features at the placement site and along the pipeline route.
- f. Solid wastes (excluding clearing debris) includes any waste generated by the Contractor which meets the most complete definition of solid waste as described by Federal, state and local laws and regulations. Solid waste shall be placed in containers that are emptied on a regular schedule. All handling and disposal shall be conducted to prevent spillage and contamination.
- g. Hazardous waste shall be stored, removed from the work area and disposed of in accordance with Federal, state and local laws and regulations.
- h. The Contractor shall use drainage ditches, low ground pressure equipment, matting, geogrids, and/or other types of soil reinforcement as necessary to enable vehicle traffic and other activity.

3.5 PROTECTION OF FISH AND WILDLIFE

The Contractor shall at all times perform all work and take such steps required to prevent any significant interference or disturbance (as determined by the Contracting Officer Representative) to fish and wildlife.

- a. The Contractor will not be permitted to alter water flows or otherwise disturb native habitats adjacent to the project area, which, in the opinion of the Contracting Officer Representative or their appointed representative, are critical to fish or wildlife. Fouling or polluting of water will not be permitted.
- b. The Contractor must perform all work within compliance specifications of the Mississippi Coastal Program to the maximum extent practicable.
- c. Threatened and Endangered Species: The Contractor shall take all necessary precautions to ensure that activities conducted during the course of this project do not adversely impact listed threatened and endangered species. The Contractor shall instruct all personnel associated with the project of the potential presence of manatees, sea turtles, and Gulf sturgeon in the area, and the need to avoid collisions with and harming these animals. All construction personnel shall be advised that there are civil and criminal penalties for harming, harassing, or killing manatees, sea turtles, Gulf sturgeon, dolphins or whales; or destroying or adversely modifying critical habitat of these species which are protected under the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973. The Contractor must take special precautions to ensure adequate protection for wildlife resources. If a sea turtle is found stranded in the channel, contact the Sea Turtle Stranding Coordinator Melissa Cook at 228-369-4796.

- (1) The Contractor shall adhere to all Federal, State, and local laws and regulations including the 2003 NMFS Gulf Regional Biological Opinion

(GRBO) and subsequent amendments.

(2) The Contractor shall coordinate all activities associated with these resources with the Coastal Environment Team, Mobile District (attn: Ms. LeKesha Reynolds, PD-EC at 251-690-3260 or Ms. Jenny Jacobson, PD-E at 251-690-2724).

(3) If there are any incidents (live or dead) involving threatened or endangered species, the Contractor shall notify the Contracting Officer, Contracting Officer Representative, and the following individual(s) **within 24 hours**:

- Ms. LeKesha Reynolds 251-690-3260 (251-327-8650 (after-hours) or Ms. Jennifer Jacobson 251-690-2724, U.S. Army Corps of Engineers, PD-EC. The Contracting Officer will direct the contractor as to any required shutdown

The procedures or necessary changes in dredge operation as to reduce the likelihood of additional incidents. The contractor shall suspend dredging immediately if:

- a. Two or more turtle incidents occur within 24 hours
- b. Two turtles incidents, of the same species, occur during dredging
- c. Four turtle incidents, regardless of species, occur during dredging
- d. One gulf sturgeon incident during dredging

(4) If a sea turtle or sturgeon is recovered from the dredge alive, the appropriate parties shall be notified immediately (no more than 24 hours) (see above Incident contacts), the Incident shall be documented on the 'Sea Turtle Incident Form', or 'Sturgeon Incident Form' and the sea turtle or sturgeon shall be brought to the nearest rehabilitation facility as soon as possible.

d. Protection of Manatees: See "Standard Manatee Construction Conditions" in Environmental Compliance Appendix. Contractor to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. If a manatee is closer than 50 feet to moving equipment or the

(1) Manatee Sighting: If a manatee(s) is sighted within 100 yards of the project area, all appropriate precautions shall be implemented by the project area, the equipment shall be shut down and all construction activities shall cease within the waterway to ensure protection of the manatee. Construction activities shall not resume until the manatee has departed the project area. Animals must not be herded away or harassed into leaving. If construction activity shall cease, the Contractor shall notify the Contracting Officer.

(2) Manatee Signs: Prior to commencement of construction, each vessel involved in construction activities shall display at the vessel control station, or in a prominent location visible to all employees operating the vessel, a temporary sign at least 8-1/2" x 11" reading, "CAUTION: MANATEE

HABITAT/IDLE SPEED IS REQUIRED IN CONSTRUCTION AREA." In the absence of a vessel, a temporary 3' x 4' sign reading "CAUTION: MANATEE AREA" shall be posted adjacent to the issued construction permit. A second temporary sign measuring 8-1/2" x 11" reading "CAUTION: MANATEE HABITAT. IDLE SPEED IS REQUIRED IF OPERATING A VESSEL IN THE CONSTRUCTION AREA. ALL EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION. ALL COLLISIONS WITH AND/OR INJURY TO A MANATEE SHALL BE REPORTED IMMEDIATELY TO THE USFWS IN DAPHNE (251-441-5181)" shall be posted at the dredge operator control station and at a location prominently adjacent to the issued construction permit. The Contractor shall remove the signs upon completion of construction.

(3) Manatee Sighting Reports: Any collisions with a manatee, or sighting of any injured or incapacitated manatee, shall be reported immediately to the Contracting Officer or their appointed representative.

(4) Report Submission: The Contractor shall maintain a log detailing sightings, collisions, or injuries to manatees occurring during the contract period. All data in original form shall be forwarded directly to the Mobile District, Planning and Environmental Division, Coastal Environment Team, P.O. Box 2288 Mobile, Alabama 36628-0001, (Attn: Ms. Lekesha Reynolds) and the Area Engineer within 10 days of collection.

e. Protection of Sea Turtles and Gulf Sturgeon - Hopper Dredging Only: the Contractor shall implement the following conditions:

(1) Observers: The contractor shall supply NMFS-approved protected species observers to be aboard the hopper dredges to monitor the hopper dredged material, screening, and dragheads for sea turtles and Gulf sturgeon. Observer coverage shall be 100 percent (24 hr/day). During transit to and from the placement area, the observer shall monitor from the bridge during daylight hours for the presence of endangered species. During dredging operations, while dragheads are submerged, the observer shall continuously monitor the inflow and/or overflow screening for turtles and Gulf sturgeon and/or parts of these species. Upon completion of each load cycle, dragheads should be monitored as the draghead is lifted from the sea surface and is placed on the saddle in order to assure that any sea turtle that may be impinged is not lost or unaccounted for. Observers shall physically inspect dragheads and inflow and overflow screening/boxes for threatened and endangered species takes.

(2) Operations and Dredging Endangered Species System (ODESS) Reporting System: The ODESS system, which consists of a tablet computer with an Internet connection, shall be a standalone system, exclusive to other systems, and shall have USACE ODESS data collection and reporting software, referred to as the ODESS Field collector (FC) tool,

installed by USACE ODESS support personnel. In the event hardware or software problems prevent the storage or transmission of the collected data, paper copies of the latest ODESS forms and information shall be maintained and submitted to ODESS support and the USACE Inspector or Contracting Officer Representative according to the schedule outlined in the contract specifications. Hardware and Software requirements for the system can be found at the end of this section.

Prior to the initiation of the project, Observers shall be familiar with the operation of the ODESS FC tool and proficient in its use so as to be able to prepare and transmit the results of their observations. ODESS system webinar training can be requested by contacting ODESS Support at ODESS@usace.army.mil or 1-877-840-8024.

Depending on the target audience (Observer, dredging Contractor, USACE District personnel, or other Federal agencies), ODESS training could, in addition to the webinar training, consist of demonstrating the steps involved in setting up the FC tool on the dredge, loading Observer-collected data and attachments into the FC tool, submitting these data and attachments to the ODESS database, and/or navigating around the ODESS public website to view and pull down data and/or decision-making information for later analysis.

(3) ODESS Monitoring Reports (preferred): Observers shall record the results of the threatened and endangered species monitoring in the ODESS system by filling in the appropriate electronic forms on the ODESS FC tool and transmitting the data to the ODESS database. If there is an issue with recording data straight to the FC tool due to the logistical nature of how the Observer is collecting this data, paper copies of these forms can be downloaded from the ODESS public website (<http://dqm.usace.army.mil/odess/#!/download>) and later entered into the FC tool when the Observer has the best opportunity.

Prior to the start of dredging, Observers shall verify that the ODESS FC tool is installed and operational on a dredge's dedicated tablet computer and that a viable Internet connection is available. In addition, before a project is initiated, on the ODESS FC tool homepage Observers shall retrieve (or "pull down") project-specific information from the ODESS database and perform a one-time setup of the dredging project by establishing the dredge name and time zone. During the project, the following forms shall be used in the FC tool and submitted to the ODESS database at the indicated reporting frequency:

(a) Load Data Form: Observers shall complete the Load Data Form, including a description of screen contents and sea conditions, based on their observations. This form shall be completed and transmitted to the ODESS database for each load. At the end of

each Observer shift, or when an Internet signal is available (not to exceed 24 hours from the start of the shift), the Observer shall submit all of their Load Data Forms. If this is not possible due to hardware or software problems, the Observer shall revert to email submission of the forms to ODESS@usace.army.mil and Lekesha.W.Reynolds@usace.army.mil.

(b) Sea Turtle Incidental Data Form: If a sea turtle or its remains are identified during a load inspection, after the appropriate parties are notified via telephone, a Sea Turtle Incidental Data Form shall be completed and submitted to the ODESS database as soon as possible (not to exceed 12 hours after the incident). Any applicable documentation (scanned copies of the paper Observer load and incident forms, species photos, etc.) shall be included as electronic attachments (.JPG or .PDF) and submitted using the FC tool.

(c) Sturgeon Incidental Data Form: If a sturgeon or sturgeon parts are identified during a load, after the appropriate parties are notified, a Sturgeon Incidental Data Form shall be completed and submitted to the ODESS database as soon as possible (not to exceed 12 hours after the incident). Any applicable documentation (scanned copies of the paper Observer load and incident forms, species photos, etc.) shall be included as electronic attachments (.JPG or .PDF) and submitted using the FC tool.

(d) Marine Mammal Observation Data Form: If a large whale is observed, both the Dredge Load and the Marine Mammal Observation Data Forms shall be completed and submitted (not to exceed 12 hours after the observation) to ODESS Support at ODESS@usace.army.mil consistent with the endangered species compliance section of the contract specification.

(3) The contractor shall provide a digital camera, with an image resolution capability of 300 dpi, in order to photographically report all incidental sea turtle and Gulf sturgeon takes during dredging operations. Immediately following an incidental take of a sea turtle or Gulf sturgeon, images shall be provided to accompany load data and incidental take forms submitted to the ODESS system. The nature of findings shall be fully described in the incidental take forms including references to photographs.

(4) Screening: Sea turtle observers are required on hopper dredges and shall provide for 100% inflow screening of dredged material; 100% overflow screening is recommended. If conditions prevent 100% inflow screening, inflow screening may be reduced gradually, as further detailed in the following paragraph, but 100% overflow screening is then required.

(5) Screen Size: The hopper's inflow screens shall have 4-inch by 4-

inch screening. If the Contracting Officer Representative, in consultation with observers and the draghead operator, determines that the draghead is clogging and reducing production substantially, the screens may be modified sequentially: mesh size may be increased to 6-inch by 6-inch, then 9-inch by 9-inch, then 12-inch by 12-inch openings. Further clogging may compel removal of the screening altogether, in which case effective 100% overflow screening would be required. The Contactor Officer Representative shall request permission before doing so by contacting Mobile District Coastal Environmental Team (Ms. Lekesha Reynolds 251-690-3260) prior to the reductions in screening. The Contactor shall provide an explanation for such reduction in the dredging report.

(6) Dredging Pumps: Standard operating procedure shall be that dredging pumps are disengaged by the operator when the dragheads are not firmly on the bottom, to prevent impingement or entrainment of sea turtles within the water column.

(7) Sea Turtle Deflector Requirements:

(a) Sea Turtle Deflecting Draghead: A state-of-the-art rigid deflector draghead must be used on all hopper dredges in all Gulf of Mexico channels and sand mining sites at all times of the year and shall be installed while performing hopper dredging operations under this contract. The contractor shall submit drawings showing the proposed sea turtle deflector device and its attachment to the equipment being used. Drawings submitted shall include the approach angle for any and all depths to be dredged during the dredging. A copy of the approved drawings and calculations shall be available on the vessel during the dredging.

(b) Hopper Dredge Equipment: Hopper dredge drag heads shall be equipped with rigid sea turtle deflectors, which are rigidly attached. No dredging shall be performed by the hopper dredge without a turtle deflector device that has been approved by the Contracting Officer Representative.

(c) Deflector Design: The leading v-shaped portion of the deflector shall have an included angle of less than 90 degrees. Internal reinforcement shall be installed in the deflector to prevent structural failure of the device. The leading edge of the deflector shall be

designed to have a plowing effect of at least 6" depth when the drag head is being operated. Appropriate instrumentation or indicator shall be used and kept in proper calibration to insure the critical "approach angle."

If adjustable depth deflectors are installed, they shall be rigidly attached to the drag head using either a hinged aft attachment point or an aft trunnion attachment point in association with an adjustable pin front attachment point or cable front attachment point with a stop set to obtain the 6" plowing effect. This arrangement allows fine-tuning the 6" plowing effect for varying depths. After the deflector is properly adjusted there shall be NO openings between the deflector and the drag head that are more than 4" by 4". IDIQ

(8) Training - Personnel on Hopper Dredges: The USACE may, as necessary, conduct thorough training on measures of dredge operation that will minimize takes of sea turtles and Gulf sturgeon. It shall be the goal of each hopper dredging operation to establish operating procedures that are consistent with those that have been used successfully during hopper dredging in other regions of the coastal United States, and which have proven effective in reducing turtle/dredge interactions.

(9) Monitoring Reports: The results of the monitoring shall be recorded on the appropriate observation forms. Observation forms shall include a daily report sheet and a weekly summary sheet. Observation sheets shall be completed regardless of whether any takes occur. Electronic copies of all data in its original form shall be forwarded to the Mobile District Coastal Environment Team (Attn: Ms. Lekesha Reynolds; fax number 251-690-2727 or e-mail Lekesha.W.Reynolds@usace.army.mil) within 10 days of collection. Copies of forms submitted shall be legible with a minimum of smudges or blackened areas.

f. Sea Turtle and Gulf Sturgeon Trawling and Relocation – Trawling and relocation shall be conducted during Hopper Dredging within the Pascagoula Bar and Upper Sound/Bayou Casotte Channel(s) unless otherwise directed by the Contracting Officer Representative. The Contractor shall implement the following Trawling and Relocation conditions:

(1) Trawling Requirements: Relocation trawling shall be conducted to remove sea turtles and Gulf sturgeon from the dredging area(s) during dredging to help prevent entrainment by the dredge. Sea Turtle and Gulf sturgeon Trawling and Relocation, as specified herein, will be at the option and in the discretion of the Government to aid in preventing sea turtle and Gulf sturgeon incidents during dredging operations with the approved turtle deflector in place. Trawling shall begin at least 12 hours prior to dredging **and then continue for 7 days**. Based on the trawling results, the Government will make a decision on whether or not there is a need to continue trawling. Methods and equipment shall be standardized including data sheets, nets, trawling direction to tide, length of station, length of tow, and number of tows per station. Data on each tow shall be recorded in on Trawling Report form. The trawler shall be equipped with 60-foot nets constructed from 8-inch mesh (stretch) fitted with mud rollers

and flats as specified in the Turtle Trawl Nets Specifications appended to the end of this Section. Paired net tows shall be made for 12 hours per day or night, as directed by the Contracting Officer or their appointed representative. The tows shall be performed in shifts, to be determined by the Contracting Officer or their appointed representative. The trawler shall be available for operation 24 hours a day. If two (2) separate trawlers are required, they shall operate side-by-side, as much as practicable. If multiple dredges are utilized, the trawler(s) shall be used for each dredge actively performing dredging operations. If the dredging operations are coordinated so that only one (1) dredge is actively dredging, trawler(s) shall be required for only that dredge. If dredging operations cease for a period of 12 hours or more, relocation trawling shall be conducted for a minimum of 4 hours prior to resuming dredging operations. The trawler(s) shall be positioned ahead of the hopper dredge and as close to the hopper dredge as safely possible to give maximum coverage ahead of the dredging cut. The dredge and trawler(s) shall work closely together to implement techniques and procedures that will minimize the opportunity for turtles and Gulf sturgeon to enter the dredging path between the trawler(s) and dredge. NOTE: ALL TRAWLING ACTIVITIES, VESSELS AND EQUIPMENT SHALL COMPLY WITH THE CONTRACTOR'S ACCIDENT PREVENTION PLAN AND THE REQUIREMENTS OF EM 385-1-1, U.S. ARMY CORPS OF ENGINEERS SAFETY AND HEALTH REQUIREMENTS MANUAL. Trawling shall be conducted with and against the tidal flow at a speed between 2.5 to 3.5 knots using repetitive 15- to 30-minute (total time) trawls in the work area. Trawl tow-time duration shall not exceed 30 minutes (doors in - doors out) and trawl speeds shall not exceed 3.5 knots. Positions at the beginning and end of each tow shall be determined from the Global Positioning System (GPS) equipment. Tow speed shall be recorded at the approximate midpoint of each tow. Acceptable GPS criteria shall be in accordance with EM 1110-1-1003, paragraph 5.3 and Table 5-1. This EM 1110-1-1003 can be located at the following website:

<http://www.publications.usace.army.mil/USACEPublications/EngineerManuals.aspx> or can be purchased directly from the Government Printing Office by calling (202) 512-1800. The postal address is Superintendent of Documents, P. O. Box 371954, Pittsburgh, Pennsylvania 15250-7954 or on line at <http://bookstore.gpo.gov/>.

(2) Water Quality and Physical Measurements: Water temperature measurements shall be taken at the water surface each day using a laboratory thermometer. Weather conditions shall be recorded from visual observations and instruments on the trawler. Weather conditions, air temperature, wind velocity and direction, sea state-wave height, and precipitation shall be recorded on the Trawling Report form. High and low tides shall be recorded.

(3) Approved Sea Turtle Trawling and Relocation Supervisor: Trawling

shall be conducted under the supervision of a crewmember that possesses the required permits for handling endangered species, experienced in sea turtle capture or is a NMFS-approved observer. A letter of approval from NMFS shall be provided to the Contracting Officer or their appointed representative prior to commencement of trawling.

(4) Repair and Replacement of Damaged Trawl Nets: The Contractor, at the time of mobilization, shall provide trawl nets, which meet the requirements specified in the Turtle Trawl Net Specifications at the end of this section. Trawl nets that are damaged shall be repaired or replaced by the Contractor at no additional expense to the Government. Tools, supplies and materials for repairing nets shall be kept aboard the trawler. In the event of damage to trawl nets, one hour shall be allowed to either repair or replace them. The Contractor shall have at least one set of replacement nets immediately available at all times, to insure that the dredging work is not adversely delayed due to trawler down-time for replacing damaged nets. It is recommended that a second set of replacement nets be available aboard the trawler.

(5) Equipment Breakdown: The contractor shall be placed in a non-pay status when trawling equipment breakdown is such that the trawler does not operate during the day. Pay time shall resume when trawling operations recommence.

(6) Suspension of Dredging and Relocation Trawling: Should there be dangerously high seas that would cause the trawler to leave the dredging area when relocation trawling is required, the dredge may continue to operate, as long as no turtles or Gulf sturgeon are taken and subject to the discretion of the Contracting Officer.

(7) Turtle Excluder Devices: Approval for trawling for sea turtles without Turtle Excluder Devices (TEDs) on hopper dredge dragheads must be obtained from NMFS (contact Eric Hawk at 727-551-5773). Any necessary State or Federal clearances for the capture and relocation of sea turtles shall also be obtained. Approvals shall be submitted to the Contracting Officer or their appointed representative prior to trawling.

(8) Handling During Trawling: Sea turtles and sturgeon captured pursuant to relocation trawling shall be handled in a manner designed to ensure their safety and viability, and shall be released over the side of the vessel, away from the propeller, and only after ensuring that the vessel's propeller is in the neutral, or disengaged, position (i.e., not rotating). Resuscitation guidelines are located in the Environmental Compliance

Appendix.

(9) Captured Turtle and Gulf Sturgeon Holding Conditions: Turtles and

Gulf sturgeon may be held briefly for the collection of important scientific measurements, prior to their release. Captured turtles shall be kept moist, and shaded whenever possible, until they are released, according to the requirements below. Captured Gulf sturgeon shall be held in a suitable well-aerated seawater enclosure until they are released according to the requirements below.

(a) Take and Release Time During Trawling - Turtles: Turtles shall be kept no longer than 12 hours prior to release and shall be released not less than three (3) nautical miles (nmi) from the excavation site. If two or more released turtles are later recaptured, subsequent turtle captures shall be released not less than (5) five nautical miles away. If it can be done safely and without injuries to the turtle, turtles may be transferred onto another vessel for transport to the release area to enable the relocation trawler to keep sweeping the dredge site without interruption. Minor skin abrasions resulting from trawl capture are considered non-injurious. Injured sea turtles shall be immediately transported to the nearest sea turtle rehabilitation facility such as the Institute for Marine Mammal Studies (MMS), 10801 Dolphin Ln, Gulfport, MS 39503, phone 1-888-767-3657, or 1-228-896-9182 and email contactus@imms.org. Also notify the Coastal Environmental Team, Mobile District, Ms. Lekesha Reynolds by phone at 251-690-3260 office or by email at Lekesha.w.reynolds@usace.army.mil. Observer(s), or their appointed representative(s), shall transport injured turtles to a rehabilitation facility as soon as possible. The NOAA Fisheries-approved turtle transporters shall be used for this purpose.

FLORIDA (partial list)

Gulf World 15412
Front Beach Rd
Panama City Beach, FL 32413
Tel. 850-234-5271

Florida's Gulfarium
1010 Miracle Strip Parkway SE
Ft. Walton Beach, FL 32548
Tel. 850-243-9046

Emerald Coast Wildlife Rescue
406 Mountain Dr
Destin, FL 32541
Tel. 850-/650-1880

(b) Take and Release Time During Trawling - Gulf Sturgeon: Gulf sturgeon shall be released immediately after capture, away from the dredge site, unless the trawl vessel is equipped with a suitable well-aerated seawater holding tank, container, trough or pool where a maximum of one sturgeon may be held for not longer than 30 minutes before it must be released or relocated away from the dredge site.

(10) Scientific Measurements: When safely possible, all turtles shall be measured (standard carapace measurements including body depth), tagged, weighed, and a tissue sample taken prior to release. When safely possible, all Gulf sturgeon shall be measured (fork length and total length), tagged, weighed, and a tissue sample taken prior to release. Any external tags shall be noted and data recorded onto the Tagging form. Only NMFS approved protected species Observers or Observer candidates in training under the direct supervision of a NMFS-approved observer shall conduct the tagging/measuring/weighing/tissue sampling operations.

(11) Turtle Flipper External Tagging: All sea turtles captured by relocation trawling shall be flipper-tagged prior to release with external tags which shall be obtained prior to the start of dredging from the University of Florida's Archie Carr Center for Sea Turtle Research. The

NMFS-approved protected species observer aboard these relocation trawlers shall flipper-tag with external tags (e.g., Inconel tags) captured sea turtles. Columbus crabs or other organisms living on external sea turtle surfaces may also be sampled and removed.

(12) PIT Tagging: PIT tagging of sea turtles and Gulf sturgeon is not required if the NMFS-approved protected species observer does not have prior training or experience in said activity. However, if the observer has received prior training in PIT tagging procedures, then the observer shall PIT tag the animal prior to release (in addition to the standard external tagging):

(a) Sea turtle PIT tagging must then be performed in accordance with the protocol detailed at NMFS' Southeast Fisheries Science Center's web page:
<http://www.sefsc.noaa.gov/species/turtles/observers.htm>.

(b) Gulf sturgeon PIT tagging must then be performed in accordance with the protocol detailed at the NMFS SERO PRD Web site.

(c) PIT tags used must be sterile, individually wrapped tags to prevent disease transmission. PIT tags should be 125 kHz, glass-encapsulated tags-the smallest ones made.

(13) Other Sampling Procedures: All other tagging and external or internal sampling procedures (e.g., bloodletting, laparoscopies, anal and gastric lavages, mounting satellite or radio transmitters, etc.) performed on live sea turtles or live sturgeon are not permitted unless the observer holds a valid sea turtle or sturgeon research permit authorizing this activity, either as the permit holder, or as designated agent of the permit holder.

(14) Trawler Reporting: At the end of each day, a summary detailing the day's relocation trawling (number of tows, details about turtles/sturgeons relocated, etc) shall be emailed by the contractor to Ms. Lekesha Reynolds at Lekesha.W.Reynolds@usace.army.mil and Ms. Caree Kovacevich at Caree.A.Kovacevich@usace.army.mil. Sample forms are provided in Appendix B. Following completion of the project, an electronic copy of the trawling reports shall be forwarded to Ms. Lekesha Reynolds at: Lekesha.W.Reynolds@usace.army.mil within 10 working days of dredging completion. Copies of the reports shall also be furnished to Ms. Rachel Sweeney, National Marine Fisheries Service, by email at rachel.sweeney@noaa.gov.

g. Collateral or "Piggy Back" Research - Hopper Dredging/Trawling Relocation Only: Any sea turtle research activities proposed by the contractor, or outside parties, to be conducted in association with USACE funded actions, including endangered species monitoring, relocation trawling operations, or use of turtles acquired by these operations shall comply with the following general requirements, and any specific requirements developed by the Corps on a case-by-case basis as requests are received:

(1) The USACE shall be given at least 60 days to review and comment on any such research proposals. The point of contact for this review is Dena Dickerson at the Engineer Research and Development Center (ERDC) in Vicksburg MS.

(2) No such research shall be conducted without the express consent of USACE.

(3) The USACE shall be given the opportunity to review and comment on any potential publication or interpretation of resulting data prior to release. The point of contact for this review is Dena Dickerson at the ERDC.

(4) The party or parties conducting the research shall possess a valid research permit pursuant to Section 10 of the Endangered Species Act; and will be responsible for any other Federal, State or local permits or authorizations required, including any requirement of the National Environmental Policy Act (NEPA).

(5) Any injuries, including lethal takes resulting from sea turtle handling activity beyond USACE contract requirements shall be the responsibility of the researcher.

(6) Acknowledgment that the research was conducted with the assistance of USACE shall be included in any resulting publication or report, at the discretion of USACE.

(7) Research activities shall not hinder USACE contracted operations, nor result in any additional cost to the Government;

(8) Research personnel not directly employed by USACE contractors or subcontractors shall not board contracted vessels without signing an appropriate waiver of liability and/or other documents required by USACE.

h. PIT-Tag Scanning - Hopper Dredging/Trawling Relocation Only: All sea turtles and Gulf sturgeon captured by relocation trawling or hopper dredges shall be thoroughly scanned for the presence of PIT tags prior to release using a multi-frequency scanner powerful enough to read multiple frequencies (including 125 128, 134 and 400-kHz tags) and read tags deeply embedded deep in muscle tissue (e.g., manufactured by Trovan, Biomark, or Avid). Turtles whose scans show they have been previously PIT tagged shall be externally flipper tagged. The data collected (PIT tag scan data and external tagging data) shall be submitted to NOAA, NMFS, Southeast Fisheries Science Center, Attn: Lisa Belskis, 75 Virginia Beach Drive, Miami, Florida 33149. All data collected shall be submitted in electronic format within 60 working days to Lisa.Belskis@noaa.gov; and Sheryan.Epperly@noaa.gov. Sea turtle external flipper tag and PIT tag data generated and collected by relocation trawlers shall also be submitted to the Cooperative Marine Turtle Tagging Program (CMTTP), on the appropriate CMTTP form, at the University of Florida's Archie Carr Center for Sea Turtle Research.

Gulf sturgeon data (PIT tag scan data and external tagging data) shall be submitted within 60 days of project completion to NOAA, National Marine Fisheries Service, Protected Resources Division, 263 13th Avenue South, St. Petersburg, Florida 33701, or by fax: (727)824-5309; or by e-mail: takereport.nmfs@noaa.gov, Attn: Dr. Stephania Bolden.

i. Handling Fibropapillomatose Turtles: NMFS-approved protected species observers onboard a relocation trawler or hopper dredges are not required to handle or sample the viral fibropapillomatose tumors if they believe there is a health hazard to themselves and choose not to. When handling sea turtles infected with fibropapilloma tumors shall either: 1) clean all equipment that comes in contact with the turtle (tagging equipment, tape measures, etc.) with mild bleach solution, between the processing of each turtle or 2) maintain a separate set of sampling equipment for handling animals displaying fibropapilloma tumors or lesions.

j. Requirement and Authority to Conduct Tissue sampling for Genetic Analyses - Hopper Dredging/Trawling Relocation Only: All alive or dead sea turtles and Gulf sturgeon captured by relocation trawling or dredging shall be tissue-sampled prior to release by a NMFS-approved protected species observer.

(1) Sea turtle tissue samples shall be taken in accordance with NMFS' Southeast Fisheries Science Centers' (SEFSC) procedures for sea turtle genetic analyses (included in the Environmental Compliance Appendix). Tissue samples shall be properly stored and mailed within 60 days of completion of dredging project, to NOAA, National Marine Fisheries Service, Southeast Fisheries Science Center, Attn: Lisa Belskis, 75 Virginia Beach Drive, Miami, Florida 33149.

(2) Gulf sturgeon tissue samples (i.e., fin clips or barbel clips) shall be taken in accordance with NMFS SERO's Protected Resources Division's Gulf sturgeon Tissue Sampling Protocol found at NMFS SERO PRD Website. Tissue samples shall be properly stored and mailed to SERO PRD (Attn: Dr. Stephania Bolden) within 60 days of dredging completion.

k. Equipment Lighting: During the sea turtle nesting season and emergence season May 1 to October 31, lighting on offshore or onshore equipment shall be minimized through reduction, shielding, lowering, and appropriate placement to avoid excessive illumination of the water's surface and nesting beach while meeting all Coast Guard, COE EM 385-1-1, and OSHA requirements. Light intensity of lighting plants should be reduced to the minimum standard required by U.S. Coast Guard and/or OSHA for General Construction areas, in order not to misdirect sea turtles. Shields should be affixed to the light housing and be large enough to block light from all lamps from being transmitted outside the construction area.

3.6 PROTECTION OF AIR RESOURCES

All fuel burning equipment shall be properly maintained to prevent violations of State or Federal Air Pollution Standards or interference with inhabitants of the area by causing drastic changes in their accustomed environment. If burning is required, the Contractor should obtain a burning permit from the local fire department, if necessary. Daily inspections will be made of all fuel burning equipment. Immediate corrective action shall be taken if exhaust emissions are found to be excessive.

3.7 MAINTENANCE OF POLLUTION CONTROL FACILITIES DURING DREDGING AND PLACEMENT ACTIVITIES

During the life of this contract, the Contractor shall maintain all facilities constructed for pollution control as long as the operations creating the particular pollutant are being carried out or until the material concerned has become stabilized to the extent that pollution is no longer being created. During the dredging period the Contractor should conduct frequent training courses for his maintenance personnel. The curricula should include methods of detection of pollution, familiarity with pollution standards and measures for prevention or mitigation of environmental pollution.

3.8 SANITATION

The Contractor must provide suitable sanitation devices for the proper storage of all sanitary sewage. The Contractor shall ensure that all floating plant operates according to an approved waste management plan as required by 33 CFR Part 151. The dumping of sanitary sewage effluent and/or solids into the waters surrounding the job is strictly prohibited.

ENVIRONMENTAL COMPLIANCE APPENDIX

Turtle Trawl Net Specifications

Turtle Trawl Net Specifications

DESIGN: 4 Seam, 4 Legged, 2 Bridal Trawl Net

WEBBING: 4 inch bar, 8 inch stretch

Top - 36 Gauge Twisted Nylon Dipped

Side - 36 Gauge Twisted Nylon Dipped

Bottom - 84 Gauge Braided Nylon Dipped

NET LENGTH: 60 ft from cork line to cod end

BODY TAPER: 2 to 1

WING END HEIGHT: 6 feet

CENTER HEIGHT: Dependent on depth of trawl - 14 to 18 feet

COD END: Length 50 meshes x 4 inches equals 16.7 feet

Webbing 2 inch bar, 4 inch stretch, 84 gauge braid nylon

Dipped, 80 meshes around, 40 rigged meshes with $\frac{1}{4}$ x 2
inch choker rings, 1 each $\frac{1}{2}$ x 4 inch at end

Cod End Cover - none

Chaffing Gear - none

HEAD ROPE: 60 ft $\frac{1}{2}$ inch combination rope (braid nylon with
stainless cable center)

FOOT ROPE: 65 ft $\frac{1}{2}$ inch combination rope

LEG LINE: Top - 6 ft, Bottom - 6 ft

FLOATS: Size - Tuna Floats (football style), Diameter - 7

Inches; Length - 9 inches; number 12 each;

Spacing - center of top net 2 inches apart

MUD ROLLERS: Size - 5 inch Diameter, 5.5 inch length

Number - 22 each; spacing - 3 ft attached with $\frac{3}{8}$ inch
Polypropylene rope (replaced with snap on roller when
broken)

TICKLER CHAINS: NONE (Discontinued - but previously used $\frac{1}{4}$
inch x 74 ft galvanized chain)

WEIGHT: 20 ft of $\frac{1}{4}$ inch galvanized chain on each wing, 40 ft
per net looped and tied

DOOR SIZE: 7 ft x 40 inches (or 8 ft x 40 inches); Shoe - 1 inch
X 6 inch: bridles - $\frac{3}{8}$ inch high test chain

CABLE LENGTH: (Bridle Length, Total) : $\frac{7}{16}$ inch x 240-300 ft
varies with bottom conditions

FLOAT BALL: NONE

LAZY LINES: 1 inch nylon

PICKUP LINES: $\frac{3}{8}$ inch polypropylene

WHIP LINES: 1 inch nylon

ODESS System Requirements and Forms

HARDWARE REQUIREMENTS FOR THE ODESS SYSTEM

The dredge shall be equipped and the contractor is responsible for an ODESS hardware system consisting of a tablet computer, wireless keyboard, wireless mouse and data modem (or equivalent onboard internet connection) along with a proper tote bag and setup location for the afore mentioned hardware components. If a hardware problem occurs, or if a part of the system is physically damaged, the Contractor shall be responsible for repairing it within 48 hours of determination of the condition. The contractor shall also keep ODESS personnel updated on the status of the onboard ODESS system and the progress of any repairs.

Computer

The Contractor shall provide a dedicated onboard tablet computer for use by the observers and shall have ODESS software installed on it prior to project initiation. This computer shall be located and oriented to allow data entry and data viewing. It must meet or exceed the following specifications:

Tablet Hardware Component	Specification
CPU	Intel or AMD processor with a (non-overclocked) clock speed of at least 2.4 gigahertz (GHz)
Hard Disk	128 gigabytes (GB); solid state internal storage
RAM	4 gigabytes (GB)
Network Adapter	Internal wired or wireless network hardware to match internet connection
Video Adapter	Support for 1024x768 resolution at 16-bit color depth
Display	>= 10.8 in.
Integrated Camera	2MP HD webcam (front); 8MP (back)
Ports	1 free USB port

Internet Access

The Contractor shall maintain an Internet connection capable of transmitting data to the ODESS database. The telemetry system shall always be available and have connectivity in the contract area. If connectivity is lost, unsent data shall be stored locally within the FC tool and transmitted upon restoration of connectivity. The Contractor shall acquire and install all necessary hardware and software to make the Internet connection available for data transmission to the ODESS database. The hardware and software must be configured to allow remote access to the computer by USACE ODESS personnel. Coordination between the dredging company's IT and ODESS Support may be required in order to configure remote access through any security, firewall, router, and telemetry systems. Telemetry systems must be capable of meeting these minimum

SOFTWARE REQUIREMENTS

ODESS personnel shall be responsible for installing and testing all ODESS software tools on the dedicated onboard ODESS tablet computer. No other software which conflicts with the ODESS function of recording and transmitting data shall be installed on the tablet computer. The Contractor shall be responsible for installing and/or maintaining any necessary manufacturer-provided software for the installed hardware. If any software problem occurs, the Contractor shall contact ODESS Support at ODESS@usace.army.mil or 1-877-840-8024.

The ODESS tablet computer shall have the following minimum software installed in support of the ODESS system:

Software	Specification
Operating System	Windows 10, Contractor-installed
Browser**	Chrome, Internet Explorer, Contractor-installed
ODESS Software	Field Collector (FC) tool, USACE ODESS Support Installed
Remote Access Software	Team Viewer, USACE ODESS Support-installed

**Latest version recommended, Chrome is preferred



Operations and Dredging Endangered Species System (ODESS) USACE Sea Turtle Deflector Checklist for Hopper Dredges for USACE and USACE/Army-Permitted Projects

1. Read the contract plans and specs and/or all applicable permits (Dept. of the Army Permit, State Permits) to determine the contract or permit requirements for the protection of endangered sea turtles. (Each District spec or permit may be different.)
2. Read the Biological Opinion and any USACE Protocol, if available.
3. Develop a list of inspection requirements:
 - a. Deflector leading edge angle (90° or less).
 - b. Approach angle or leading edge plowing depth (6" or more).
 - c. Aft rigid attachment of the deflector to the draghead (hinged or trunnion).
 - d. Forward deflector attachment point (adjustable pinned or cable/chain with stop).
 - e. Opening between draghead and deflector (4" x 4" max).
 - f. Dredged material screening requirement (yes/no).
 - g. Screen type requirement (inflow, overflow, or both).
 - h. Inflow basket screen openings (4" x 4" max) and dredged material screening (100%).
 - i. Lighting of the inflow and overflow screens and proper access for cleaning (must meet EM 385-1-1).
 - j. UXO (Unexploded Ordnance) screening in use (yes/no).
 - k. Structural design of the deflector (per the approved deflector submittal).
 - l. Dredge operational requirements (starting/stopping the dredge pump, draghead plugging, raising the draghead, turning the dredge).



- m. Dredging Quality Management (DQM) dredging data recording requirement. Is dredging data recording (drag elevation, slurry density, and velocity) required by specs or permit? If so, is it being collected, is DQM turned on, and is data being submitted?
 - n. Turtle trawling requirement. Is turtle trawling required by specs or permit? If so, is it being performed?
 - o. Turtle observer requirements (12 or 24 hours).
 - p. A copy of the approved turtle deflector submittal is on board the vessel.
 - q. Copies of the contract plans and specs or the Dept. of the Army permit are on board the vessel.
4. Review the turtle deflector submittal. (Do not allow dredging to start until the submittal is approved.)
- a. Structural soundness.
 - b. Deflector leading edge angle (90° or less).
 - c. Approach angles submitted for the project's dredging depths.
 - d. 4" x 4" opening between the deflector and the draghead.
 - e. Aft rigid deflector attachment to draghead (hinged or trunnion).
 - f. Forward deflector attachment point (adjustable pinned or cable/chain with stop).
5. Ensure that the Contractor Quality Control (CQC) performs a pre-dredging inspection. The CQC is required to review and inspect all items in section 3.
6. Ensure that the CQC performs a startup-dredging inspection:
- a. The CQC is required to check the turtle deflector to see if the deflector is installed and adjusted for the required dredge depth of the project in accordance with the approved deflector submittal.
 - b. The CQC is required to ensure that the drag tenders are operating the dredge pump and draghead in accordance with the specs/permit.
 - c. The CQC should perform a paint test to ensure that the deflector is plowing at least 6" into the dredge material while the dragtender is consistently maintaining the submitted and approved approach angle to a tolerance of +0 to -4°.
 - d. The CQC should note the inspection results in the Quality Control (QC) Daily Report.
7. Quality Assurance (QA) should perform a dredging operation inspection soon after the dredge starts dredging:
- a. Review and inspect all items in section 3.

- b. Inspect the turtle deflector to ensure that the deflector is installed and adjusted for the required dredge depth of the project in accordance with the approved deflector submittal.
- c. Require the contractor to perform a paint test to ensure that the deflector is plowing at least 6" into the dredge material while the dragtender is consistently maintaining the submitted and approved approach angle to a tolerance of +0 to -4°. (While over-penetration of the deflector may reduce production and increase fuel consumption of the dredge, it is allowed.)
- d. Ride the dredge through at least one dredging cycle (from dredging to the dump and then back to the dredge site).
- e. Watch the dragtender to ensure that he/she is operating the dredging equipment in accordance with the plans and specs:
 - i. Starting the dredge pump only when the draghead is firmly on the bottom by watching the slurry specific gravity and swell compensator.
 - ii. Reducing the slurry velocity to the dredge pump idle speed velocity before raising the draghead off the bottom.
 - iii. Consistently maintaining the approach angle to a tolerance of +0 to -4° whenever the draghead is on the bottom and the dredge pump is operating
 - iv. Raising the draghead off the bottom due to draghead plugging or ship crabbing.
- f. Ensure that the lockout tagout procedure for cleaning the inflow and overflow screens meets EM 385-1-1.
- g. Talk to the turtle observers to ensure that they are aware of contract and permit requirements and that they are inspecting the screens and deflectors and reporting any required maintenance to the dredge personnel. Also ensure that correct turtle observer forms are being used and filled out properly.
- h. Talk to the dredge Captain about maintaining the screens and deflectors.
- i. Ensure that DQM data is being sent to the National Dredging Quality Management Program.
- j. Note all pre-dredge/post-dredge and followup inspections in the QA and the QC Daily Reports.

Project Name: _____

Project Location: _____

Contract No.: _____

Dept. of the Army Permit No.: _____

Dredging Company Name: _____

Dredge Name: _____

Contractor CQC Inspector's Name: _____

USACE Inspector Name: _____

Office Symbol: _____ Date of Inspection: _____

Comments: _____



Operations & Dredging Endangered Species System (ODESS) Dredge Load



US Army Corps
of Engineers®

District	Project	Contract	Dredge	Dredging Company
Load Number (Required)/Date	Start Date (Required)	Start Time (24 hours) (Required)	Stop Date (Required)	Stop Time (24 hours) (Required)
<div> <div> Port Screen Condition <input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Bad </div> <div> Starboard Screen Condition <input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Bad </div> <div> Overflow Screen Condition <input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Bad </div> <div> Inflow Screen Percent <input type="checkbox"/> 25% <input type="checkbox"/> 50% <input type="checkbox"/> 75% <input type="checkbox"/> 100% </div> <div> Overflow Screen Percent <input type="checkbox"/> 25% <input type="checkbox"/> 50% <input type="checkbox"/> 75% <input type="checkbox"/> 100% </div> <div> Other Screen Percent <input type="checkbox"/> 25% <input type="checkbox"/> 50% <input type="checkbox"/> 75% <input type="checkbox"/> 100% </div> <div> # Dragheads Used <input type="text"/> </div> <div> Draghead Length (ft) <input type="text"/> </div> </div> <div> Draghead Width (ft) <input type="text"/> </div> <div> Draghead Type <input type="checkbox"/> California Style <input type="checkbox"/> IHC <input type="checkbox"/> IHC + Water Injection <input type="checkbox"/> Wild Dragon <input type="checkbox"/> Other (Specify) <input type="text"/> </div> <div> Deflector Condition <input type="checkbox"/> Good <input type="checkbox"/> Fair <input type="checkbox"/> Poor <input type="checkbox"/> None </div> <div> UDC Screening in Use? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> <div> Material Type <input type="checkbox"/> Clay <input type="checkbox"/> Consolidated Material <input type="checkbox"/> Mud <input type="checkbox"/> Other <input type="checkbox"/> Rock <input type="checkbox"/> Sand - Course <input type="checkbox"/> Sand - Fine <input type="checkbox"/> Sand - Medium <input type="checkbox"/> Sand - Mixed <input type="checkbox"/> Shell <input type="checkbox"/> Silt <input type="checkbox"/> Unknown </div>				

Weather Conditions
☐ Sunny
☐ Cloudy
☐ Partly Cloudy

Beaufort Sea Scale
☐ 0 (0-1 kn, 0-0 ft)
☐ 1 (1-3 kn, 0-1 ft)
☐ 2 (4-6 kn, 1-2 ft)
☐ 3 (6-10 kn, 2-3.5 ft)
☐ 4 (10-16 kn, 3.5-6 ft)
☐ 5 (16-21 kn, 6-9 ft)
☐ 6 (21-27 kn, 9-13 ft)
☐ 7 (27-33 kn, 13-19 ft)
☐ 8 (33-40 kn, 19-25 ft)
☐ 9 (40-47 kn, 25-32 ft)
☐ 10 (47-55 kn, 32-41 ft)
☐ 11 (55-63 kn, 41-52 ft)
☐ 12 (>63 kn, >52 ft)

Wave Height (ft)

Wind Speed (K)

Wind Direction (°)

Tide
☐ High
☐ Low
☐ Slack
☐ Rising
☐ Falling
☐ Unknown

Air Temp (°C)

Surface Water Temp (°C)

Mid-Depth Water Temp (°C)

Bottom Water Temp (°C)

Trawling Being Conducted?
☐ Yes
☐ No

Any Incidents Involving Endangered or Protected Species?
☐ Yes
☐ No

If Yes, Which Species?
 (Complete a Turtle or Sturgeon Incident form)
☐ Marine Mammal
☐ Sea Turtle
☐ Sturgeon
☐ Other
☐ Unknown

Whale Sighting Notification Received?
☐ Yes
☐ No

Alert Sent to District?
☐ Yes
☐ No

Screen Contents
 1 Port Screen
 Contents (incl. # of each item)

 2 Starboard Screen
 Contents (incl. # of each item)

 3 Overflow Screens
 Contents (incl. # of each item)

 4 Other Screen or Location (Specify)

 Contents (incl. # of each item)

 5 Port Draghead
 Contents (incl. # of each item)

 6 Starboard Draghead
 Contents (incl. # of each item)

Comments

Observers Used/24 Hours

% Monitoring/Project
☐ None ☐ 75%
☐ 25% ☐ 100%
☐ 50%

Observer(s) Name(s) (Req. Print)

Observer(s) Signature(s)

Observer(s) Company

Notes:

- **Screen Contents**—Examples include sea turtle (sp.), sturgeon (sp.), shark (sp.), ray (sp.), other fish of note (sp.), horseshoe crab, blue crab, other crab species, coral, jellyballs, other species of note, environmental debris, and trash.



Operations & Dredging Endangered Species System (ODESS) Marine Mammal Observation



**US Army Corps
of Engineers**

District <div style="border: 1px solid black; height: 20px;"></div>	Project <div style="border: 1px solid black; height: 20px;"></div>	Contract <div style="border: 1px solid black; height: 20px;"></div>
Dredge <div style="border: 1px solid black; height: 20px;"></div>	Dredging Company <div style="border: 1px solid black; height: 20px;"></div>	Load Number (Required)/Date <div style="border: 1px solid black; height: 20px;"></div>
Start Date (Required) <div style="border: 1px solid black; height: 20px;"></div>	Start Time (24 hours) (Required) <div style="border: 1px solid black; height: 20px;"></div>	End Date (Required) <div style="border: 1px solid black; height: 20px;"></div>
End Time (24 hours) (Required) <div style="border: 1px solid black; height: 20px;"></div>		

Beaufort Sea State <input type="checkbox"/> 0 (0-1 kn, 0-0 ft) <input type="checkbox"/> 1 (1-3 kn, 0-1 ft) <input type="checkbox"/> 2 (4-6 kn, 1-2 ft) <input type="checkbox"/> 3 (6-10 kn, 2-3.5 ft) <input type="checkbox"/> 4 (10-16 kn, 3.5-6 ft) <input type="checkbox"/> 5 (16-21 kn, 6-9 ft) <input type="checkbox"/> 6 (21-27 kn, 9-13 ft)	<input type="checkbox"/> 7 (27-33 kn, 13-19 ft) <input type="checkbox"/> 8 (33-40 kn, 19-25 ft) <input type="checkbox"/> 9 (40-47 kn, 25-32 ft) <input type="checkbox"/> 10 (47-55 kn, 32-41 ft) <input type="checkbox"/> 11 (55-63 kn, 41-52 ft) <input type="checkbox"/> 12 (>63 kn, >52 ft)	Species Observed (Required) <input type="checkbox"/> Bryde's/Sei Whale # _____ Est. Length (ft.) _____ <input type="checkbox"/> Fin Whale # _____ Est. Length (ft.) _____ <input type="checkbox"/> Humpback Whale # _____ Est. Length (ft.) _____ <input type="checkbox"/> Manatee # _____ Est. Length (ft.) _____ <input type="checkbox"/> Minke Whale # _____ Est. Length (ft.) _____ <input type="checkbox"/> Pilot Whale # _____ Est. Length (ft.) _____ <input type="checkbox"/> Right Whale # _____ Est. Length (ft.) _____ <input type="checkbox"/> Unknown # _____ Est. Length (ft.) _____
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Air Temp (°C) <div style="border: 1px solid black; height: 20px;"></div>	Water Temp (°C) <div style="border: 1px solid black; height: 20px;"></div>	Winds (K) <div style="border: 1px solid black; height: 20px;"></div>	Seas (ft) <div style="border: 1px solid black; height: 20px;"></div>	Cloud Cover (%) <div style="border: 1px solid black; height: 20px;"></div>
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Magnetic Bearing to Sighting <div style="border: 1px solid black; height: 20px;"></div>	Estimated Distance <div style="border: 1px solid black; height: 20px;"></div>	Vessel's Heading <div style="border: 1px solid black; height: 20px;"></div>	Heading of Animal(s) <div style="border: 1px solid black; height: 20px;"></div>
--	--	--	--

Coloration <div style="border: 1px solid black; height: 20px;"></div>	Fins or Flippers Observed <div style="border: 1px solid black; height: 20px;"></div>
--	---

Behaviors Observed <div style="border: 1px solid black; height: 100px;"></div>	Surfacing Intervals Time <div style="border: 1px solid black; height: 20px;"></div> Surfacing Intervals Distance <div style="border: 1px solid black; height: 20px;"></div>
---	--

Comments (Was the behavior of the animal(s) affected by the vessel? How far did the animal(s) move? Who was notified?)

Observer(s) Name(s) (Required; Print) <div style="border: 1px solid black; height: 40px;"></div>	Observer(s) Signature(s) <div style="border: 1px solid black; height: 40px;"></div>	Observer(s) Company <div style="border: 1px solid black; height: 40px;"></div>
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ODESS Form 4(7) - 071116



Operations & Dredging Endangered Species System (ODESS) Sturgeon Incident



US Army Corps
of Engineers®

District	Project	Contract
<input type="text"/>	<input type="text"/>	<input type="text"/>

Dredge	Dredging Company	Species (Required)
<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Atlantic <input type="checkbox"/> Gulf <input type="checkbox"/> Unknown <input type="checkbox"/> Green <input type="checkbox"/> Shortnose

Load Number (Required)/Date	Recovery Date (Required)	Recovery Time (24 hours) (Required)	Is this a Take? (Required)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

Incident/Take Description

Location Specimen Recovered	Specimen Condition	Rows of Preanal Shields (SSN = 1/ATL = 2)
<input type="checkbox"/> Deck <input type="checkbox"/> Hopper <input type="checkbox"/> Draghead <input type="checkbox"/> Overflow Screen (Circle one) <input type="checkbox"/> Inflow Cage (Circle one) Starboard/Port/Other Starboard/Port/Other <input type="checkbox"/> Pipe	<input type="checkbox"/> Alive <input type="checkbox"/> Severely Decomposed <input type="checkbox"/> Dead <input type="checkbox"/> Skeleton <input type="checkbox"/> Fresh Dead <input type="checkbox"/> Skeleton Old Bone <input type="checkbox"/> Moderately Decomposed <input type="checkbox"/> Undetermined	<input type="text"/>

Location Comment

# Dorsal Scutes (SSN = 8-13/ATL = 7-16)	# Lateral Scutes (SSN = 22-33/ATL = 24-35)	# Ventral Scutes (SSN = 7-11/ATL = 6-9)
<input type="text"/>	<input type="text"/>	<input type="text"/>

Fork Length (cm/in)	Standard Length (cm/in)	Total Length (cm/in)
<input type="text"/>	<input type="text"/>	<input type="text"/>

Mouth Width (cm/in)	Head Width at Eyes (cm/in)	Other (cm/in)
<input type="text"/>	<input type="text"/>	<input type="text"/>

Genetic Samples Taken?	Samples Frozen/Preserved?	Photo Attached?
<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	(If Yes, label the species, date, geographic site, and dredge name on the photo) <input type="checkbox"/> Yes <input type="checkbox"/> No

Comments

Use these diagrams to illustrate the specimen/part that was recovered.



Observer(s) Name(s) (Required: Print)	Observer(s) Signature(s)	Observer(s) Company
<input type="text"/>	<input type="text"/>	<input type="text"/>



Operations & Dredging Endangered Species System (ODESS) Turtle Incident



**US Army Corps
of Engineers**

District <input style="width: 100%;" type="text"/>	Project <input style="width: 100%;" type="text"/>	Contract <input style="width: 100%;" type="text"/>
Dredge <input style="width: 100%;" type="text"/>	Dredging Company <input style="width: 100%;" type="text"/>	<u>Species (Required)</u> <input type="checkbox"/> Green <input type="checkbox"/> Hawksbill <input type="checkbox"/> Kemp's Ridley <input type="checkbox"/> Leatherback <input type="checkbox"/> Loggerhead <input type="checkbox"/> Unknown
Load Number (Required)/Date <input style="width: 100%;" type="text"/>	Is this a Take? (Required) <input type="checkbox"/> Yes <input type="checkbox"/> No	
Recovery Date (Required) <input style="width: 100%;" type="text"/>	Recovery Time (24 hours) (Required) <input style="width: 100%;" type="text"/>	Incident/Take Description <div style="border: 1px solid black; height: 150px; width: 100%;"></div>
Air Temp (°C) <input style="width: 100%;" type="text"/>	Surface Water Temperature (°C) <input style="width: 100%;" type="text"/>	
Mid-Depth Water Temperature (°C) <input style="width: 100%;" type="text"/>	Bottom Water Temperature (°C) <input style="width: 100%;" type="text"/>	
<u>Location Specimen Recovered</u> <input type="checkbox"/> Deck <input type="checkbox"/> Draghead <input type="checkbox"/> Inflow Cage (Circle one) Starboard/Port/Other		
<input type="checkbox"/> Hopper <input type="checkbox"/> Overflow Screen (Circle one) Starboard/Port/Other <input type="checkbox"/> Pipe		
Location Comment <div style="border: 1px solid black; height: 40px; width: 100%;"></div>		<u>Age Class</u> <input type="checkbox"/> Juvenile (10.1-80 cm) <input type="checkbox"/> Sub-Adult (80.1-87 cm) <input type="checkbox"/> Adult (>87 cm) <input type="checkbox"/> Unknown
<u>Tag Type</u> <input type="checkbox"/> Flipper <input type="checkbox"/> Pit <input type="checkbox"/> Other (Specify) <input style="width: 50px;" type="text"/>		<u>Gender</u> <input type="checkbox"/> Female <input type="checkbox"/> Male <input type="checkbox"/> Unknown
Tag Number <input style="width: 100%;" type="text"/>	Head Width (cm/in) <input style="width: 100%;" type="text"/>	<u>Specimen Condition</u> <input type="checkbox"/> Alive <input type="checkbox"/> Dead <input type="checkbox"/> Fresh Dead <input type="checkbox"/> Moderately Decomposed <input type="checkbox"/> Severely Decomposed <input type="checkbox"/> Skeleton <input type="checkbox"/> Skeleton Old Bone <input type="checkbox"/> Undetermined
Tag Date <input style="width: 100%;" type="text"/>	Plastron Length (cm/in) <input style="width: 100%;" type="text"/>	How Gender Determined <input type="checkbox"/> Tail Length <input type="checkbox"/> Eggs Observed <input type="checkbox"/> Other <input style="width: 50px;" type="text"/>
	Plastron Width (cm/in) <input style="width: 100%;" type="text"/>	Photo Attached? If Yes, label the species, date, geographic site, and dredge name on the photo <input type="checkbox"/> Yes <input type="checkbox"/> No
	Carapace Straight Length (cm/in) <input style="width: 100%;" type="text"/>	
	Carapace Straight Width (cm/in) <input style="width: 100%;" type="text"/>	
	Carapace Curved Length (cm/in) <input style="width: 100%;" type="text"/>	
	Carapace Curved Width (cm/in) <input style="width: 100%;" type="text"/>	
Genetic Samples Taken? <input type="checkbox"/> Yes <input type="checkbox"/> No		Final Disposition of Specimen <div style="border: 1px solid black; height: 30px; width: 100%;"></div>
Use these diagrams to illustrate the specimen/part that was recovered.		
		Comments <div style="border: 1px solid black; height: 100px; width: 100%;"></div>
Observer(s) Name(s) (Required, Print) <div style="border: 1px solid black; height: 40px; width: 100%;"></div>		
Observer(s) Signature(s) <div style="border: 1px solid black; height: 40px; width: 100%;"></div>		Observer(s) Company <div style="border: 1px solid black; height: 40px; width: 100%;"></div>



Operations & Dredging Endangered Species System (ODESS) Trawling Report



Date	Dredge Site	Dredge
Trawler	Biologists	Captain
Tide (Time/High or Low)	Hrs <input type="checkbox"/> H <input type="checkbox"/> L	Hrs <input type="checkbox"/> H <input type="checkbox"/> L
Water Temperature (°C)	Air Temperature (°C)	Wave Height
Bottom Type	Wind Speed/Direction	
	Station #s	

[illegible]

Cooperative Marine Turtle Tagging Program (CMTTP) Tagging Data Form

**COOPERATIVE MARINE TURTLE TAGGING PROGRAM (CMTTP)
TAGGING DATA FORM**

SPECIES: _____	DATE CAPTURED: _____	DAY _____	MO _____	YR _____	DATE RELEASED: _____	DAY _____	MO _____	YR _____
TAG NUMBERS (LIST ALL NUMBERS AND LETTER PREFIXES; CIRCLE TAG NUMBERS ALREADY ON THE TURTLE [= "OLD TAGS"]):								
LEFT FRONT: _____		RIGHT FRONT: _____		LEFT REAR: _____		RIGHT REAR: _____		
PIT TAG #: _____				LOCATION OF PIT TAG: _____				
WAS TURTLE CARRYING TAGS WHEN ENCOUNTERED?:				YES	NO	IF YES, THEN CIRCLE CORRECT STATEMENT:		
1. RECAPTURE OF SAME PROJECT TURTLE (EITHER WITHIN SEASON OR BETWEEN SEASONS)								
2. RECAPTURE OF DIFFERENT PROJECT TURTLE (NOT A TAG YOUR GROUP APPLIED)								
TAG RETURN ADDRESS:								
ORGANIZATION TAGGING AND/OR RELEASING TURTLE (INCLUDE AREA CODE/PHONE NUMBER; AND EMAIL):								
PROJECT TYPE (CIRCLE ONE):								
[NESTING BEACH]	[TANGLE NET]	[POUND NET]	[HAND CATCH]	[STRANDING]	[OTHER, DESCRIBE]			
IF NESTING BEACH: DID TURTLE NEST?		YES	NO	UNDETERMINED				
FACILITY WHERE TURTLE WAS BEING HELD:								
DESCRIBE CAPTURE LOCATION. BE SPECIFIC, INCLUDE COUNTY AND LAT/LONG IF AVAILABLE								
DESCRIBE RELEASE LOCATION. BE SPECIFIC, INCLUDE COUNTY AND LAT/LONG IF AVAILABLE.								
TURTLE MEASUREMENTS:								
STRAIGHT CARAPACE LENGTH (SCLMINIMUM):			_____ CM		_____ INCHES			
STRAIGHT CARAPACE LENGTH (SCLNOTCH-TIP):			_____ CM		_____ INCHES			
STRAIGHT CARAPACE WIDTH (SCW):			_____ CM		_____ INCHES			
CURVED CARAPACE LENGTH (CCLMINIMUM):			_____ CM		_____ INCHES			
CURVED CARAPACE LENGTH (CCLNOTCH-TIP):			_____ CM		_____ INCHES			
CURVED CARAPACE WIDTH (CCW):			_____ CM		_____ INCHES			
WEIGHT:			_____ KG		_____ LBS			
TURTLE WAS INSPECTED AND/OR SCANNED FOR:								
TAG SCARS:	YES	NO	WHERE LOCATED?					
PIT TAGS:	YES	NO	WHAT FREQUENCY?					
MAGNETIC WIRES:	YES	NO	WHERE LOCATED?					
LIVING TAGS:	YES	NO	WHERE LOCATED?					
ADDITIONAL REMARKS OR DATA ON BACK OF FORM:			YES	NO				
<p align="center">MAIL COMPLETED FORM TO: ARCHIE CARR CENTER FOR SEA TURTLE RESEARCH, DEPARTMENT OF ZOOLOGY, PO Box 118525 UNIVERSITY OF FLORIDA, GAINESVILLE, FL 32611 USA and SCDNR Marine Turtle Program, PO Box 12559, Charleston, SC 29422</p>								

Protocol for Collecting Tissue from Live and Dead Turtles for Genetic Analysis

Appendix II:

PROTOCOL FOR COLLECTING TISSUE FROM DEAD TURTLES FOR GENETIC ANALYSIS

Method for Dead Turtles

**<<<IT IS CRITICAL TO USE A NEW SCALPEL BLADE AND GLOVES FOR EACH TURTLE TO AVOID
CROSS-CONTAMINATION OF SAMPLES>>>**

1. Put on a new pair of latex gloves.
2. Use a new disposable scalpel to cut out an approx. 1 cm (½ in) cube (bigger is NOT better) piece of muscle. Easy access to muscle tissue is in the neck region or on the ventral side where the front flippers “insert” near the plastron. It does not matter what stage of decomposition the carcass is in.
3. Place the muscle sample on a hard uncontaminated surface (plastron will do) and make slices through the sample so the buffer solution will penetrate the tissue.
4. Put the sample into the plastic vial containing saturated NaCl with 20% DMSO *(SEE BELOW)
5. Use the pencil to write the stranding ID number (observer initials, year, month, day, turtle number by day), species, state and carapace length on the waterproof paper label and place it in the vial with the sample.
EXAMPLE: For a 35.8 cm curved carapace length green turtle documented by Jane M. Doe on July 15, 2001 in Georgia, the label should read “JMD20010715-01, C. mydas, Georgia, CCL=35.8 cm”. If this had been the third turtle Jane Doe responded to on July 15, 2001, it would be JMD20010715-03.
6. Label the outside of the vial with the same information (stranding ID number, species, state and carapace length) using the permanent marker.
7. Place clear scotch tape over the writing on the vial to protect it from being smeared or erased.
8. Wrap parafilm around the cap of the vial by stretching it as you wrap.
9. Place vial within whirlpak and close.
10. Dispose of the scalpel.
11. Note on the stranding form that a part was salvaged, indicating that a genetic sample was taken and specify the location on the turtle where the sample was obtained.
12. Submit the vial with the stranding report to your state coordinator. State coordinators will forward the reports and vials to NMFS for processing and archiving.

*The 20% DMSO buffer in the plastic vials is nontoxic and nonflammable. Handling the buffer without gloves may result in exposure to DMSO. This substance soaks into skin very rapidly and is commonly used to alleviate muscle aches. DMSO will produce a garlic/oyster taste in the mouth along with breath odor. The protocol requires that you WEAR gloves each time you collect a sample and handle the buffer vials.

The vials (both before and after samples are taken) should be stored at room temperature or cooler. If you don't mind the vials in the refrigerator, this will prolong the life of the sample. DO NOT store the vials where they will experience extreme heat (like in your car!) as this could cause the buffer to break down and not preserve the sample properly.

Questions:

Sea Turtle Program
NOAA/NMFS/SEFSC
75 Virginia Beach Drive
Miami, FL 33149
305-361-4207

THANK YOU FOR COLLECTING SAMPLES FOR SEA TURTLE GENETIC RESEARCH!!

Genetic Sample Kit Materials – DEAD turtles

- latex gloves
- single-use scalpel blades (Fisher Scientific 1-800-766-7000, cat. # 08-927-5A)
- plastic screw-cap vial containing saturated NaCl with 20% DMSO, wrapped in parafilm
- waterproof paper label, 1/4" x 4"
- pencil to write on waterproof paper label
- permanent marker to label the plastic vials
- scotch tape to protect writing on the vials
- piece of parafilm to wrap the cap of the vial
- whirl-pak to return/store sample vial

Appendix III:

PROTOCOL FOR COLLECTING TISSUE FROM LIVE TURTLES FOR GENETIC ANALYSIS

Method for Live Turtles

<<<IT IS CRITICAL TO USE A NEW BIOPSY PUNCH AND GLOVES FOR EACH TURTLE TO AVOID
CROSS-CONTAMINATION OF SAMPLES>>>

1. Turn the turtle over on its back.
2. Put on a new pair of latex gloves.
3. Swab the entire cap of the sample vial with alcohol.
4. Wipe the ventral and dorsal surfaces of the rear flipper 5-10 cm from the posterior edge with the Betadine/iodine swab.
5. Place the vial under the flipper edge to use the cleaned cap as a hard surface for the punch.
6. Press a new biopsy punch firmly into the flesh as close to the posterior edge as possible and rotate one complete turn. Cut all the way through the flipper to the cap of the vial.
7. Wipe the punched area with Betadine/iodine swab; rarely you may need to apply pressure to stop bleeding.
8. Use a wooden skewer to transfer the sample from the biopsy punch into the plastic vial containing saturated NaCl with 20% DMSO *(SEE BELOW)
9. Use the pencil to write the stranding ID number (observer initials, year, month, day, turtle number by day), species, state and carapace length on the waterproof paper label and place it in the vial with the sample.
EXAMPLE: For a 35.8 cm curved carapace length green turtle documented by Jane M. Doe on July 15, 2001 in Georgia, the label should read "JMD20010715-01, C. mydas, Georgia, CCL=35.8 cm". If this had been the third turtle Jane Doe responded to on July 15, 2001, it would be JMD20010715-03.
10. Label the outside of the vial with the same information (stranding ID number, species, state and carapace length) using the permanent marker.
11. Place clear scotch tape over the writing on the vial to protect it from being smeared or erased.
12. Wrap parafilm around the cap of the vial by stretching it as you wrap.
13. Place vial within whirlpak and close.
14. Dispose of the biopsy punch.
15. Note on the stranding form that a part was salvaged, indicating that a genetic sample was taken and specify the location on the turtle where the sample was obtained.
16. Submit the vial with the stranding report to your state coordinator. State coordinators will forward the reports and vials to NMFS for processing and archiving.

*The 20% DMSO buffer in the plastic vials is nontoxic and nonflammable. Handling the buffer without gloves may result in exposure to DMSO. This substance soaks into skin very rapidly and is commonly used to alleviate muscle aches. DMSO will produce a garlic/oyster taste in the mouth along with breath odor. The protocol requires that you WEAR gloves each time you collect a sample and handle the buffer vials.

The vials (both before and after samples are taken) should be stored at room temperature or cooler. If you don't mind the vials in the refrigerator, this will prolong the life of the sample. DO NOT store the vials where they will experience extreme heat (like in your car!) as this could cause the buffer to break down and not preserve the sample properly.

Questions:

Sea Turtle Program
NOAA/NMFS/SEFSC
75 Virginia Beach Drive
Miami, FL 33149
305-361-4207

THANK YOU FOR COLLECTING SAMPLES FOR SEA TURTLE GENETIC RESEARCH!!

Genetic Sample Kit Materials – LIVE turtles

- latex gloves
- alcohol swabs
- Betadine/iodine swabs
- 4-6 mm biopsy punch – sterile, disposable (Moore Medical Supply 1-800-678-8678, part #0052442)
- plastic screw-cap vial containing saturated NaCl with 20% DMSO, wrapped in parafilm
- wooden skewer
- waterproof paper label, 1/4" x 4"
- pencil to write on waterproof paper label
- permanent marker to label the plastic vials
- scotch tape to protect writing on the vials
- piece of parafilm to wrap the cap of the vial
- whirl-pak to return/store sample vial



Sea Turtle Handling and Resuscitation Guidelines

Appendix IV: SEA TURTLE HANDLING AND RESUSCITATION GUIDELINES

Any sea turtles taken incidentally during the course of fishing or scientific research activities must be handled with due care to prevent injury to live specimens, observed for activity, and returned to the water according to the following procedures:

A) Sea turtles that are actively moving or determined to be dead (as described in paragraph (B)(4) below) must be released over the stern of the boat. In addition, they must be released only when fishing or scientific collection gear is not in use, when the engine gears are in neutral position, and in areas where they are unlikely to be recaptured or injured by vessels.

B) Resuscitation must be attempted on sea turtles that are comatose or inactive by:

1. Placing the turtle on its bottom shell (plastron) so that the turtle is right side up and elevating its hindquarters at least 6 inches (15.2 cm) for a period of 4 to 24 hours. The amount of elevation depends on the size of the turtle; greater elevations are needed for larger turtles. Periodically, rock the turtle gently left to right and right to left by holding the outer edge of the shell (carapace) and lifting one side about 3 inches (7.6 cm) then alternate to the other side. Gently touch the eye and pinch the tail (reflex test) periodically to see if there is a response.
2. Sea turtles being resuscitated must be shaded and kept damp or moist but under no circumstance be placed into a container holding water. A water-soaked towel placed over the head, carapace, and flippers is the most effective method in keeping a turtle moist.
3. Sea turtles that revive and become active must be released over the stern of the boat only when fishing or scientific collection gear is not in use, when the engine gears are in neutral position, and in areas where they are unlikely to be recaptured or injured by vessels. Sea turtles that fail to respond to the reflex test or fail to move within 4 hours (up to 24, if possible) must be returned to the water in the same manner as that for actively moving turtles.
4. A turtle is determined to be dead if the muscles are stiff (rigor mortis) and/or the flesh has begun to rot; otherwise, the turtle is determined to be comatose or inactive and resuscitation attempts are necessary.

Any sea turtle so taken must not be consumed, sold, landed, offloaded, transshipped, or kept below deck.

These guidelines are adapted from 50 CFR § 223.206(d)(1). Failure to follow these procedures is therefore a punishable offense under the Endangered Species Act.

Online Resources

REFERENCE THE GRBO AND REVISIONS ONLINE AT:

http://sero.nmfs.noaa.gov/protected_resources/section_7/freq_biop/documents/dredge_bo/nov_19_2003_gom_rbo.pdf

http://sero.nmfs.noaa.gov/protected_resources/section_7/freq_biop/documents/dredge_bo/f13976_02187-sad_grbo_revision_1.pdf

http://sero.nmfs.noaa.gov/protected_resources/section_7/freq_biop/documents/dredge_bo/f13817_revision_2_grbo.pdf

Water Quality and Coastal Zone Consistency Certifications



**MISSISSIPPI
DEPARTMENT OF MARINE RESOURCES**

March 3, 2017

Curtis M. Flakes
Chief, Planning and Environmental Division
U.S. Army Corps of Engineers, Mobile District
P.O. Box 2288
Mobile, AL 36628

Re: DMR-080125; FP17-PA02-08; WQC2017063; U.S. Army Corps of Engineers, Mobile District,
Maintenance Dredging, Pascagoula Harbor Navigation Project

Dear Mr. Flakes:

The Department of Marine Resources in cooperation with other state agencies is responsible under the Mississippi Coastal Program (MCP) for managing the coastal resources of Mississippi. Proposed activities in the coastal area are reviewed to insure that the activities are in compliance with the MCP.

The applicant is proposing to conduct maintenance dredging and placement activities associated with the federally authorized Pascagoula Harbor navigation project in the Mississippi Sound, the Gulf of Mexico, Pascagoula River and Bayou Casotte near Pascagoula, Jackson County, MS. The above activity has been reviewed based upon provisions of the Mississippi Coastal Program and Section 307 of the Coastal Zone Management Act of 1972 (as amended). The activity has been determined to be consistent to the maximum extent practicable with the Mississippi Coastal Program provided that the applicant adheres to the following conditions:

1. Maintenance dredging of the following areas shall be completed:
 - a. An entrance channel 44 feet deep and 550 feet wide from the Gulf of Mexico to Horn Island Pass, including a 2,200 foot-long by 200 foot-wide sediment trap situated on the east side of the channel;
 - b. A channel 44 feet deep and 600 feet wide through Horn Island Pass, including a 4,700 foot-long sediment trap situated on the east side of the channel 44 feet deep and 175 feet wide;
 - c. A channel 42 feet deep and 350 feet wide in Mississippi Sound and the Pascagoula River to the railroad bridge at Pascagoula, including a turning basin 2,000 feet long and 350 feet wide (including the channel area) on the west side of the river below the railroad bridge;

(MFR-000129; Direct Federal Consistency, USACE)

March 2, 2017

- d. A channel 42 feet deep and 350 feet wide from the ship channel in Mississippi Sound to the 1,150-foot turning basin at the mouth of Bayou Casotte, then 350 feet wide for about one mile to the northern turning basin, 900 feet wide and 1,750 feet long;
 - e. A channel 22 feet deep and 150 feet wide up Pascagoula River from the railroad bridge to the mouth of Escatawpa River (Dog River), thence up the Escatawpa River to the Highway 613 Bridge;
 - f. A channel 12 feet deep and 125 feet wide from the Highway 613 Bridge, via Robertson and Bounds Lakes to Mile 6.0 on the Escatawpa River;
 - g. A channel 12 feet deep by 80 feet wide extending from deep water in the Pascagoula River to a turning basin in Krebs Lake, a distance of about 1,500 feet, then along the south bank of the lake a channel 10 feet deep and 60 feet wide, terminating at a second turning basin, a distance of 2,700 feet from the first.
2. An additional 2 feet of advanced maintenance plus 2 feet of overdepth dredging will be added to each of the above-authorized project sections;
 3. Dredge material shall be placed in previously approved open-water, semi-confined, littoral zone, upland, and ocean dredged material disposal areas; and,
 4. Vegetated wetlands outside of the above-authorized areas shall not be impacted.

The above granted consistency certification was based upon the application presented. If you have any questions regarding this letter, please contact Greg Christodoulou with the Bureau of Wetlands Permitting at (228) 523-4109 or greg.christodoulou@dmr.ms.gov.

Sincerely,



Willa J. Brantley
Bureau Director, Wetlands Permitting

WJB/gsc

cc: Ms. Carlee Kovacevich, USACE
Ms. Florence Watson, MDEQ
Mr. Raymond Carter, SOS

PUBLIC NOTICE NO. 0017-00000000
GE8MM-PO-ED
January 19, 2017



Figure 1. *Phaeocystis* Harbor Federal Navigation Channel

Figure 1

PUBLIC NOTICE NO. PP-17-PASQ-001
CESAMPD-EC
January 19, 2017

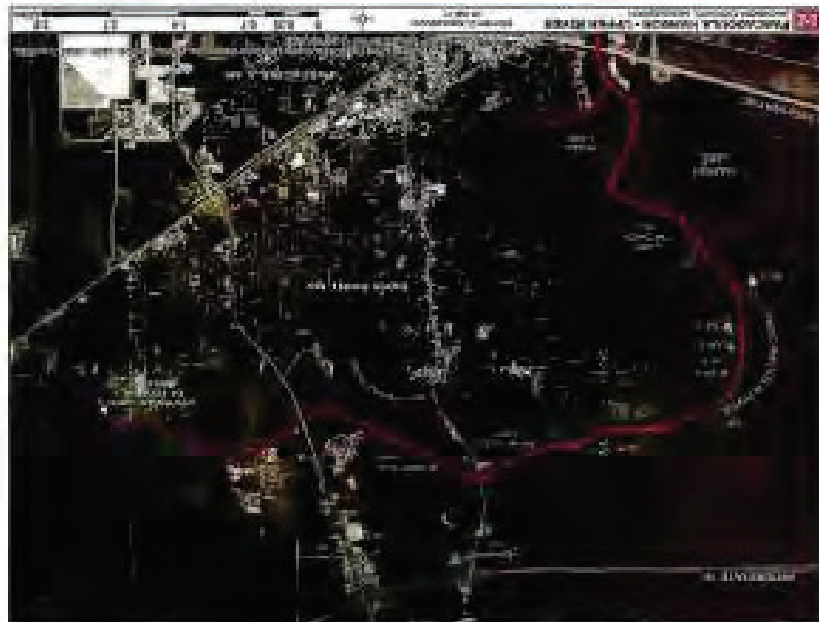


Figure 3. Pseudogata Upper Elbow

2



STATE OF MISSISSIPPI
PHIL BRYANT
GOVERNOR
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
GARY C. RICHARD, EXECUTIVE DIRECTOR

February 22, 2017

Certified Mail No. 7011 0110 0001 3219 0847

Ms. Caree Kovacevich
U.S. Army Corps of Engineers, Mobile District
P.O. Box 2288
Mobile, Alabama 36628-0001

Dear Ms. Kovacevich:

Re: US Army COE, Mobile District,
Maintenance Dredging,
Pascagoula Harbor Navigation
Project
Jackson County
COE No. FP17PA0209
WQC No. WQC2017063

Pursuant to Section 401 of the Federal Water Pollution Control Act (33 U. S. C. 1251, 1341), the Office of Pollution Control (OPC) issues this Certification, after public notice and opportunity for public hearing, to U.S. Army Corps of Engineers, Mobile District, an applicant for a Federal License or permit to conduct the following activity:

US Army COE, Mobile District, Maintenance Dredging, Pascagoula Harbor Navigation Project: The applicant proposes to perform maintenance dredging activities in the Pascagoula Harbor, Jackson County, Mississippi. These activities include: An entrance channel 44 feet deep and 550 feet wide from the Gulf of Mexico to Horn Island Pass, including a 2,200 foot long by 200 foot wide sediment trap situated on the east side of the channel, and a channel 44 feet deep and 600 feet wide through Horn Island Pass, including a 4,700 foot long sediment trap situated on the east side of the channel 44 feet deep and 175 feet wide; A channel 42 feet deep and 350 feet wide in the Mississippi Sound and the Pascagoula River to the railroad bridge at Pascagoula, including a turning basin 2,000 feet long and 950 feet wide (including the channel area) on the west side of the river below the railroad bridge; A channel 42 feet deep throughout and 350 feet wide from the ship channel in the Mississippi Sound to the 1,150 foot turning basin at the mouth

35233 WQC2017063

OFFICE OF POLLUTION CONTROL
Post Office Box 2261 • JACKSON, MISSISSIPPI 39225-2261 • TEL: (601) 961-5171 • FAX: (601) 354-6612 • www.deq.state.ms.us
AN EQUAL OPPORTUNITY EMPLOYER

FEB 27 2017

Ms. Caree Kovacevich
Page 2 of 3
February 22, 2017

of Bayou Casotte, then 350 feet wide for about one mile to the northern turning basin, 900 feet wide and 1,750 feet long; A channel 22 feet deep and 150 feet wide up the Pascagoula River from the railroad bridge to the mouth of the Escatawpa River (Dog River), thence up the Escatawpa River to the Highway 613 Bridge; A channel 12 feet deep and 125 feet wide from the Highway 613 Bridge, via Robertson and Bounds Lakes to mile 6.0 on the Escatawpa River; And a channel 12 feet deep by 80 feet extending from deep water in the Pascagoula River to a turning basin in Krebs Lake a distance of about 1,500 feet, then a channel 10 feet deep and 60 feet wide along the south bank of the lake a channel 10 feet deep and 60 feet wide, terminating at a second turning basin, a distance of 2,700 feet from the first. An additional 2 feet of advanced maintenance plus 2 feet of overdepth dredging will be added to each project section. Maintenance dredging of soft-dredged material with hopper, mechanical, and/or hydraulic cutterhead dredges tends to disturb the bottom sediments several feet deeper than the target depth due to the inaccuracies of the dredging process. An additional -3 feet of sediment below the -2-foot paid allowable overdepth dredging cut could be disturbed in the process with minor amounts of material being removed. Approximately 2,000,000 cubic yards of material would be removed during these activities. Dredged material will be disposed in approved upland and open-water disposal areas. [FP17PA0209, WQC2017063].

The Office of Pollution Control certifies that the above-described activity will be in compliance with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the Federal Water Pollution Control Act and Section 49-17-29 of the Mississippi Code of 1972, if the applicant complies with the following conditions:

1. The channel depth shall gradually increase toward open water and shall not exceed the controlling navigational depth. No "sumps" shall be created by proposed dredging.
2. The excavated material disposed in pre-approved upland sites shall be stabilized to prevent movement of sediment into adjacent drainage areas.
3. Best management practices should be used at all times during construction to minimize turbidity at both the dredge and spoil disposal sites. The disposal sites shall be constructed and maintained in a manner that minimizes the discharge of turbid waters into waters of the State. Best management practices should include, but not be limited to, the use of staked hay bales; staked filter cloth; sodding, seeding and mulching; staged construction; and the installation of turbidity screens around the immediate project site. Any effluent from the disposal area should be

Ms. Caree Kovacevich

Page 3 of 3

February 22, 2017

routed through a return swale system and filtered through a series of hay
bales and silt fences so as to reduce the turbidity of the effluent.

4. Turbidity outside the limits of a 750-foot mixing zone shall not exceed
the ambient turbidity by more than 50 Nephelometric Turbidity Units.
5. No sewage, oil, refuse, or other pollutants shall be discharged into the
watercourse.

The Office of Pollution Control also certifies that there are no limitations under
Section 302 nor standards under Sections 306 and 307 of the Federal Water Pollution
Control Act which are applicable to the applicant's above-described activity.

This certification is valid for the project as proposed. Any deviations without proper
modifications and/or approvals may result in a violation of the 401 Water Quality
Certification. If we can be of further assistance, please contact us.

Sincerely,



Harry M. Wilson, P.E., DEE
Chief, Environmental Permits Division

HMW: JP

cc: Greg Christodoulou, Department of Marine Resources
David Felder, U.S. Fish and Wildlife Service
Calista Mills, Environmental Protection Agency

Letter from U.S. Fish and Wildlife Service

Kovacevich, Caree C CIV USARMY CESAM (US)

From: Paul Ncaise <paul_ncaise@fws.gov>
Sent: Thursday, February 23, 2017 3:54 PM
To: Kovacevich, Caree C CIV USARMY CESAM (US)
Cc: Reynolds, Lekesha W CIV (US); david_felder@fws.gov
Subject: [EXTERNAL] RE: Pascagoula Harbor O&M Re-certification Request

Caree,

The U.S. Fish and Wildlife Service has reviewed the subject operation and maintenance (O&M) dredging and placement activities associated with the federally authorized Pascagoula Harbor Navigation Project. The subject re-certification would be for a 10 year authorization.

Based on information discussed in a teleconference today with your office, the Service understands that the only changes in the new certification request is the disposal area 10 (DA 10) and the littoral zone placement area near Horn Island. The change will allow for future disposal of suitable material in the more active littoral zone area east of Horn Island. The Service also understands that no material will be placed above the mean high tide line on DA 10 or any other disposal area that contains suitable habitat for nesting shorebirds or nesting sea turtles. DA 10, Horn Island and other surrounding islands are designated critical habitat areas for the piping plover and are also utilized by wintering red knot, and nesting sea turtles. The West Indian manatee also utilizes Mississippi waters, including the project area, and recent data indicates an increase in use of the Mississippi coastal waters by this species.

The Service concurs with your determination that the proposed work should have no adverse impact to the islands adjacent to the project area other than temporary disturbance as a result of turbidity and sediment shifting following dredging/placement activities. We have attached guidance for construction activities in areas containing West Indian manatee. The attached manatee guidance should be included in the re-certification authorization conditions to avoid impacts to this species. Therefore, based on the information provided, the Service concurs that the proposed project may effect, but not likely to adversely affect nesting loggerhead and green sea turtles, piping plover, red knot, Alabama red-bellied turtle, and West Indian manatee (provided the attached guidance is adhered to). The proposed project re-certification would have no effect on other species known to be located in Jackson County such as Kemp's ridley sea turtle (not known to nest in Mississippi), Louisiana black bear, Mississippi sandhill crane, black pine snake, pearl darter, red-cockaded woodpecker, gopher tortoise, Gulf sturgeon, yellow-blotched map turtle, Mississippi gopher frog, and Louisiana quillwort. Further, the eastern indigo snake has been extirpated from Mississippi. Additionally, coordination should take place with the National Marine Fisheries Service regarding any species that may also be under the jurisdiction of their agency such as Gulf sturgeon and sea turtles.

Based on the information provided and the effects determinations outlined above, the Service has no objection to the re-certification of the O&M activities associated with the subject project. Should any activities be modified from the subject plan or any activities have apparent potential to impact federally listed species, the corps should reinstitute consultation with our office. This concludes section 7 consultation for this project. Should you have any questions, you may contact me at the telephone number listed below.

Paul Necaise
Coastal Biologist
U.S. Fish and Wildlife Service
6578 Dogwood View Parkway, Suite A
Jackson, MS 39213
228-493-6631
paul_necaise@fws.gov

NOTE: This email correspondence and any attachments to and from this sender is subject to the Freedom of Information Act (FOIA) and may be disclosed to third parties.-----Original Message-----

From: Kovacevich, Caree C CIV USARMY CESAM [US]
[mailto:Caree.A.Kovacevich@usace.army.mil]
Sent: Friday, January 20, 2017 10:26 AM
To: Paul Necaise (Paul_Necaise@fws.gov)
Cc: Reynolds, Lekesha W CIV [US]; Kovacevich, Caree C CIV USARMY CESAM [US]
Subject: Pascagoula Harbor O&M Re-certification Request

Hi Paul,

See attached for an electronic advance copy of our Pascagoula Harbor O&M re-certification request. Hard copies are being sent in the mail today. Let me know if you need anything else.

Thanks!

In Service,

Caree Kovacevich
Biologist
USACE, Mobile District
Planning Division
Coastal Environment
109 St. Joseph Street
Mobile, Alabama 36695
251.690.3026

Letter from Mississippi State Historic Preservation Officer



February 15, 2017

Ms. Caree Kovacevich
U.S. Army Engineer District, Mobile
Post Office Box 2288
Mobile, Alabama 36628-0001

RE: Public Notice No. FP17-PA02-09; Proposed maintenance dredging and
placement activities, Pascagoula Harbor, MDAH Project Log #01-130-17,
Jackson County

Dear Ms. Kovacevich:

We have reviewed your request for a cultural resources assessment, received on
January 27, for the above referenced project, in accordance with our responsibilities
under Section 106 of the National Historic Preservation Act and 36 CFR Part 800. After
review, it is our determination that no cultural resources eligible for listing in the National
Register of Historic Places are likely to be affected by the project. As such, we have no
objections to the proposed undertaking.

There remains the possibility that unrecorded cultural resources may be encountered
during the project. Should this occur, we would appreciate your contacting this office
immediately in order that we may offer appropriate comments under 36 CFR 800.13.

If you have any questions, please let me know.

Sincerely,

Hal Bell
Review and Compliance Officer
Historic Preservation Division

FOR: Katie Blount
State Historic Preservation Officer

Section 103 Concurrence from EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

ATLANTA FEDERAL CENTER
51 FORTNINTH STREET
ATLANTA, GEORGIA 30303-8901

JAN 12 2017

Mr. Curtis M. Flakes
Chief
Planning and Environmental Division
U.S. Army Corps of Engineers
Mobile District
P.O. Box 2288
Mobile, Alabama 36628-0001

Dear Mr. Flakes:

This letter is in response to the request by the Mobile District of the U.S. Army Corps of Engineers (Corps) for concurrence in the proposed disposal of dredged material from the Pascagoula Federal Navigation Project into the Pascagoula Ocean Dredged Material Disposal Site (ODMDS). We received the Section 103 Tier 1 Evaluation and request for concurrence on October 31, 2016. On December 21, 2016, we received additional information provided by your office as requested. Based upon our independent evaluation and review of the Section 103 Evaluation and supplemental information we received, we concur that the proposed dredged material meets the criteria for ocean disposal with the conditions described below and in the attachment.

Pursuant to Section 103(c) of the Marine Protection, Research, and Sanctuaries Act, as amended (MPRSA), concurrence from the U.S. Environmental Protection Agency is based upon compliance with the criteria, conditions and restrictions established pursuant to Sections 102(a) and 102(c) of MPRSA. We understand that dredging will be accomplished by utilizing either hopper, mechanical, and/or hydraulic cutter-head dredges, or in some combination, and material placement will occur at least 2000 feet inside the ODMDS boundary. All of the material proposed for placement is unlikely to have changed significantly since the last concurrence. Specifically, the material from Pascagoula Bar Channel, the Horn Island Pass Channel, and the Horn Island Impoundment basin meet the exclusionary criteria pursuant to 40 CFR §227.13(b)(3). Based on the Short Term Fate Dredged Material modeling results, all other project segments do not meet the exclusionary criteria but meet the limiting permissible concentrations, as specified in 40 CFR §227.27, when disposed of within the volumetric limitations listed in the attachment. Accordingly, the EPA's concurrence is conditioned upon the project including contract specifications that limit the maximum volume of material per trip (i.e., bin sizes for barge, scow, or hopper dredges) consistent with the limits in the attachment for each segment.

As with all concurrences provided by this office, our concurrence on the disposal of this material is contingent upon compliance with all specifications and conditions of the Site Management and Monitoring Plan (SMMP) for the ODMDS. The SMMP requires that the Corps provide the EPA with the disposal tracking data during the project as well as post-disposal data at the completion of the project. In addition, in order to assist in compliance, please provide specific demarcations (coordinates, etc.) between the listed segments to the EPA and the contractor prior to initiation of the work. Additionally, please inform us when work commences and concludes.

Printed Address (LFL) - flakes@epa.gov
This document is printed on 100% recycled paper with 10% post consumer waste.

The EPA's commitment is valid for three years and is effective as of the date of this letter. If you have any questions concerning this letter, please contact me at 404-562-9345, or have a member of your staff contact Dr. Wade Lehman at (404) 562-4082 or lehmaan.maria@epa.gov

Sincerely,



Mary S. Walker

Director

Water Protection Division

Attachment 1: Table of segments and bid items

Attachment 1

Project segment maximum allowable load per trip, for either Operation and Maintenance material, or New Work material.

Pascagoula Project Segments	Maximum Allowable Load per Trip (cubic yards)
Lower Pascagoula Channel	12,000
Upper Pascagoula Channel	4,000
Pascagoula River Channel	13,500
Lower Bayou Casotte Channel	12,000
Upper Bayou Casotte Channel	16,000

Pascagoula Harbor ODMDS Site Management and Monitoring Plan (SMMP)

August 2016



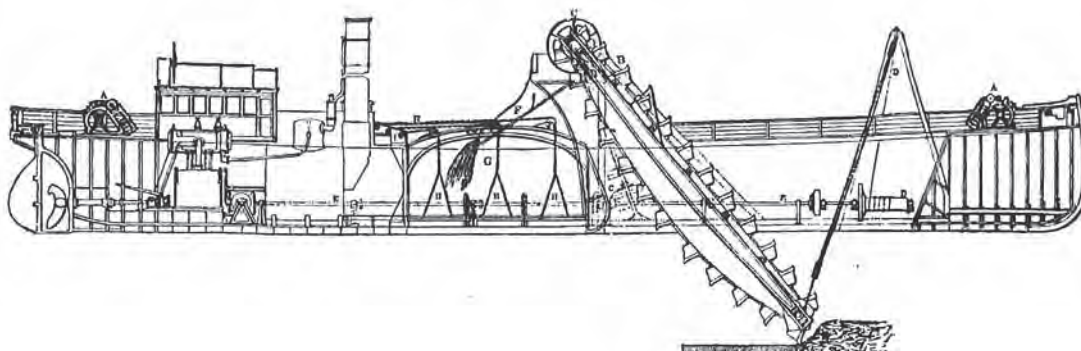
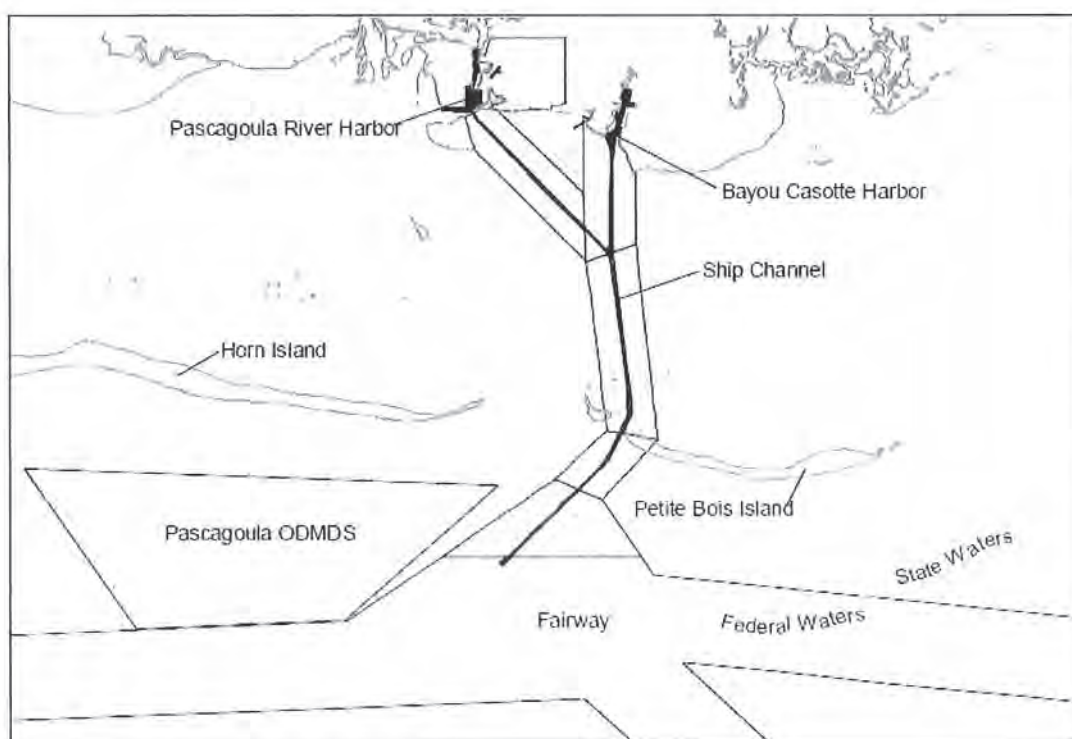
Pascagoula

OCEAN DREDGED MATERIAL DISPOSAL SITE

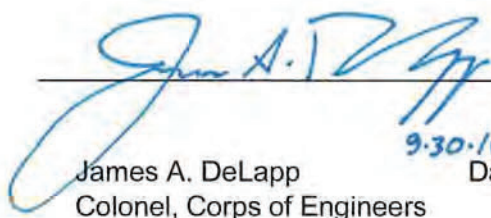


U.S. Army Corps
of Engineers

SITE MANAGEMENT AND MONITORING PLAN



The following Site Management and Monitoring Plan (SMMP) for the Pascagoula Ocean Dredged Material Disposal Site (ODMDS) has been developed and agreed to pursuant to the Water Resources Development Act (WRDA) Amendments of 1992 to the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972 for the management and monitoring of ocean disposal activities, as resources allow, by the U.S. Environmental Protection Agency (EPA) and the U.S. Army Corps of Engineers (USACE).



James A. DeLapp
Colonel, Corps of Engineers
District Commander
P.O. Box 2288
Mobile, Alabama
9-30-16 Date



V. Anne Heard
Acting Regional Administrator
U.S. Environmental Protection Agency
Region 4
Atlanta, Georgia
Date 7/23/16

This plan is effective from the date of signature for a period not to exceed 10 years. The plan shall be reviewed and revised more frequently if site use and conditions at the site indicate a need for revision.

PASCAGOULA OCEAN DREDGED MATERIAL DISPOSAL SITE

SITE MANAGEMENT AND MONITORING PLAN

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Table 4	Surveys and Studies Conducted at the Pascagoula ODMDS
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Appendix B	Generic Special Conditions for MPRSA Section 103 Permits, Pascagoula ODMDS
Appendix C	Generic Contract Language for Use of the Pascagoula ODMDS

PASCAGOULA OCEAN DREDGED MATERIAL DISPOSAL SITE

SITE MANAGEMENT AND MONITORING PLAN

1.0 INTRODUCTION.

It is the responsibility of the EPA and USACE under the MPRSA of 1972 to manage and monitor ODMDs designated by EPA pursuant to Section 102 of the MPRSA. The goal of this management is to ensure ocean dredged material disposal activities will not unreasonably degrade the marine environment or endanger human health or economic potential. As part of this responsibility, a SMMP was originally developed as part of the designation process and was published in July 1991 as part of the *Final Environmental Impact Statement for the Designation of an Ocean Dredged Material Disposal Site Located Offshore Pascagoula, Mississippi* (FEIS) to specifically address the disposal of dredged material into the Pascagoula ODMDs. This plan will include past monitoring results and will comply with provisions in WRDA of 1992 and a 2007 Memorandum of Understanding (MOU) between EPA, Region 4 and USACE, South Atlantic Division (SAD). Upon finalization of this SMMP, these provisions shall be requirements for all dredged material disposal activities at the Pascagoula ODMDs. **All Section 103 (MPRSA) ocean disposal permits and concurrences shall be conditioned as necessary to assure consistency with the SMMP.**

This SMMP has been prepared in accordance with the *Guidance Document for Development of Site Management Plans for Ocean Dredged Material Disposal Sites* (EPA & USACE, 1996). This document provides a framework for the development of SMMPs required by MPRSA and WRDA of 1992. The SMMP may be modified if it is determined that such changes are warranted as a result of information obtained during the monitoring process. The SMMP will be reviewed and revised as needed or every 10 years, whichever time period is shorter.

1.1 Site Management and Monitoring Plan Team. An interagency SMMP team has been established to assist EPA and the USACE in managing this SMMP. The team consists of the following agencies and their respective representatives:

USACE, Mobile District
Ms. Jennifer Jacobson
Ms. Caree Kovacevich

Port of Pascagoula
Mr. Randy Joplin

Mississippi Department of Environmental Quality
Ms. Florance Bass

EPA Region 4
Dr. Wade Lehmann

Mississippi Department of Marine Resources
Mr. Jan Boyd
Mr. Jamie Miller

Mississippi Secretary of State,
Land Division

National Oceanic and Atmospheric Administration
Fisheries
Mr. Roy Crabtree
Mr. David Bernhart

U.S. Coast Guard
District Commander
Eighth District

Other agencies, such as the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS), will be asked to participate where appropriate. The SMMP team will assist EPA and the USACE in evaluating existing monitoring data, type of disposal (i.e., operations and maintenance (O&M) vs. new work), quality of material (i.e., sand vs. mud vs. silt/clay), location of disposal within the Pascagoula ODMDS, and quantity of material. The team will assist EPA and the USACE on deciding appropriate monitoring techniques, level of monitoring, significance of results, and potential management options.

Specific responsibilities of EPA and the USACE, Mobile District are:

EPA: EPA is responsible for designating and/or de-designating MPRSA Section 102 ODMDSs, for evaluating environmental effects from disposal of dredged material at these sites and for reviewing and concurring on dredged material suitability determinations.

USACE: The USACE is responsible for evaluating dredged material suitability, issuing MPRSA Section 103 permits, regulating site use, selecting MPRSA Section 103(b) ocean disposal sites if no suitable EPA designated site is available, and developing and implementing disposal monitoring programs. All of the above activities are handled by the Planning & Environmental Division of the Mobile District. The exception to this is Regulatory Division, Mobile District is responsible for: issuing MPRSA Section 103 permits, evaluating dredged material suitability and submitting Section 103 Evaluation Reports for Regulatory projects.

2.0 SITE MANAGEMENT.

Management of the ODMDS involves a broad range of activities including regulating schedule of use, quantity, and physical/chemical characteristics of dredged material placed at the site. It also involves establishing disposal controls, conditions and requirements to avoid and minimize potential impacts to the marine environment. Finally, ODMDS management involves monitoring site environs to verify unanticipated or significant adverse effects are not occurring from past or continued use of the site and that permit/concurrence conditions are met.

Section 228.3 of the Ocean Dumping Regulations (40 CFR §220 - 229) states "management of a site consists of regulating times, rates, and methods of disposal and quantities and types of materials disposed of; developing and maintaining effective ambient monitoring programs for the site; conducting disposal site evaluation studies; and recommending modifications in site use and/or designation". The plan may be modified if it is determined that such changes are warranted as a result of information obtained through the monitoring process. MPRSA, as amended by WRDA of 1992, provides SMMPs shall include but not be limited to:

- A baseline assessment of conditions at the site;
- A program for site monitoring;
- Special management conditions or practices to be implemented at each site

- necessary for the protection of the environment;
- Consideration of the quantity and physical/chemical characteristics of dredged materials placed at the site;
- Consideration of anticipated site use over the long-term; and
- A schedule for review and revision of the plan.

2.1 Disposal Site Characteristics. The Pascagoula ODMDS is located within the area surrounded by Horn Island to the north, the Pascagoula Entrance channel to the east, the navigation safety fairway to the south, and a north-south line running through Dog Keys Pass to the west (**Figure 1**). The Pascagoula ODMDS encompasses an area of approximately 18.5 square nautical miles (nmi²) ranging in depth from approximately -30 feet Mean Lower Low Water (MLLW) in the north to over -52 feet MLLW in the southern section. The center coordinates for the site are 30°10'09"N and 88°39'12"W. The corner coordinates of the Pascagoula ODMDS are North American Datum (NAD) 27:

Latitude 30°12'06" N	Longitude 88°44'30" W
Latitude 30°11'42" N	Longitude 88°33'24" W
Latitude 30°08'30" N	Longitude 88°37'00" W
Latitude 30°08'18" N	Longitude 88°41'54" W

State Plane 2301 Mississippi East

30.2016667°	-088.7416667°
30.1950000°	-088.5566667°
30.1416667°	-088.6166667°
30.1383333°	-088.6983333°

It is intended that the Pascagoula ODMDS will be utilized for maintenance and new work material from the Pascagoula Harbor Federal navigation project and possibly by private entities, such as the Jackson County Port Authority (JCPA), Port of Gulfport, Northrop Grumman (formerly known as Ingalls Shipbuilding), and Chevron Refinery.

Much of this use is projected to occur in the future and therefore the exact nature and quantity of material, timing of disposal, and type of equipment to be used are unknown. Physical and biological conditions at the Pascagoula ODMDS are described in the *Final Environmental Impact Statement for the Designation of an Ocean Dredged Material Disposal Site located Offshore Pascagoula, Mississippi* (EPA, 1991).

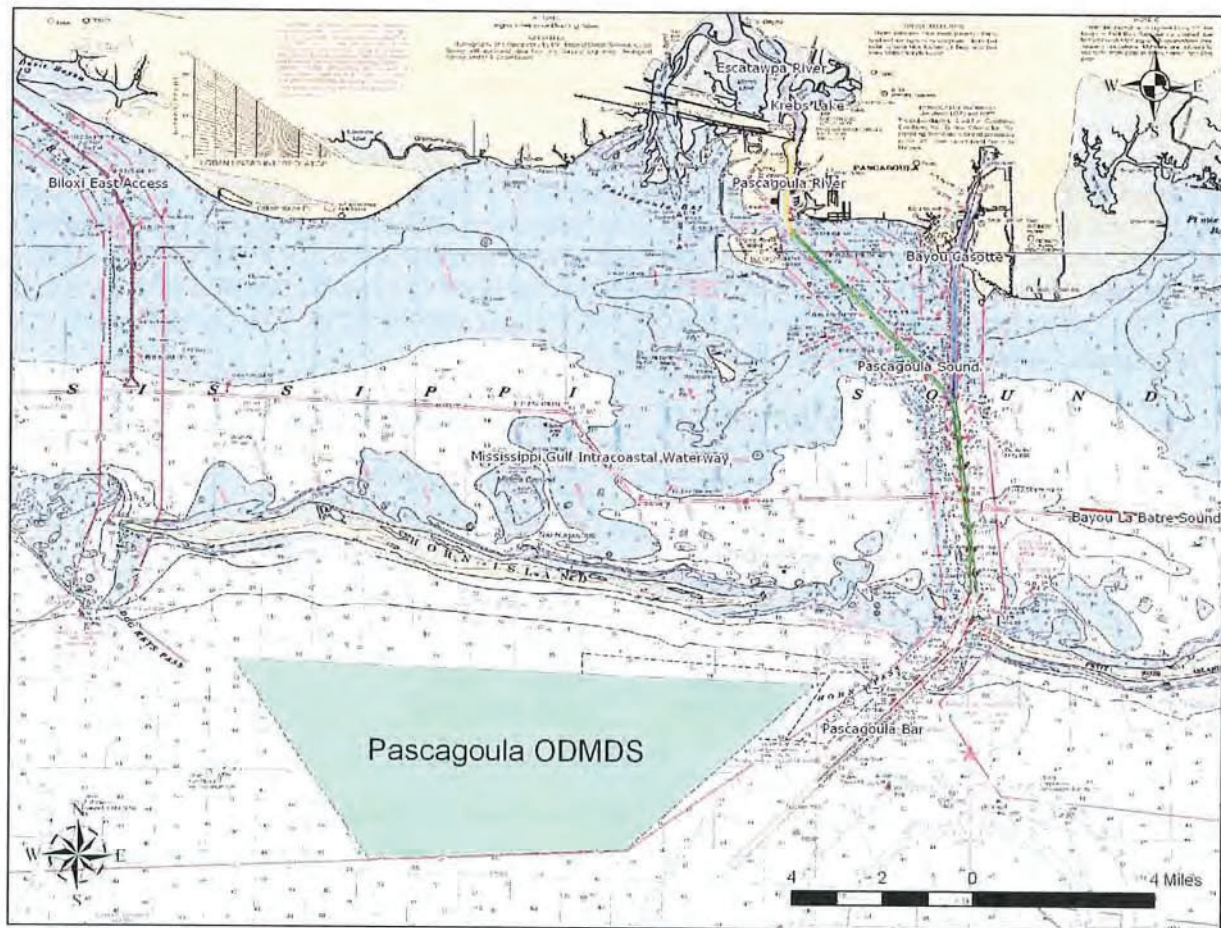


Figure 1: Pascagoula ODMDs Vicinity Map

2.2 Management Objectives. Appropriate management of an ODMDs is aimed at assuring disposal activities will not unreasonably degrade or endanger human health, welfare, the marine environment or economic potentialities (MPRSA §103(a)). There are three primary objectives in managing the Pascagoula ODMDs:

- Protection of the marine environment, living resources, and human health and welfare;
- Documentation of disposal activities at the Pascagoula ODMDs and provision of information which is useful in managing dredged material disposal activities; and
- Provide for beneficial use of dredged material whenever practical.

The objective of the SMMP is to provide guidelines in making management decisions necessary to fulfill mandated responsibilities to protect the marine environment

as discussed previously. Risk-free decision-making is an impossible goal; however, an appropriate SMMP can narrow the uncertainty. The following sections provide the framework for meeting these objectives.

2.3 Disposal History and Dredged Material Volumes. It is intended that the Pascagoula ODMDS will be used for disposal of dredged material (both maintenance and/or new work material) from the Pascagoula Harbor and vicinity. The primary user of the ODMDS will be the USACE for maintenance of the Pascagoula Harbor Federal navigation project. In 1985, the Port of Pascagoula Special Management Area (SMA) Plan was prepared to implement a strategy for management of the port. Included in this plan was a long-term plan for placement of dredged material from maintenance of the Federal project and JCPA facilities. In 1986, the plan was modified to include the need for ocean disposal of approximately 650,000 cubic yards (cys) of maintenance material from the federally-authorized navigation project every other year. The modification was made necessary due to construction of Naval Station Pascagoula at an area previously used for disposal of dredged material, which has since closed.

Also in 1985, the USACE completed studies on the improvement of the Federal Deep-Draft Navigation channel at Pascagoula. These studies recommended improvements, which would result in approximately 14 million cys of new work dredged material being transported to the Pascagoula ODMDS for placement. The WRDA 1986 authorized these improvements. In addition, the construction of the access channel and turning basin at Naval Station Pascagoula required the dredging of approximately 1 million cys of material with subsequent maintenance of approximately 250,000 cys every other year. Initially, this material was to be placed in the remaining disposal area on Singing River Island (SRI), the location of the station. However, due to the size and condition of this site, materials from the Navy channels were not placed at SRI but rather at the ODMDS. Since then, a semi-confined placement area for dredged material was completed in 2014 adjacent to SRI.

Due to the large size of this site (approximately 18.5 nmi²) and the projected dredged material volumes (3-5 million cys) over the next 10 years, capacity is not a concern at this time. If volumes exceed projections by more than 25%, capacity will be considered. A small portion of the ODMDS has historically been utilized for placement of dredged material as shown in **Table 1** and **Figure 2**. Disposal history can also be found at the Ocean Disposal Database maintained by the Engineer Research and Development Center (ERDC) (<http://el.erdcl.usace.army.mil/odd/>).

Table 1. Dredged material placement at the Pascagoula ODMDS

Year	Volume (cys)	Material Type	Project
2005	121,000	O&M: Mixture	Civil Works Channel (Pascagoula Bar)
2006	672,500	O&M: Mixture	Civil Works Channel (Pascagoula Bar)
2007	N/A		
2008	1,489,100	O&M: Mixture	Civil Works (Pascagoula Bar & Horn Island Pass)
2009	152,700	O&M: Mixture	Civil Works Channel (Pascagoula Bar)
2010	N/A		
2011	248,726	O&M: Mixture	Civil Works Channel (Horn Island Pass)
2012	N/A		
2013	1,216,428	O&M: Mixture	Civil Works Channel (Pascagoula Bar)
2014	875,067	NW and O&M: Mixture	Civil Works Channel (Pascagoula Bar)
2015	N/A		

(O&M = Operations & Maintenance; NW = New Work; cys = cubic yards)

Future volumes and rates of placement, predominantly from Federal interests, are expected to range approximately 530,000 cys per year. Short-term (5-year) projected placement volumes are shown in **Table 2**. Civil works maintenance projects for Pascagoula Harbor are anticipated to account for approximately 100% of the total volume of material to be placed at the ODMDS.

Table 2. Projected Volume of Dredged Material Disposed in the Pascagoula ODMDS (5-year estimates)

Year	Type of Action	Source	Volume(cys)	Sponsor	Composition
2016	NA	None anticipated	NA	NA	NA
2017	O&M	Civil Works Channel	530,000	JCPA	O&M: Mixture
2017*	O&M	Civil Works Channel	3,900,000*	Gulfport Harbor	O&M: Mixture
2018*	O&M	Civil Works Channel	3,900,000*	Gulfport Harbor	O&M: Mixture
2018	O&M	Civil Works Channel	530,000	JCPA	O&M: Mixture
2019	NA	None anticipated	NA	NA	NA
2020	O&M	Civil Works Channel	530,000	JCPA	O&M: Mixture

*Tentative action

The Pascagoula ODMDS is believed to be a dispersive site, particularly during active hurricane seasons. Storm events occurring in the vicinity of the Pascagoula ODMDS since 2004 are listed in **Table 3**. However, the dispersiveness of the site and consequently the capacity of the ODMDS have yet to be determined. Future monitoring may be incorporated to address this issue, should mounding or effects outside the disposal site boundaries be observed.

Table 3: Storm Activity in the Vicinity of the Pascagoula ODMDS

Storm	Year
Ivan ¹	2004
Arlene ²	2005
Cindy ²	2005
Dennis ¹	2005
Katrina ¹	2005
Tammy ²	2005
Alberto ²	2006
Fay ²	2008
Gustav ¹	2008
Claudette ²	2009
Ida ¹	2009
Bonnie ²	2010
Isaac ¹	2012
Andrea ²	2013

¹ Hurricane, ² Tropical Storm

2.4 Material Suitability. Maintenance and new work dredged material is expected to be placed at the site. This material will consist of mixtures of silts, clays, and sands in varying percentages. Sediments dredged from navigation channels in the Pascagoula Harbor

include an ocean source (sandy, littoral materials), river source (fine-grained sands, silts, and clays derived from easily eroded soils from the upper Pascagoula River basin), and mixtures of both. Shoals occur where specific physical factors promote deposition or movement of sediments. These factors may vary spatially and temporally.

The USACE Beneficial Use of Dredged Material Engineer Manual (EM) 1110-2-5026 requires dredged material be maximized within the coastal system. The disposition of any significant quantities of beach compatible sand from future projects will be determined on a project-by-project basis. Utilization of any significant quantities of beach compatible dredged material for beach nourishment is strongly encouraged and supported by the USACE and EPA. In fact, the USACE manages dredged material under its Regional Sediment Management (RSM) initiative to be used beneficially and remain within the natural sediment budget. As part of this management tool, dredging and disposal operations are evaluated based upon the entirety of the coastal system rather than individually. Disposition of non-beach quality sand should be planned to allow the material to be placed so that it will be within or accessible to the sand-sharing system, to the maximum extent practical, and following the provisions of the Clean Water Act.

There is no general restriction regarding the type of material that may be placed at the site. However, the suitability of dredged material for ocean disposal must be verified by the USACE and agreed to (concurred) by EPA prior to disposal. Verification will be valid for three years from the time last verified. Verification will involve the following:

- 1) A case-specific evaluation against the exclusion criteria (40 CFR 227.13(b));
- 2) A determination of the necessity for testing including bioassay (toxicity and bioaccumulation) testing for non-excluded material based on the potential for contamination of the sediment since last tested; and
- 3) Carrying out the testing (where needed) and determining that the non-excluded, tested material is suitable for ocean disposal.

Verification documentation for suitability and EPA concurrence will be completed prior to use of the ODMDS. Documentation will be in the form of a MPRSA Section 103 Evaluation. Potential testing and evaluation will follow procedures outlined in the 1991 EPA/USACE Dredged Material Testing Manual (Green Book) and 2008 Southeast Regional Implementation Manual (SERIM) or appropriate updated versions. This includes how dredging projects will be subdivided into project segments for sampling and analysis. The MPRSA Section 103 Evaluation will be in the form outlined in Appendix C of the SERIM. Water Quality Compliance determinations will be made using the short-term fate of dredged material (STFATE-ADDAMS) model. Only material determined to be suitable and in compliance with Ocean Dumping Criteria (40 CFR §227) through the verification process by the USACE and EPA, Region 4 can be disposed in the ODMDS.

2.5 Timing of Disposal. Between April 1 and November 30 monitoring and precautions necessary to protect sea turtles and Gulf sturgeon, as described in *Section 2.6*, are required on hopper dredges. Additionally, if new information indicates that endangered or threatened species are being adversely impacted, additional restrictions may be imposed.

2.6 Disposal Techniques. To protect sea turtles and Gulf sturgeon, the NMFS requires monitoring according to guidance outlined in the *Final Regional Biological Opinion for Hopper Dredging of Channels and Sand Mining Areas in the Gulf of Mexico by Galveston, New Orleans, Mobile, and Jacksonville Districts* (NMFS, 2003, amended 2005 and 2007).

In addition, standard surveillance and evasive measures to protect sea turtles, Gulf sturgeon and marine mammals shall be employed during all placement operations at the ODMDS.

Due to the predominant current regime in the area, the site is considered to be dispersive, so that erosion and off-site dispersion is expected to occur. Based on the results of the sediment mapping study and current studies, it is desirable to predetermine the disposal methodologies and locations within the ODMDS for placement of dredged material, at least until sufficient monitoring information has been collected to provide assurance that dispersion does not result in adverse impacts. Since currents tend to be predominantly west-southwest or west-northwest in the proposed area, initial placement of fine-grained material will be made in the easternmost portions of the ODMDS, to the extent practicable, in order to ensure the material does not migrate offsite.

It also appears, based on geology of the area and analysis of the sediment mapping data, that finer-grained material is more predominant in the central and southernmost portions of the ODMDS. When possible, consideration should also be given to placement of finer grained-material in this area, with coarser material being placed in the northern portion of the ODMDS.

Benefits associated with the construction of a submerged berm, wave energy reduction and habitat creation, were investigated as part of the National Underwater Berm Demonstration Project at Mobile, Alabama. As a result, this type of disposal proved to be beneficial. Although no significant environmental resources have been identified in the vicinity of the Pascagoula ODMDS, this technique may prove beneficial if segregation of different types of material within the ODMDS is deemed appropriate by USACE.

2.7 Disposal Location. Disposal shall occur no less than 330 feet (100 meters) inside the site boundaries to comply with 40 CFR §227.28. Although mounding is desirable at the Pascagoula ODMDS, placement methods shall prevent mounding of dredged materials from becoming a navigation hazard. Dredged material shall be placed so that at no point will depths less than -25 feet MLLW occur (i.e., a clearance of 25 feet above the bottom will be maintained). To maximize ODMDS capacity and promote the desired mounding of material, the placement shall be in specified disposal zones and placed repeatedly at one location; however, at no point shall this mounding obstruct navigation. When necessary, the USACE in consultation with EPA Region 4 will specify zones (**Figure 2**) within the ODMDS for dredged material from each specific ocean disposal activity. Depths at the time of placement will be monitored to detect if adjustments of disposal methods are needed to prevent unacceptable mounding (navigation hazards). The physical removal or leveling of material above -25 feet MLLW is a management alternative should mounds greater than those elevations occur.

Additionally, while there are currently no active offshore oil and gas lease blocks within the Pascagoula ODMDS boundaries, there could be in the foreseeable future. In the event that a lease block is activated within the ODMDS boundaries, and exploration and/or extraction activities are initiated, all subsequent dredged material disposal zones will be specified so as to maintain a minimum 1,300-foot buffer from oil and gas rigs.

PASCAGOULA ODMS SMMP

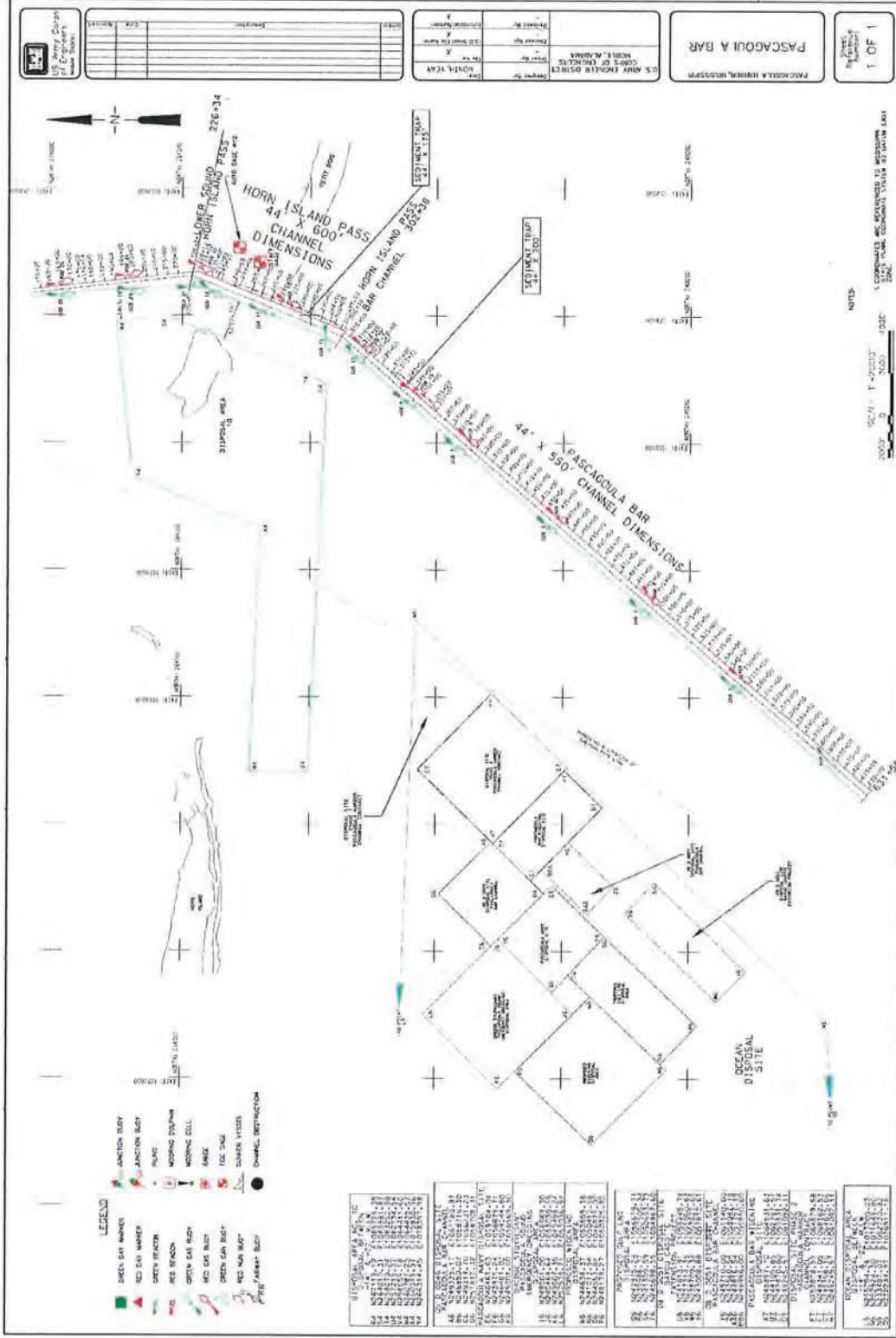


Figure 2: Map of Pascagoula ODMSD and utilized cells

2.8 Permit and Contract Conditions. The Pascagoula ODMDS is intended for use by a number of entities including the USACE, JCPA, Northrup Grumman, Chevron Refinery, etc. Each of these users will have different needs relative to quantity, type of material, timing, etc.; therefore partitioning of the site for specific users may be an appropriate management technique. This could facilitate monitoring and surveillance of individual disposal activities; however, it may not be the most appropriate management technique if beneficial results are desired as previously described.

Pre and post-disposal monitoring requirements described under *Section 3.0 Site Monitoring* will be included as permit conditions on all MPRSA Section 103 permits and will be incorporated in the contract language for all Federal projects. A summary of the management and monitoring requirements to be included are listed in **Table 3**. Appendix B contains a template for standard permit conditions for MPRSA 103 permits for the Pascagoula ODMDS and Appendix C contains a template for standard contract conditions for Civil Works project use of the ODMDS.

Table 3. Summary of Permit and Contract Conditions

Condition	Reference
Dredged Material Suitability and Term of Verification	Pascagoula ODMDS SMMP Section 2.4
Disposal within Appropriate Zones	Pascagoula ODMDS SMMP Section 2.7
Disposal Monitoring and Recording of Disposal Locations	Pascagoula ODMDS SMMP Section 3.2
Post Bathymetric Surveys within 30 days of Project Completion	Pascagoula ODMDS SMMP Section 3.3
Reporting Requirements: Daily & Monthly Operations Reports and Disposal Summary Reports within 90 Days of Project Completion	Pascagoula ODMDS SMMP Section 3.5

2.9 Permit Process. All ocean placement of dredged material, with exception of Federal Civil Works projects, requires an ocean dumping permit issued by the USACE pursuant to Section 103 of the MPRSA. A summary of the permitting process can be found in 33 CFR § 320-325.

2.10 Information Management of Dredged Material Placement Activities. As discussed in the following sections, a substantial amount of diverse data regarding use of the Pascagoula ODMDS and the effects of disposal is required from many sources (EPA, USACE, Navy, JCPA). If this information is readily available and in a useable format it can be used to answer many questions typically asked about a disposal site:

- o What is being dredged?
- o How much is being dredged?

- o Where did the dredged material come from?
- o Where was the dredged material placed?
- o Was material dredged correctly? Placed correctly?
- o What will happen to the environment at the disposal site?

As part of site management, EPA and the USACE will investigate alternatives for appropriate data management. The USACE has an Ocean Disposal Database maintained by ERDC. This database provides quantities placed at the Pascagoula ODMDS along with chemical, physical, and biological information, and whether the project is civil works or a privately permitted action.

The Mobile District Spatial Data Branch (CESAM-OP-J) has created an online Sediment Sampling Mapping Module that has capacity to organize and access all data relating to core borings and sediment testing activity. This application will allow users to retrieve detailed sediment sample properties (e.g. X, Y locations, harbor bottom elevations, top of rock elevation, or material characteristics) correlating with all relevant sediment testing (chemical, biological, or physical) results, and link related documents such as core borings, gradation curves or sediment testing reports.

In an attempt to streamline data sharing, EPA Region 4 and USACE, SAD has agreed on an eXtensible Markup Language (XML) standard for sharing of disposal monitoring data (see also *Section 3.5*).

3.0 SITE MONITORING. The MPRSA establishes the need for including a monitoring program as part of the SMMP. Site monitoring is conducted to ensure the environmental integrity of a disposal site and the surrounding areas are unharmed and to verify compliance with site designation criteria, any special management conditions, and with permit/concurrence requirements. Monitoring programs should be flexible, cost effective, and based on scientifically sound procedures and methods to meet site-specific monitoring needs. A monitoring program should have the ability to detect environmental change as a result of disposal activities and assist in determining compliance. The intent of the program is to provide the following:

- (1) Information indicating whether the disposal activities are occurring in compliance with permit and site restrictions,
- (2) Information concerning short-term and long-term environmental impacts of disposal; and/or
- (3) Information indicating short-term and long-term fate of materials placed in the marine environment.

The main purpose of a disposal site monitoring program is to determine whether dredged material site management practices, including disposal operations need to be changed to avoid significant adverse impacts.

3.1 Baseline Monitoring. The Pascagoula ODMDS was designated in 1991. Biological, chemical, and physical studies of the Pascagoula ODMDS were conducted during the designation process. Results of investigations presented in the designation FEIS and

subsequent surveys listed in Table 4 will serve as the main body of data for the monitoring of impacts associated with the of the Pascagoula ODMDS.

Table 4. Surveys and Studies Conducted at the Pascagoula ODMDS

Survey/Study Title	Conducted By:	Date	Purpose	Results
<i>Analysis & Synthesis of Oceanic Conditions in the Mississippi Sound Offshore Region</i>	USACE	March 1984	Determine the direction and amount of sediment transport from a dredged material disposal site.	Circulation patterns within the site are controlled by astronomical tides, winds, and freshwater discharges.
Field Survey of the Pascagoula ODMDS (<i>Analysis & Synthesis of Oceanic Conditions in the Mississippi Sound Offshore Region</i>)	USACE	March 1984	Video, Bathymetry, Hydrography, Water Quality, Sediment Benthic Survey, Tissue Analysis	Baseline Survey
Sediment Mapping	UGA Center for Applied Isotopes for EPA	1987	Characterization of bottom sediments using continuous sediment sampling system	Baseline Survey
Pascagoula ODMDS Benthic Communities Study	USACE	July 1991	Benthic community characterization	Baseline analysis
Bathymetric Surveys	USACE		Monitor bathymetry changes	Database
Post Disposal Sediment Mapping at the Pascagoula ODMDS	EPA/UGA Center for Applied Isotope Studies	1999	GIMS/CS3 Chemical Evaluation	Database
Benthic Community Assessment	EPA	1999	Benthic community characterization	Database no significant changes observed
Sediment Quality Assessment for Lead	EPA	2001	Characterize Lead concentrations in ODMDS	Database, Lead concentrations below 30 mg/kg
Western Area Sediment Characterization	EPA	2003	Physical/Chemical Characterization of Sediments in Western half of ODMDS	Baseline Survey no anomalies observed
Status and Trends Assessment (40 CFR §228.13)	EPA	2006	To determine the physical, chemical, geological, and biological structure of the ODMDS	Benthic community is viable and healthy and in recovery with no adverse effects of disposal of dredged material.

Evaluation of Dredged Material from Pascagoula Harbor Post Deepwater Horizon Oil Spill	USACE	2010	Evaluate suitability of proposed dredged material for ocean disposal post oil spill.	Results of PAH and TPH testing of surface sediments showed no discernible evidence that sediment quality had been impacted by the Deepwater Horizon Oil spill.
Evaluation of Proposed Dredged Material from Pascagoula Bar Channel, Pascagoula, MS	USACE	2012	Evaluate suitability of proposed dredged material from Pascagoula Bar Channel for ocean disposal.	Results of the sediment testing would be expected to meet exclusionary criteria for placement at the ODMDS.
Bathymetric Survey	USACE	11/2014	Post-disposal surveys. O&M dredging of Pascagoula Harbor.	Material from O&M dredging of Pascagoula Harbor placed within ODMDS.

3.2 Disposal Monitoring. For all disposal activities, an electronic tracking system (ETS) must be utilized. The ETS will provide surveillance of the transportation and disposal of dredged material. The ETS will be maintained and operated to continuously track the horizontal location and draft condition (accuracy ± 0.1 foot) of the disposal vessel (i.e. hopper or scow) from the point of dredging to the disposal site and return to the point of dredging. Data shall be collected at least every 0.25 nautical mile or every 4 minutes during travel to and from the Pascagoula ODMDS and twelve seconds or every 30 feet of travel, while the hull status is open within the Pascagoula ODMDS. In addition to the continuous tracking data, the following trip information shall be electronically recorded for each dredging and disposal cycle:

- a. Load Number
- b. Disposal Vessel Name and Type (e.g. hopper, scow)
- c. Estimated volume of Load
- d. Description of Material Placed
- e. Source of Dredged Material
- f. Date, Time and Location at Initiation and Completion of Disposal Event

It is expected that disposal monitoring will be conducted utilizing the Dredging Quality Management (DQM) system for Civil Works projects [see <http://dqm.usace.army.mil/Specifications/Index.aspx>], although other systems are acceptable. Disposal monitoring and ETS data will be reported to EPA Region 4 on a weekly basis (within 1 week of disposal) utilizing the XML specification and protocol per Section 3.5. EPA Region 4 and USACE, Mobile District shall be notified within 24 hours if disposal outside of the Pascagoula ODMDS, specified disposal zone, or if excessive leakage is suspected.

3.3 Post-Disposal Monitoring. The USACE or other site user will conduct a bathymetric survey within 30 days after disposal project completion. [Surveys will not be required for projects less than 50,000 cys]. Surveys will conform to the minimum performance

standards for Corps of Engineers Hydrographic Surveys as described in the USACE Engineering Manual, EM1110-2-1003, *Hydrographic Surveying*, dated November 30, 2013 [http://www.publications.usace.army.mil/Portals/76/Publications/EngineerManuals/EM_1110-2-1003.pdf] or updates. Surveys will be taken along lines spaced at 500-foot intervals or less. The minimum performance standards from Table 3-1 in *Hydrographic Surveying* shall be followed. Horizontal location of the survey lines and depth sounding points will be determined by an automated positioning system utilizing a differential global positioning system. The vertical datum will be referenced to prescribed MLLW datum. The horizontal datum should be referenced to the local State Plane Coordinate System (SPCS) for the Pascagoula area (zone 2301 Mississippi East) or in Geographical Coordinates (latitude-longitude). The horizontal reference datum should be the NAD 1983.

The number and length of transects required will be sufficient to encompass the Pascagoula ODMDS and a 500-foot wide area around the disposal zone. The survey area may be reduced on a case-by-case basis if disposal zones are specified and adhered to.

3.4 Material Tracking and Disposal Effects Monitoring. Surveys can be used to address possible changes in bathymetric, sedimentological, chemical, and biological aspects of the Pascagoula ODMDS and surrounding area as a result of placement of dredged material at the site.

3.4.1 Summary of Results of Past Monitoring Surveys. The *Final Environmental Impact Statement for the Designation of an Ocean Dredged Material Disposal Site located Offshore Pascagoula, Mississippi* and **Table 4** provide past surveys at the Pascagoula ODMDS. Results of investigations presented in the FEIS, and subsequent surveys will serve as the main body of baseline data for monitoring of impacts associated with the use of the Pascagoula ODMDS. This baseline data includes the following surveys: benthic macroinvertebrates, fisheries, water and sediment chemistry, sediment mapping, physical oceanographic conditions, and bathymetry. No adverse impacts to benthic infauna within the ODMDS or surrounding area have been observed.

Monitoring of the Pascagoula ODMDS was completed in April 2006 (USEPA, 2008). Results of this survey indicate the benthic community is viable and while some significant differences were found when comparing the actively-used part of the site to that which has never been used, there were no discernable differences when the area dumped on was compared to areas outside the ODMDS. A cursory review of the data indicates differences seen between the various zones, particularly patterns that emerge in the sediment metals data, are a result of the wide disparity between these zones in the percentage of the silt/clay fraction making up sediments found in each location. In March 2016, a Status & Trends Assessment was completed by EPA. Results from the survey will be appended to this SMMP as necessary.

3.4.2 Future Monitoring Surveys. Based on the type and volume of material placed and impacts of concern, various monitoring surveys can be used to examine if, and the direction, placed dredged material is moving, and what environmental effect the material is having on the site and adjacent areas.

Within 30 days of completion of a disposal event, detailed bathymetric surveys of the disposal area will be completed. The interagency team will meet, if necessary, to review the results of these efforts and determine the need for additional information. This need will be based on observance of any anomalies (i.e. potential cultural resources) or

potential adverse impacts associated with a specific event. If the results of the bathymetric surveys do not indicate any anomalies or adverse impacts, no additional monitoring will be required for the disposal event. Reassessment of the site will be undertaken in accordance with 40 CFR §228.13 approximately every 10 years. Status and trend assessments include characterization of water quality, benthic communities, and sediment size/chemistry allowing for identification and interpretation of changes in community structure. Additional surveys for water quality, sediment mapping, or the use of remote sensing equipment may also be required.

At the current time, no nearby biological resources have been identified that are of concern for potential impact. The Pascagoula ODMDS is at least one nautical mile from all known fish havens and artificial reefs. The site has been designated as a dispersive site. This means that it is expected that material will be moved outside the site boundaries. It is also expected that this material will not move in distinct mounds, but instead will blend with the surrounding environment causing a progressive transition to sediments containing a higher percentage of silt and clay. Changes in sediment composition will likely alter the benthic community structure. However, based on previous benthic studies, it is unlikely that permanent or long-term adverse impacts will result due to changes in sediment composition. Future surveys, as outlined in **Table 5**, will focus on determining the rate and direction of placed dredge material dispersal and the capacity of the ODMDS. Should future placement at the ODMDS result in unacceptable adverse impacts, further studies may be required to determine persistence of these impacts, extent of the impacts within the marine system, and/or possible means of mitigation. In addition, the management plan presented may require revision based on the outcome of any monitoring program.

Table 5: Pascagoula ODMDs Monitoring Strategies and Thresholds for Action

Goal	Technique	Sponsor	Rationale	Frequency	Threshold for Action	Management Options	
						Threshold Not Exceeded	Threshold Exceeded
Monitor Bathymetric Trends	Bathymetry	Site User	Determine the extent of the disposal mound and major bathymetric changes	Post disposal	Disposal mound occurs outside ODMDs boundaries	Continue Monitoring	-Modify disposal method/placement -Restrict disposal volumes -Designate new site
Benthic Effects Monitoring	Sediment Mapping (Gamma/CS ³)	EPA	Determine aerial influence of dredged material	Completed	Communities under the influence of dredged material outside the site have significant differences in diversity/ richness/biomass from those not under dredged material influence after one-year recovery period.	Discontinue monitoring unless disposal quantities, type of material or frequency of use significantly changes	-Limit quantity of dredged material to prevent impacts outside boundaries -Create berms to retard dredged material movement -Cease site use
	Benthic Survey	EPA	Determine impact of dredged material on benthic community	Completed			
Long-Term Fate	Modeling	EPA/ USACE	Determine dispersiveness of site and aerial extent of impact	As resources allow	Aerial extent of impact reaches resources of concern and/or increases over time.	Continue to use site without restrictions	-Restrict disposal volumes -Create berms to retard dredged material transport -Cease site use / Designate new site
	Current Meter & Wave Gauge	EPA/ USACE/ Site Users					
	Erosional Analysis	EPA					
	Precision Bathymetry and Sidescan	USACE/ EPA					
	Regional Grain Size Analysis	USACE /Site Users					
Site Capacity	Information from Long Term Fate	EPA/ USACE/ Site Users	Determine dispersiveness of site and long and short term capacity	-As resources allow -Prior to any project in excess of 3 million cubic yards	New work volumes exceed estimated capacity	Continue to use site without restrictions	-Designate new site for new work
					Maintenance volumes exceed estimated capacity	Continue to use site without restrictions	- Designate new site for new work
					New work volumes exceed estimated capacity	Continue to use site without restrictions	- Designate new site for new work
Ensure Safe Navigation Depth	Bathymetry	Site User	Determine height of mound and any excessive mounding	Post disposal	Mound height > -30 feet mean lower low water (MLLW)	Continue Monitoring	-Modify disposal method/placement -Restrict disposal volumes
					Mound height > -25 feet MLLW	Continue Monitoring	- Physically level material

Table 5 (Continued). ODMDS Monitoring Strategies and Thresholds for Action

Goal	Technique	Spons or	Rationale	Frequency	Threshold for Action	Management Options	
						Threshold Not Exceeded	Threshold Exceeded
Ensure Safe Navigation Depth	Bathymetry	Site User	Determine height of mound and any excessive mounding	Post disposal	Mound height > -30 feet mean lower low water (MLLW)	Continue Monitoring	-Modify disposal method/placement -Restrict disposal volumes
					Mound height > -25 feet MLLW	Continue Monitoring	- Physically level material
Compliance	Disposal Site Use Records	Site User	-Ensure management requirements are being met -To assist in site monitoring	Daily during the project	Disposal records required by SMMP are not submitted or are incomplete	Continue Monitoring	-Restrict site use until requirements are met
					Review of records indicates a dump occurred outside ODMDS boundary	Continue Monitoring	-Notify EPA Region 4/USACE, and investigate why mis-dumps occurred. Take appropriate enforcement action.
					Review of records indicates a dump occurred in the ODMDS but not in target area	Continue Monitoring	-Direct placement to occur as specified.

3.5 Reporting and Data Formatting. Disposal monitoring data shall be provided electronically by the USACE Project Manager to EPA Region 4. Disposal monitoring data shall be provided to EPA Region 4 electronically on a weekly basis (within one week of disposal event). Data shall be provided per the EPA Region 4 XML format and delivered as an attachment to an email to: DisposalData.R4@epa.gov. The XML format is available from EPA Region 4.

Disposal summary reports shall be provided to EPA, Region 4 within 90 days after project completion. These reports should include: vessel name, disposal start and end dates and times; dredging project; volume disposed, number of loads completed, type of material disposed; contractor conducting the work, permit and/or contract number; identification of any misplaced material; and dates of bathymetric surveys of the Pascagoula ODMDS. Disposal summary reports should be accompanied by the bathymetry survey results (contour plot and X, Y, Z ASCII data file). These reports can be accessed by USACE personnel at the DQM Website: <http://dqm-portal.usace.army.mil>.

The user will be required to prepare and submit to the USACE daily reports of operations and a monthly report of operations for each month or partial month's work. The user is also required to notify the USACE and the EPA within 24 hours (or next business day) if a violation of the permit and/or contract conditions occur during placement operations. In the case of large new work projects where the material is expected to consist of stiff clays, it is recommended that mid-project bathymetric surveys be conducted of the placement area to ensure that mounding limits are not exceeded.

4.0 ANTICIPATED SITE USE. It is anticipated that there will be a need for use of the Pascagoula ODMDS for many years. The anticipated site is projected for dredged material placement of approximately 530,000 cys of dredged material on a 2 to 3 year basis (not including tentative actions). This projection is based on shoaling rates, past dredging records, currently available dredged material placement options, and USACE planning

documents.

5.0 MODIFICATION OF THE PASCAGOULA ODMDS SMMP. If results of monitoring surveys or validation reports from other sources indicate continued use of the Pascagoula ODMDS would lead to unacceptable effects, then ODMDS management will be modified to mitigate those effects. The SMMP will be reviewed and updated at least every 10 years or if necessary due to significant use changes. For example, the SMMP will be reviewed if the quantity or type of dredged material placed on site changes significantly or if conditions at the site indicate a need for revision. The plan should be updated in conjunction with activities authorizing use of the site.

6.0 IMPLEMENTATION OF THE PASCAGOULA ODMDS SMMP. This plan shall be effective from date of signature for a period not to exceed 10 years. The plan shall be reviewed and revised more frequently if site use and conditions at the site indicates a need for revision. The EPA and USACE shall share responsibility for implementation of the SMMP. Site users may be required to undertake monitoring activities as a condition of their permit. The USACE will be responsible for implementation of the SMMP for Federal new work and maintenance projects.

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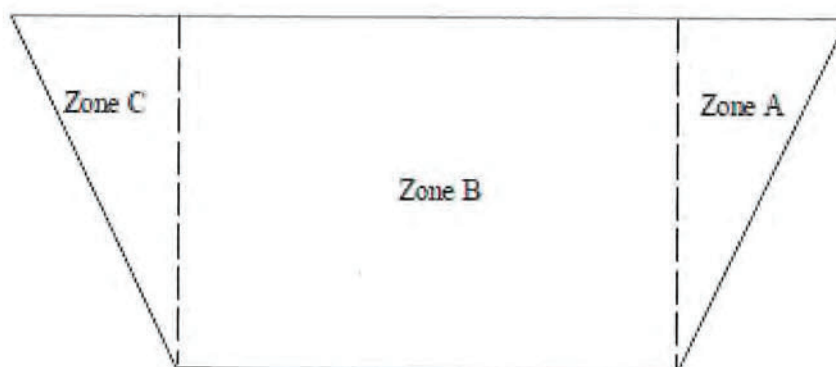
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APPENDIX A

**WATER COLUMN EVALUATIONS NUMERICAL
MODEL (STFATE) INPUT PARAMETERS**

Water Column Evaluations Numerical Model
(STFATE) Input Parameters Pascagoula
ODMDS

Pascagoula ODMDS
STFATE Modeling Zones



Water Column Evaluations
Numerical Model (STFATE) Input Parameters
Pascagoula ODMDS Zone A

SITE DESCRIPTION

Parameter	Value	Units
Number of Grid Points (left to right)	45	
Number of Grid Points (top to bottom)	45	
Spacing Between Grid Points (left to right)	600	ft
Spacing Between Grid Points (top to bottom)	600	ft
Constant Water Depth	46	ft
Roughness Height at Bottom of Disposal Site	.005 ¹	ft
Slope of Bottom in X-Direction	0	Deg.
Slope of Bottom in Z-Direction	0	Deg.
Number of Points in Ambient Density Profile Point	2	
Ambient Density at Depth = 5 ft	1.0174	g/cc
Ambient Density at Depth = 44 ft	1.0230	g/cc
Ambient Density at Depth = 75 ft	1.0271	g/cc

AMBIENT VELOCITY DATA

Parameter	Value	Units
Profile	2-Point at constant depth	
X-Direction Velocity at Depth = 10 ft	-0.232	ft/sec
Z-Direction Velocity at Depth = 10 ft	-0.232	ft/sec
X-Direction Velocity at Depth = 40 ft	-0.116	ft/sec
Z-Direction Velocity at Depth = 40 ft	+0.116	ft/sec

DISPOSAL OPERATION DATA

Parameter	Value	Units
Location of Disposal Point from Top of Grid	8,500 ²	ft
Location of Disposal Point from Left Edge of Grid	8,200 ²	ft
Dumping Over Depression	0	

INPUT, EXECUTION AND OUTPUT

Parameter	Value	Units
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Location of the Upper Left Corner of the Disposal Site - Distance from Top Edge	2,000	ft
Location of the Upper Left Corner of the Disposal Site - Distance from Left Edge	2,000	ft
Location of the Lower Right Corner of the Disposal Site - Distance from Top Edge	21,500	ft
Location of the Lower Right Corner of the Disposal Site - Distance from Left Edge	20,500	ft
Duration of Simulation	14,400	sec
Long Term Time Step	600	sec

COEFFICIENTS

Parameter	Keyword	Value
Settling Coefficient	BETA	0.000 ¹
Apparent Mass Coefficient	CM	1.000 ¹
Drag Coefficient	CD	0.500 ¹
Form Drag for Collapsing Cloud	CDRAG	1.000 ¹
Skin Friction for Collapsing Cloud	CFRIC	0.010 ¹
Drag for an Ellipsoidal Wedge	CD3	0.100 ¹
Drag for a Plate	CD4	1.000 ¹
Friction Between Cloud and Bottom	FRICTN	0.010 ¹
4/3 Law Horizontal Diffusion Dissipation Factor	ALAMDA	0.001 ¹
Unstratified Water Vertical Diffusion Coefficient	AKYO	Pritchard Expression
Cloud/Ambient Density Gradient Ratio	GAMA	0.250 ¹

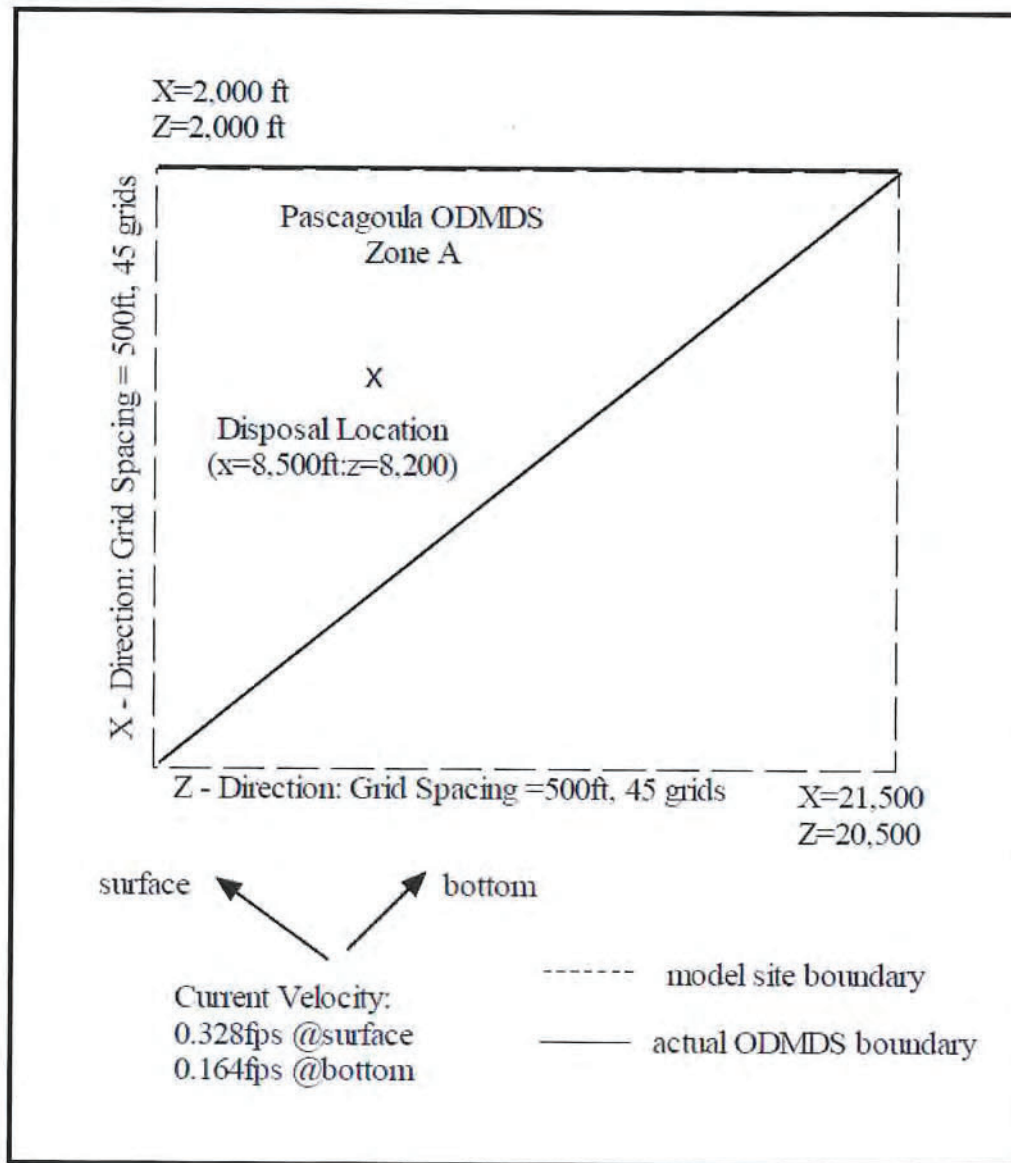
Turbulent Thermal Entrainment	ALPHAO	0.235 ¹
Entrainment in Collapse	ALPHAC	0.100 ¹
Stripping Factor	CSTRIP	0.003 ¹

¹Model default value

²Represents center of zone A. Dredged material requiring disposal in another location in order to meet the dilution criteria must be brought to the attention of EPA and the USACE.

Typical dilution achieved after 4 hours = 500:1

Plume does not reach site boundaries within 4 hours



Water Column Evaluations
Numerical Model (STFATE) Input Parameters
Pascagoula ODMDs Zone B

SITE DESCRIPTION

Parameter	Value	Units
Number of Grid Points (left to right)	45	
Number of Grid Points (top to bottom)	45	
Spacing Between Grid Points (left to right)	600	ft
Spacing Between Grid Points (top to bottom)	600	ft
Constant Water Depth	46	ft
Roughness Height at Bottom of Disposal Site	.005 ¹	ft
Slope of Bottom in X-Direction	0	Deg.
Slope of Bottom in Z-Direction	0	Deg.
Number of Points in Ambient Density Profile Point	2	
Ambient Density at Depth = 5 ft	1.0174	g/cc
Ambient Density at Depth = 46 ft	1.0230	g/cc

AMBIENT VELOCITY DATA

Parameter	Value	Units
Profile	2-Point at constant depth	
X-Direction Velocity at Depth = 10 ft	-0.232	ft/sec
Z-Direction Velocity at Depth = 10 ft	-0.232	ft/sec
X-Direction Velocity at Depth = 40 ft	-0.116	ft/sec
Z-Direction Velocity at Depth = 40 ft	+0.116	ft/sec

DISPOSAL OPERATION DATA

Parameter	Value	Units
Location of Disposal Point from Top of Grid	13,500 ²	ft
Location of Disposal Point from Left Edge of Grid	14,500 ²	ft
Dumping Over Depression	0	

INPUT, EXECUTION AND OUTPUT

Parameter	Value	Units
Location of the Upper Left Corner of the Disposal Site - Distance from Top Edge	2,000	ft
Location of the Upper Left Corner of the Disposal Site - Distance from Left Edge	2,000	ft
Location of the Lower Right Corner of the Disposal Site - Distance from Top Edge	25,000	ft
Location of the Lower Right Corner of the Disposal Site - Distance from Left Edge	27,000	ft
Duration of Simulation	14,400	sec
Long Term Time Step	600	sec

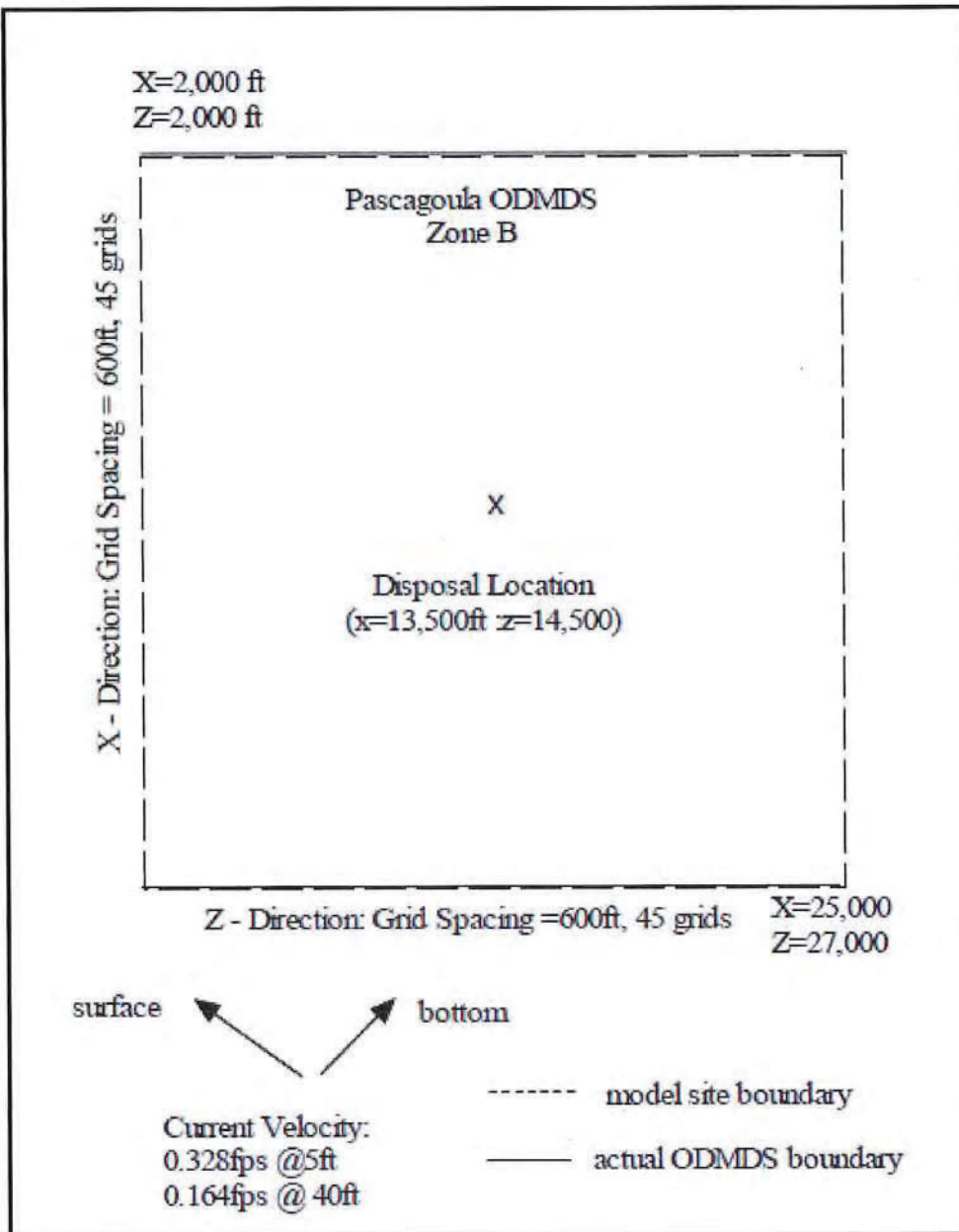
COEFFICIENTS

Parameter	Keyword	Value
Settling Coefficient	BETA	0.000 ¹
Apparent Mass Coefficient	CM	1.000 ¹
Drag Coefficient	CD	0.500 ¹
Form Drag for Collapsing Cloud	CDRAG	1.000 ¹
Skin Friction for Collapsing Cloud	CFRIC	0.010 ¹
Drag for an Ellipsoidal Wedge	CD3	0.100 ¹
Drag for a Plate	CD4	1.000 ¹
Friction Between Cloud and Bottom	FRICTN	0.010 ¹
4/3 Law Horizontal Diffusion Dissipation Factor	ALAMDA	0.001 ¹
Unstratified Water Vertical Diffusion Coefficient	AKYO	Pritchard Expression
Cloud/Ambient Density Gradient Ratio	GAMA	0.250 ¹
Turbulent Thermal Entrainment	ALPHAO	0.235 ¹
Entrainment in Collapse	ALPHAC	0.100 ¹
Stripping Factor	CSTRIP	0.003 ¹

¹Model default value²Represents center of zone B. Dredged material requiring disposal in another location in order to meet the dilution criteria must be brought to the attention of EPA and the USACE.

Typical dilution achieved after 4 hours = 500:1

Plume does not reach site boundaries within 4 hours



Water Column Evaluations
Numerical Model (STFATE) Input Parameters
Pascagoula ODMDS Zone C

SITE DESCRIPTION

Parameter	Value	Units
Number of Grid Points (left to right)	45	
Number of Grid Points (top to bottom)	45	
Spacing Between Grid Points (left to right)	400	ft
Spacing Between Grid Points (top to bottom)	600	ft
Constant Water Depth	47	ft
Roughness Height at Bottom of Disposal Site	.005 ¹	ft
Slope of Bottom in X-Direction	0	Deg.
Slope of Bottom in Z-Direction	0	Deg.
Number of Points in Ambient Density Profile Point	2	
Ambient Density at Depth = 5 ft	1.0174	g/cc
Ambient Density at Depth = 47 ft	1.0230	g/cc

AMBIENT VELOCITY DATA

Parameter	Value	Units
Profile	2-Point at constant depth	
X-Direction Velocity at Depth = 10 ft	-0.232	ft/sec
Z-Direction Velocity at Depth = 10 ft	-0.232	ft/sec
X-Direction Velocity at Depth = 40 ft	-0.116	ft/sec
Z-Direction Velocity at Depth = 40 ft	+0.116	ft/sec

DISPOSAL OPERATION DATA

Parameter	Value	Units
Location of Disposal Point from Top of Grid	9,660 ²	ft
Location of Disposal Point from Left Edge of Grid	11,200 ²	ft
Dumping Over Depression	0	

INPUT, EXECUTION AND OUTPUT

Parameter	Value	Units
Location of the Upper Left Corner of the Disposal Site - Distance from Top Edge	2,000	ft
Location of the Upper Left Corner of the Disposal Site - Distance from Left Edge	2,000	ft
Location of the Lower Right Corner of the Disposal Site - Distance from Top Edge	25,000	ft
Location of the Lower Right Corner of the Disposal Site - Distance from Left Edge	15,800	ft
Duration of Simulation	14,400	sec
Long Term Time Step	600	sec

COEFFICIENTS

Parameter	Keyword	Value
Settling Coefficient	BETA	0.000 ¹
Apparent Mass Coefficient	CM	1.000 ¹
Drag Coefficient	CD	0.500 ¹
Form Drag for Collapsing Cloud	CDRAG	1.000 ¹
Skin Friction for Collapsing Cloud	CFRIC	0.010 ¹
Drag for an Ellipsoidal Wedge	CD3	0.100 ¹
Drag for a Plate	CD4	1.000 ¹
Friction Between Cloud and Bottom	FRICTN	0.010 ¹
4/3 Law Horizontal Diffusion Dissipation Factor	ALAMDA	0.001 ¹
Unstratified Water Vertical Diffusion Coefficient	AKYO	Pritchard Expression
Cloud/Ambient Density Gradient Ratio	GAMA	

0.250¹

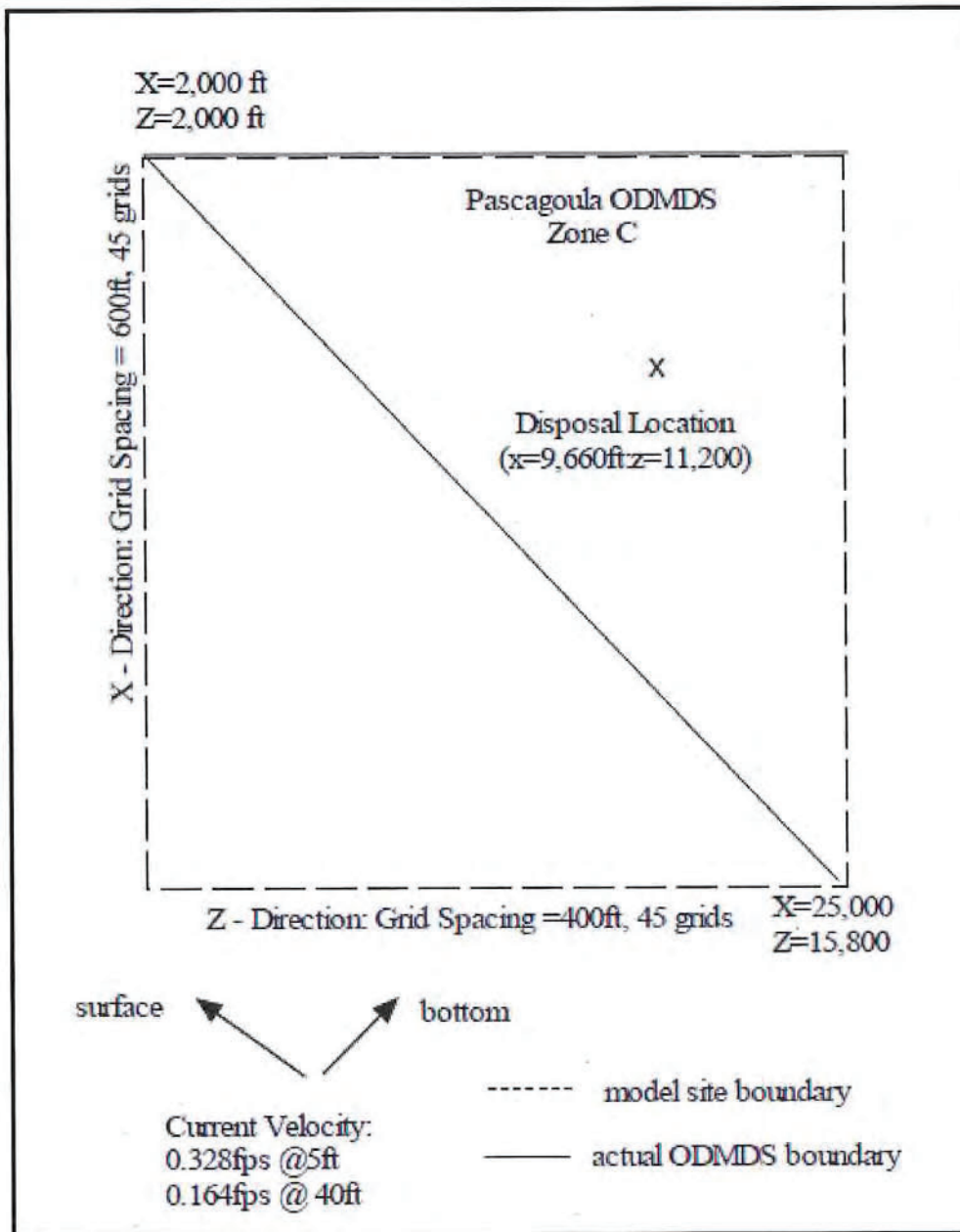
Turbulent Thermal Entrainment	ALPHAO	0.235 ¹
Entrainment in Collapse	ALPHAC	0.100 ¹
Stripping Factor	CSTRIP	0.003 ¹

¹Model default value

²Represents center of zone C. Dredged material requiring disposal in another location in order to meet the dilution criteria must be brought to the attention of EPA and the USACE.

Typical dilution achieved after 4 hours = 500:1

Plume does not reach site boundaries within 4 hours



Pensacola Offshore ODMDs Background Water Concentrations

Chemicals of concern	Background Concentrations (ug/L)
Arsenic	1.14
Cadmium	0.004 ¹
Chromium	0.21
Copper	0.229
Lead	0.041
Mercury	0.1 ¹
Nickel	0.64
Selenium	0.5 ¹
Silver	0.01 ¹
Zinc	0.59
Tributyltin (TBT)	0.025 ¹
Aldrin	0.001 ¹
Chlordane	0.001 ¹
DDT	0.0025 ¹
Dieldrin	0.001 ¹
alpha-Endosulfan	0.001 ¹
beta-Endosulfam	0.002 ¹
Endrin	0.002 ¹
gamma-BHC (Lindane)	0.0005 ¹
Heptachlor	0.00075 ¹
Heptachlor epoxide	0.001 ¹
Toxaphene	0.1 ¹
Pentachlorophenol	5.33 ¹

Values derived from Pensacola Offshore ODMDs Trend Assessment Study (2013)

¹ Analyte not detected. Value based on one half the reporting limit.

APPENDIX B

**GENERIC SPECIAL CONDITIONS FOR
MPRSA SECTION 103 PERMITS
PASCAGOULA ODMDS**

I. DISPOSAL OPERATIONS

A. For this permit, the term disposal operations shall mean: navigation of any vessel used in disposal operations, transportation of dredged material from the dredging site to the Pascagoula ODMDS, proper disposal of dredged material at the disposal area within the Pascagoula ODMDS, and transportation of the hopper dredge or disposal barge or scow back to the dredging site.

B. The boundary coordinates of the Pascagoula ODMDS is defined as the rectangle delineated by the following latitude/longitude and State Plane Coordinate system (zone 2301 Mississippi East) NAD 83 coordinates:

Latitude 30°12'06" N	Longitude 88°44'30" W
Latitude 30°11'42" N	Longitude 88°33'24" W
Latitude 30°08'30" N	Longitude 88°37'00" W
Latitude 30°08'18" N	Longitude 88°41'54" W

State Plane 2301 Mississippi East

30.2016667°	-088.7416667°
30.1950000°	-088.5566667°
30.1416667°	-088.6166667°
30.1383333°	-088.6983333°

C. No more than [NUMBER] cubic yards of dredged material excavated at the location defined in [REFERENCE LOCATION IN PERMIT] are authorized for disposal at the Pascagoula ODMDS. The permittee agrees and understands that all dredged material will be placed in such a manner that its highest point will not exceed -25 feet MLLW.

D. The permittee shall use an electronic positioning system to navigate to and from the Pascagoula ODMDS. For this section of the permit, the electronic positioning system will be as per the DQM specifications. If the electronic positioning system fails or navigation problems are detected, all disposal operations shall cease until the failure or navigation problems are corrected.

E. The permittee shall certify the accuracy of the electronic positioning system proposed for use during disposal operations at the Pascagoula ODMDS. The certification shall be accomplished by providing current certification documentation from the National DQM Program for scow and hopper dredge instrumentation systems. The National DQM certification is valid for one year from the date of certification.

F. The permittee shall not allow any water or dredged material placed in a hopper dredge or disposal barge or scow to flow over the sides or leak from such vessels during transportation to the Pascagoula ODMDS. In addition, the permittee understands that no debris is to be placed in the Pascagoula ODMDS.

G. A disposal operations inspector and/or captain of any tug boat, hopper dredge or other vessel used to transport dredged material to the Pascagoula ODMDS shall insure compliance with disposal operation conditions defined in this permit.

1. If the disposal operations inspector or the captain detects a violation, he shall report the violation to the permittee immediately.

2. The permittee shall contact the U.S. Army Corps of Engineers (USACE), Mobile District's Regulatory Branch at (251) 690-2658 and EPA Region 4 at (404) 562-9395 to report the violation within twenty-four (24) hours after the violation occurs. A complete written explanation of any permit violation shall be included in the post-dredging report.

H. When dredged material is placed at the ODMDS, no portion of the hopper dredge, disposal barge, or scow shall be outside the boundaries of the Pascagoula ODMDS as defined in Special Condition B. Additionally, disposal shall occur within a specified disposal zone defined as [DEFINE COORDINATES AND SIZE OF DISPOSAL ZONE].

I. The permittee shall use an automated disposal verification system that is certified by the National DQM program to continuously track the horizontal location and draft condition of the disposal vessel (hopper dredge or disposal barge or scow) to and from the Pascagoula ODMDS. This real-time information is available on-line to the Mobile District and will be provided to the EPA Region 4 via an FTP site on a weekly basis.

J. The permittee shall conduct a bathymetric survey of the Pascagoula ODMDS within two months prior to project disposal and within 30 days following project completion.

1. The number and length of the survey transects shall be sufficient to encompass the Pascagoula ODMDS and a 1500-foot wide area around the site. Transects shall be spaced at 500-foot intervals or less.

2. Vertical accuracy of the survey shall be ± 0.5 feet. Horizontal location of the survey lines and depth sounding points will be determined by an automated positioning system utilizing either microwave line of sight system or differential global positioning system. The vertical datum shall be mean lower low water (mllw) and the horizontal datum shall use Mississippi State Plane or latitude and longitude coordinates (North American Datum 1983). State Plane coordinates shall be reported to the nearest 0.10- foot and latitude and longitude coordinates shall be reported as degrees and decimal minutes to the nearest 0.01 minutes.

K. The permittee has read and agrees to assure that they are in compliance with the requirements of the Pascagoula ODMDS Site Management and Monitoring Plan (SMMP).

II. REPORTING REQUIREMENTS

A. The permittee shall send USACE, Mobile District's Coastal Environment Team and EPA Region 4's Oceans, Wetlands and Streams Protection Branch (61 Forsyth Street, Atlanta, GA 30303) a notification of commencement of work at least thirty (30) days before initiation of any dredging operations authorized by this permit and referenced by the permit number. In addition, the permittee agrees to contact the U.S. Coast Guard (Marine Safety Office) at 251-441-5674 prior to disposing of any material in the ocean disposal site.

B. The permittee shall submit to USACE weekly disposal monitoring reports. These reports shall contain the information described in Special Condition I.1.

C. The permittee shall develop and send one (1) copy of the disposal summary report to the Mobile District's Regulatory Branch and one (1) copy of the disposal summary report to EPA Region 4 documenting compliance with all general and special conditions defined in this permit. The disposal summary report shall be sent within 90 days after completion of the disposal operations authorized by this permit. The disposal summary report shall include the following information:

1. The report shall indicate whether all general and special permit conditions were met. Any violations of the permit shall be explained in detail.

2. The disposal summary report shall include the following information: USACE permit number, actual start date and completion date of dredging and disposal operations, total cubic yards disposed at the Pascagoula ODMDS, locations of disposal events, and pre and post disposal bathymetric survey results (in hard and electronic formats).

III. PERMIT LIABILITY

A. The permittee shall be responsible for ensuring compliance with all conditions of this permit.

B. The permittee and all contractors or other third parties who perform an activity authorized by this permit on behalf of the permittee shall be separately liable for a civil penalty of up to \$50,000 for each violation of any term of this permit they commit alone or in concert with the permittee or other parties. This liability shall be individual, rather than joint and severable, and shall not be reduced in any fashion to reflect the liability assigned to and civil penalty assessed against the permittee or any other third party as defined in 33 U.S.C. Section 1415(a).

C. If the permittee or any contractor or other third party knowingly violates any term of this permit (either alone or in concert), the permittee, contractor or other party shall be individually liable for the criminal penalties set forth in 33 U.S.C. Section 1415(b).

APPENDIX C

**GENERIC CONTRACT LANGUAGE FOR USE OF
THE PASCAGOULA ODMDs**



SECTION 35 20 23.23

NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM
HOPPER DREDGE
4/30/15

PART 1 GENERAL

1.1 DESCRIPTION

The work under this contract requires use of the National Dredging Quality Management Program (DQM) to monitor the dredge's status at all times during the contract and manage data history.

This performance-based specification section identifies the minimum required output and precision and instrumentation requirements. The requirements may be satisfied using equipment and technical procedures selected by the Contractor.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office responsible for review of the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00, "SUBMITTAL PROCEDURES":

SD-01, Preconstruction Submittals

Dredge Plant Instrumentation Plan Revisions or Addendum; G, SAM-OP-J

SD-06, Test Reports

Data Appropriately Archived e-mail, section 3.2.10; G, *XXX-XX-X (enter local district)*

SD-07, Certificates

Letter of National Dredging Quality Management Program Certification; G,
XXX-XX-X (enter local district)

1.3 PAYMENT

No separate payment shall be made for installation, operation and maintenance of the DQM certified system as specified herein for the duration of the dredging operations; all

costs in connection therewith shall be considered a subsidiary obligation of the Contractor and covered under the contract unit prices for dredging in the bidding schedule.

1.4 NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM CERTIFICATION

The Contractor is required to have a current certification from the DQM for the hopper dredge instrumentation system to be used under this contract. Criteria for certification shall be based on the most recent specification posted on the DQM website (<http://dqm.usace.army.mil/Specifications/Index.aspx>). Compliance with these criteria shall be verified by annual on-site quality assurance (QA) checks conducted by DQM Support Center Data Acquisition and Analysis Team, and by periodic review of the transmitted data. DQM Certification is valid for one year from the date of the annual QA checks. Certification is contingent upon the system's ability to continuously meet the performance requirements as outlined in sections 3.3 and 3.5. If issues with data quality are not corrected within 48 hours, the system certification shall be revoked and additional QA checks by the Data Acquisition Team may be necessary.

Annual DQM Certification shall be based on:

- A series of QA checks as described in Section 3.4 " Compliance Quality Assurance Checks"
- Verification of data acquisition and transfer (Section 3.3)
- Review of the Dredge Plant Instrumentation Plan (DPIP) as described in Section 1.5

The dredging contractor shall have personnel who are familiar with the system instrumentation and who have the ability to recalibrate the sensors on site during the QA process. The dredging contractor shall coordinate pickup times and locations and provide transportation to and from any platform with a DQM system to team personnel in a timely manner. As a general rule, Data Acquisition and Analysis Team personnel will come with PPE consisting of hardhats, steel toe boots, and life jackets. If additional safety equipment is needed, such as eye protection, safety harnesses, work gloves or personal location beacons, these items shall be provided to the team while on site. It is the dredging contractor's obligation to inform the QA team if the location designated for the QA checks has any site specific safety concerns prior to their arrival on site.

The owner or operator of the dredge shall contact the DQM at DQM-AnnualQA@rpsgroup.com on an annual basis, or at least three weeks prior to certification expiration, to schedule QA checks for renewal. This notification is meant to make the Data Acquisition Team aware of a target date for the annual QA checks for the dredge. At least one week prior to the target date, the dredging contractor shall contact the Data Acquisition team and verbally coordinate a specific date and location. The contractor shall then follow-up this conversation with a written e-mail confirmation. The owner/operator shall coordinate the QA checks with all local authorities, including but not limited to, the local USACE contracting officer.

Re-certification is required for any yard work which produces modification to displacement (i.e. change in dredge lines, repositioning or repainting hull marks), modification to bin volume (change in bin dimensions or addition or subtraction of structure) or changes in

sensor type or location; these changes shall be reported in the sensor log section of the DPIIP. A system does not have to be transmitting data between jobs, however in order to retain its certification during this period, the system sensors or hardware should not be disconnected or removed from the dredge. If the system is powered down, calibration coefficients shall be retained.

1.5 DREDGE PLANT INSTRUMENTATION PLAN (DPIIP)

The Contractor shall have a digital copy of the DPIIP on file with the National DQM Support Center. The Contractor shall also maintain a copy of the DPIIP on the dredge while working on site which is easily accessible to government personnel at all times. This document shall describe the sensors used, configuration of the system, how sensor data will be collected, how quality control on the data will be performed, and how sensors/data reporting equipment will be calibrated and repaired if they fail. A description of computed dredge specific data and how the sensor data will be transmitted to the DQM Database will also be included. The Contractor shall submit to the DQM Support Center any addendum or modifications made to the plan, subsequent to its original submission, prior to start of work.

The DPIIP shall include the following as a minimum:

(DPIIP must have table of contents in the following order and tabs separating sections)

Cover Page Dredge Name
 Date
 Photo of plant

Table of Contents

New page Dredge Contacts
 Dredging Company
 • Dredge Point of Contact on-site
 • Phone Number
 • e-mail address

 Dredge Monitoring System Provider
 • Dredge Monitoring System Point of Contact
 • Telephone Number
 • e-mail address

New page Table of dredge characteristics
 • Dimensions of dredge
 • Dimensions of hopper
 • Method of disposal
 • Capacity
 • Minimum and maximum digging depth
 • Minimum and maximum drafts and displacements
 • RPM and velocity range
 • ID of suction and discharge pipes

New page

Sensor data collection method

- Any averaging
- Route from sensors to DQM computer
- Internet connection type and provider

Sensor descriptions, locations and calibration methods

- Positioning system
 - o Brand name, model and accuracy
 - o Any calculation done external to the instrumentation
 - o Sensor location with referenced dimensions
- Dredge heading instrumentation
 - o Brand name, model and accuracy
 - o Any calculation done external to the instrumentation
- Hull status
 - o Brand name, model and accuracy
 - o Any calculation done external to the instrumentation
 - o Sensor location with referenced dimensions
 - o Calibration procedure
- Draft
 - o Brand name, model and accuracy
 - o Any calculation done external to the instrumentation
 - o Sensor location with referenced dimensions
 - o Calibration procedure
- Ullage
 - o Brand name, model and accuracy
 - o Any calculation done external to the instrumentation
 - o Sensor location with referenced dimensions
 - o Calibration procedure
- Dragarm depths
 - o Brand name, model and accuracy
 - o Any calculation done external to the instrumentation
 - o Sensor location with referenced dimensions
 - o Calibration procedure
- Density
 - o Brand name, model and accuracy
 - o Any calculation done external to the instrumentation
 - o Sensor location with referenced dimensions including pipe diameter
 - o Calibration procedure
- Velocity
 - o Brand name, model and accuracy
 - o Any calculation done external to the instrumentation
 - o Sensor location with referenced dimensions including pipe diameter
 - o Calibration procedure
- Pump RPM
 - o Brand name, model and accuracy
 - o Any calculation done external to the instrumentation
 - o Sensor location with referenced dimensions
 - o Calibration procedure

- Pumpout (if instrumented)
 - o Brand name, model and accuracy
 - o Any calculation done external to the instrumentation
 - o Sensor location with referenced dimensions
 - o Calibration procedure

Calculated Parameters

- Displacement:
 - o Method used by Contractor to calculate displacement
 - o Tables listing (fresh and salt water) displacement as a function of draft in feet and tenths of feet
- Hopper Volume:
 - o Method used by Contractor to calculate hopper volume
 - o Table listing the hopper volume as a function of hopper ullage in feet and tenths of feet
 - o Description of datum for ullage sounding measurements
- Drag Head Position
 - o Method used by Contractor to calculate drag head position
- Load number
 - o Method used to increment load number

Quality Control

- Description of Contractors quality control process
- Log of sensor calibrations, repairs and modifications

Appendices

- Hydrostatic curves
- Certified Displacement and Volume Tables
- Legible Dimensioned Drawings of the Dredge with units in feet
 - o A typical plan of the dredge showing:
 - Overall dredge and hopper dimensions
 - Locations of required sensors referenced to uniform longitudinal and transverse reference points
 - Distance between the draft sensors
 - Distance between the ullage sensors
 - Dimensions of dragarm
 - o A profile view of the dredge showing:
 - Overall dredge and hopper dimensions
 - Distance between draft sensors and draftmarks
 - Locations of required sensors referenced to uniform vertical and longitudinal reference points
 - o Typical vessel cross section through the hopper
- Sensor manuals and certificates of calibration

Any changes to the computation methods shall be approved by the National Dredging Quality Management Program Support Center prior to their implementation.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 REQUIREMENTS FOR REPORTED DATA

The Contractor shall provide, operate and maintain all hardware and software to meet these specifications. The Contractor shall be responsible for replacement, repair and calibration of sensors and other necessary data acquisition equipment needed to supply the required data.

Repairs shall be completed within 48 hours of any sensor failure. Upon completion of a repair, replacement, installation, modification or calibration the Contractor shall notify the Contracting Office's Representative (COR). The COR may request re-calibration of sensors or other hardware components at any time during the contract as deemed necessary.

The Contractor shall keep a log of sensor repair, replacement, installation, modification and calibration in the dredge's onboard copy of the DPIP. The log shall contain a three-year history of sensor maintenance to include: the time of sensor failures (and subsequent repairs), the time and results of sensor calibrations, the time of sensor replacements, and the time that backup sensor systems are initiated to provide required data. It shall also contain the name of the person responsible for the sensor work.

Sensors installed shall be capable of collecting parameters within specified accuracies and resolutions indicated in the following subsections.

Reported sensor values for ullage, draft and draghead depth should represent a weighted average with the highest and lowest values not included in the calculated average for the given interval. This information should be documented in the DPIP sections that say "Calculations done external to the instrumentation".

3.1.1 Date and Time

The date and time shall be reported to the nearest second and referenced to UTC time based on a 24 hour format; mm/dd/yyyy hh:mm:ss. The reported time shall be the time reported by the GPS in the NMEA string.

3.1.2 Load Number

A load number shall document the end of a disposal event. Load numbering will begin at number 1 at the start of the contract, and will be incremented by 1 at the completion of each disposal event or emptying of the hopper. Whenever possible, the load number shall be calculated off of the sensors aboard the dredge, and shall be a mathematically repeatable routine. Efforts shall be made to include logic that avoids false load number increments while also not allowing the routine to miss any disposal event. If manual incrementing of the load number is in place, extra attention shall be paid to this value in the contractor's quality control process (section 3.5).

3.1.3 Horizontal Positioning

All locations shall be obtained using a Positioning System operating with a minimum accuracy level of 1 to 3 meters horizontal Circular Error Probable (CEP). Positions shall be reported as Latitude/Longitude WGS 84 in decimal degrees. West Longitude and South Latitude values are reported as negative.

3.1.3.1 Vessel Horizontal Positioning

Geographic coordinates of the vessel as indicated by the location of the GPS antenna.

3.1.3.2 Draghead Horizontal Positioning

Geographic coordinates of the heel on centerline of the draghead(s). Any offset calculations from the GPS antenna should be described in the DPIIP.

3.1.4 Hull status

Open/closed status of the hopper dredge, corresponding to the split/non-split condition of a split hull hopper dredge shall be monitored. For dredges with hopper doors, the status of a single door that is the first opened during normal disposal operations may be monitored. An "OPEN" value shall indicate the hopper door is open, or in the case of split hull dredges, the hull is split. A "CLOSED" value indicates the hopper doors are closed, or in the case of split hull dredges, the hull is not split. *For this contract, hull status shall register closed prior to leaving the disposal area.*

3.1.5 Dredge Course

Dredge course-over-ground (COG) shall be provided using industry standard equipment. The Contractor shall provide dredge course over ground to the nearest whole degree with values from 000 (true north) to 359 degrees referenced to a clockwise positive direction convention.

3.1.6 Dredge Speed

Dredge speed-over-ground shall be provided in knots using industry standard equipment with a minimum accuracy of 1 knot and resolution to the nearest 0.1 knot.

3.1.7 Dredge Heading

Dredge heading shall be provided using industry standard equipment. The dredge heading shall be accurate to within 5 degrees and reported to the nearest whole degree, with values from 000 (true north) to 359 degrees referenced to a clockwise positive direction convention.

3.1.8 Tide

Tide data shall be obtained using appropriate equipment to give the water level with an accuracy of ± 0.1 feet and a resolution of 0.01 feet. Tide values above project datum described in the dredging specification shall be entered with a positive sign, those below with a negative sign.

3.1.9 Draft

All reported draft measurements shall be in feet, tenths and hundredths with an accuracy of ± 0.1 foot relative to observed physical draft readings. The measurements shall be reported at a resolution of two decimal places (hundredths of a foot). Reported forward draft value shall be equal to the sum of the visual forward port and starboard draft mark readings divided by 2. Reported aft draft value shall be equal to the sum of the visual aft port and starboard draft mark readings divided by 2. Forward draft, aft draft and average draft will be reported. Sensors shall be placed at an optimum location on the vessel to be reflective of observed physical draft mark readings at any trim or list. Minimum accuracies are conditional to relatively calm water. The sensor value reported shall be an average of at least 10 samples per event, remove at least one maximum value and one minimum value, and average the minimum 8 remaining values. When average draft is calculated for the purpose of determining displacement, significant digits for average draft shall be maintained such that if forward draft was 0.15 and aft draft was 0.1 then the average draft would be 0.125.

3.1.10 Hopper Ullage Sounding

All reported ullage soundings shall be in feet, tenths and hundredths with an accuracy of ± 0.1 foot with respect to the combing, and be representative of the forward and aft extents of the hopper as close to centerline as is possible. The measurements shall be reported at a resolution of two decimal places (hundredths of a foot). Forward ullage and aft ullage soundings will be reported. Sensors should be mounted so as to avoid discharge flume turbulence, foam and any structure that could produce sidelobe errors. If sensors must be offset from centerline of the hopper they should be offset to opposite sides of the vessel. If more than one fore or one aft sensor is used, they shall be placed near the corners of the hopper and the average value of the fore sensors and the average value of the aft sensors shall be reported. The sensor value reported shall be an average of at least 10 samples per event, remove at least one maximum value and one minimum value, and average the minimum 8 remaining values. When average ullage is calculated for the purpose of determining hopper volume, significant digits for average ullage shall be maintained such that if forward ullage was 0.15 and aft ullage was 0.1 then the average ullage would be 0.125.

3.1.11 Hopper Volume

Hopper volume shall be reported in cubic yards, based on the most accurate method available for the dredge. The minimum standard of accuracy for hopper volume is interpolation from the certified hopper volume table, based on the average fore and aft ullage soundings.

3.1.12 Displacement

Dredge displacement shall be reported in long tons, based on the most accurate method available for the dredge. The minimum standard of accuracy for displacement is interpolation from the displacement table, based on the average draft. For this contract the density of water used to calculate displacement shall be 1027-1030 kg/cubic meter and shall be used for an additional interpolation between the fresh and salt water tables. *The water density used is project/location specific. 1000 kg/m³ (1g/cm³)- fresh water 1027 kg/m³ - 1030 kg/m³ (1.027g/cm³ - 1.03g/cm³)- salt water*

3.1.13 Empty Displacement

Empty displacement shall be reported in long tons, and shall be the lightship value of the dredge, or the weight of the dredge with no material in the hopper, adjusted for fuel and water consumption.

3.1.14 Draghead depths

Draghead depths shall be reported with an accuracy of ± 0.5 feet and a resolution to the nearest 0.1 feet as measured from the surface of the water with no tidal adjustments. Minimum accuracies are conditional to relatively calm water. The sensor value reported shall be an average of at least 10 samples per event, remove at least one maximum value and one minimum value, and average the minimum 8 remaining values.

3.1.15 Slurry Densities of Dragarms

A density metering device, calibrated according to the manufacturer's specifications, shall be used to record the slurry density of each dragarm to the nearest 0.0001 g/cc with an accuracy of ± 0.001 g/cc. If the manufacture does not specify a frequency of re-calibration, calibration shall be conducted prior to commencement of work.

3.1.16 Slurry Velocities of Dragarms

A flow metering device, calibrated according to the manufacturer's specifications, shall be used to record the slurry velocity of each dragarm to the nearest 0.0001 fps with an accuracy of ± 0.001 fps. If the manufacture does not specify a frequency of re-calibration, calibration shall be conducted prior to commencement of work. The slurry velocity shall be measured in the same pipeline inside diameter as that used for the slurry density measurement.

3.1.17 Pump RPM

Pump RPM shall be measured with the highest level of accuracy that is standard on the vessel operational displays, either at the bridge, at the drag tenders controls, or in the engine room. Dredges with multiple pumps per side shall report RPM for the pump that best describes the dredging process (typically the outboard pump). If requirements of section 3.1.19 are determined based on pump RPM, then that value shall be reported.

3.1.18 Sea Suction Valve for Dragarm

If sea suction can be taken to bypass suction through the draghead, the sea suction location and valve status will be reported. The status of the valve will change from "closed" to "open" when the valve starts to open and will register "closed" when the valve is fully closed. When applicable, the state of the latch will be reported as "true" or "false". The sea suction location shall be reported in a standard non-changing name string of no more than 20 characters. These field values will always occur in the XML string as a set. The DQM system can only accommodate up to 4 unique sea suction locations. Suggested options for the naming convention can be found in the Example dataset in section 3.2.9, "Data Format".

3.1.19 Pumpout

When the hopper dredge is being pumped out, a "True" value shall be reported; when it is not, a "False" value shall be reported. The only permissible values are "TRUE" and "FALSE".

3.2 NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM SYSTEM REQUIREMENTS

Contractors DQM system shall be capable of collecting, displaying, and transmitting information to the DQM Database. The applicable parameters from section 3.1 shall be recorded as events locally and continually transmitted to the DQM Database anytime an internet connection is available. The Dredge shall be equipped with a DQM computer system consisting of a computer, monitor, keyboard, mouse, data modem, UPS, and network hub. The computer system shall be a standalone system, exclusive to the DQM monitoring system, and will have USACE DQM software installed on it. If a hardware problem occurs, or if a part of the system is physically damaged, then the Contractor shall be responsible for repairing it within 48 hours of determination of the condition.

3.2.1 Computer Requirements

The Contractor shall provide a dedicated on-board computer for use by the Dredging Quality Management system. This computer shall run the Corps' software and receive data from the Contractor's data reporting interface. This computer must meet or exceed the following performance specifications:

CPU: Intel or AMD processor with a (non-overclocked)
clock speed of at least 3 gigahertz (GHz)

Hard drive: 250 gigabytes (GB); internal

RAM: 2 gigabytes

Ethernet adapter: 10 or 100 megabit (Mbit) internal network card with
an RJ-45 connector

- Video adapter: Must support resolution of 1024x768 at 16 bit color depth
- Keyboard: Standard 101-key
- Mouse: Standard 2-button mouse
- Monitor: 17 inch viewable display; must support 1024x768 resolution at 16 bit color depth
- CD-ROM drive: 16X read speed/8X write speed
- Ports: 2 free Serial ports with standard 9-pin connectors; 1 free USB port
- Other hardware: Category 5 (Cat-5) cable with standard RJ-45 plugs connecting the network adapter to the network hub; one spare cable

Contractor shall install a fully-licensed copy of Windows 7 Professional Operating System on the computer specified above. Contractor shall also install any necessary manufacturer-provided drivers for the installed hardware.

This computer shall be located and oriented to allow data entry and data viewing, as well as to provide access to data ports for connection of external hardware. Location and orientation shall be subject to Contracting Officer's Representative's approval.

3.2.2 Software

The DQM computer's primary function is to transmit data to the DQM shore side database. No other software which conflicts with this function shall be installed on this computer. The DQM computer will have the USACE provided DQMOBS (Dredge Quality Management Onboard Software) installed on it by DQM personnel along with USACE selected software for remote support and management.

3.2.3 Network Hub

The DQM computer shall communicate via IEEE 802.3 Ethernet and the TCP/IP networking protocol. The Contractor shall provide a network hub to allow the temporary addition of the Contracting Officer's representative's portable computer to the computer network. The hub shall provide a minimum of four RJ-45 ports that support Category 5 (Cat-5) cable with standard RJ-45 plugs connecting the network adapter to the network hub; one spare cable shall be available on site to plug into the network hub.

3.2.4 UPS

The Contractor shall supply an Uninterruptible Power Supply (UPS) for the computer and networking equipment. The UPS shall provide backup power at 1kVA for a minimum of 10 minutes. The UPS shall interface to the DQM computer to communicate UPS status. The

Contractor shall ensure that sufficient power outlets are available to run all specified equipment.

3.2.5 Internet Access

The Contractor shall maintain an internet connection capable of transmitting real time data to the DQM Server and supporting remote access, as well as enough additional band width to clear historically queued data when a connection is re-obtained. The telemetry system shall be always available and have connectivity in contract area. If connectivity is lost, unsent data shall be queued and transmitted upon restoration of connectivity. The Contractor shall acquire and install all necessary hardware and software to make the internet connection available for data transmission to the DQM web service. The hardware and software must be configured to allow the USACE DQM center remote access to this computer. Coordination between the dredging company's IT and DQM support may be required in order to configure remote access through any security, firewall, router, and telemetry systems. Telemetry systems must be capable of meeting these minimum reporting requirements in all operating conditions.

3.2.6 Data Routing Requirements

Onboard sensors shall continually monitor dredge conditions, operations and efficiency and route this information into the shipboard dredge-specific system computer (DSS) to assist in guiding dredge operations. Portions of this Contractor-collected information shall be routed to the DQM computer on a real-time basis. Standard sensor data shall be sent to the DQM computer via an RS-232 9600- or 19200-baud serial interface. The serial interface shall be configured as 8 bits no parity and no flow control.

3.2.7 Data Reporting Frequency

Data shall be logged as a series of events. Each event will consist of a data set containing dredge information as per section 3.1. Each set of measurements (i.e. time, position, etc...) will be considered an event. All required information in section 3.1 that are not an averaged variable (i.e. draft and ullage) shall be collected within one second of the reported time. A data string for an event shall be sent to the DQM computer every 6 to 12 seconds and this interval shall remain constant throughout the contract; data strings shall never be transmitted more frequently than once per every 5 seconds. Any averaged variable must be collected and computed within this sampling interval.

3.2.8 Data Format

Data shall be reported as an eXtensible Markup Language (W3C standard XML 1.0) document as indicated below. Line breaks and spaces are added for readability, but the carriage return, line feed character combination is only added to delineate records (HOPPER_DREDGING_DATA tag) for actual data transmission.

```
<?xml version="1.0"?>
<HOPPER_DREDGING_DATA version = "2.0">
  <DREDGE_NAME> string32 </DREDGE_NAME>
  <HOPPER_DATA_RECORD>
```



```

<DATE_TIME> time date string </DATE_TIME>
<CONTRACT_NUMBER> string32</CONTRACT_NUMBER>
<LOAD_NUMBER> integer string </LOAD_NUMBER>
<VESSEL_X coord_type = "LL"> floating point string </VESSEL_X>
<VESSEL_Y coord_type = "LL"> floating point string </VESSEL_Y>
<PORT_DRAG_X coord_type = "LL"> floating point string</PORT_DRAG_X>
<PORT_DRAG_Y coord_type = "LL"> floating point string</PORT_DRAG_Y>
<STBD_DRAG_X coord_type = "LL"> floating point string</STBD_DRAG_X>
<STBD_DRAG_Y coord_type = "LL"> floating point string</STBD_DRAG_Y>
<HULL_STATUS> OPEN/CLOSED string </HULL_STATUS>
<VESSEL_COURSE> floating point string <VESSEL_COURSE >
<VESSEL_SPEED> floating point string </VESSEL_SPEED>
<VESSEL_HEADING> floating point string </VESSEL_HEADING>
<TIDE> floating point string </TIDE>
<DRAFT_FORE> floating point string </DRAFT_FORE>
<DRAFT_AFT> floating point string </DRAFT_AFT>
<ULLAGE_FORE> floating point string </ULLAGE_FORE>
<ULLAGE_AFT> floating point string </ULLAGE_AFT>
<HOPPER_VOLUME> floating point string </HOPPER_VOLUME>
<DISPLACEMENT> floating point string </DISPLACEMENT>
<EMPTY_DISPLACEMENT> floating point string </EMPTY_DISPLACEMENT>
<DRAGHEAD_DEPTH_PORT> floating point string </DRAGHEAD_DEPTH_PORT>
<DRAGHEAD_DEPTH_STBD> floating point string </DRAGHEAD_DEPTH_STBD>
<PORT_DENSITY> floating point string </PORT_DENSITY>
<STBD_DENSITY> floating point string </STBD_DENSITY>
<PORT_VELOCITY> floating point string </PORT_VELOCITY>
<STBD_VELOCITY> floating point string </STBD_VELOCITY>
<PUMP_RPM_PORT> floating point string </PUMP_RPM_PORT>
<PUMP_RPM_STBD> floating point string </PUMP_RPM_STBD>
<VALVE_1_LOCATION> string32</VALVE_1_LOCATION>
<VALVE_1_STATUS>open/closed</VALVE_1_STATUS>
<VALVE_1_LATCHED>true/false</VALVE_1_LATCHED>
<VALVE_2_LOCATION> string32</VALVE_2_LOCATION>
<VALVE_2_STATUS>open/closed</VALVE_2_STATUS>
<VALVE_2_LATCHED>true/false</VALVE_2_LATCHED>
<VALVE_3_LOCATION> string32</VALVE_3_LOCATION>
<VALVE_3_STATUS>open/closed</VALVE_3_STATUS>
<VALVE_3_LATCHED>true/false</VALVE_3_LATCHED>
<VALVE_4_LOCATION> string32</VALVE_4_LOCATION>
<VALVE_4_STATUS>open/closed</VALVE_4_STATUS>
<VALVE_4_LATCHED>true/false</VALVE_4_LATCHED>
<PUMP_OUT_ON> true/false/unknown string </PUMP_OUT_ON>
</HOPPER_DATA_RECORD>

```

```

</HOPPER_DREDGING_DATA>

```

Carriage return – ASCII value 13

Line Feed – ASCII value 10

Example

```

<?xml version="1.0"?>
<HOPPER_DREDGING_DATA version = "2.0">
  <DREDGE_NAME>Essayons</DREDGE_NAME>
  <HOPPER_DATA_RECORD>
    <DATE_TIME>04/11/2002 13:12:05</DATE_TIME>
    <CONTRACT_NUMBER>GDSNWP-11-G-0001</CONTRACT_NUMBER>
  
```



```

<LOAD_NUMBER>102</LOAD_NUMBER>
<VESSEL_X coord_type = "LL">-80.123333</VESSEL_X>
<VESSEL_Y coord_type = "LL">10.123345</VESSEL_Y>
<PORT_DRAG_X coord_type = "LL">-80.1233371</PORT_DRAG_X >
<PORT_DRAG_Y coord_type = "LL">10.12335</PORT_DRAG_Y >
<STBD_DRAG_X coord_type = "LL">-80.123339</STBD_DRAG_X >
<STBD_DRAG_Y coord_type = "LL">10.123347</STBD_DRAG_Y >
<HULL_STATUS>CLOSED</HULL_STATUS>
<VESSEL_COURSE>258</VESSEL_COURSE>
<VESSEL_SPEED>3.4</VESSEL_SPEED>
<VESSEL_HEADING>302</VESSEL_HEADING>
<TIDE>-0.1</TIDE>
<DRAFT_FORE>10.05</DRAFT_FORE>
<DRAFT_AFT>15.13</DRAFT_AFT>
<ULLAGE_FORE>10.11</ULLAGE_FORE>
<ULLAGE_AFT>10.22</ULLAGE_AFT>
<HOPPER_VOLUME>2555.2</HOPPER_VOLUME>
<DISPLACEMENT>4444.1</DISPLACEMENT>
<EMPTY_DISPLACEMENT>2345.0</EMPTY_DISPLACEMENT>
<DRAGHEAD_DEPTH_PORT>55.10</DRAGHEAD_DEPTH_PORT>
<DRAGHEAD_DEPTH_STBD>53.21</DRAGHEAD_DEPTH_STBD>
<PORT_DENSITY>1.02</PORT_DENSITY>
<STBD_DENSITY>1.03</STBD_DENSITY>
<PORT_VELOCITY>22.1</PORT_VELOCITY>
<STBD_VELOCITY>23.3</STBD_VELOCITY>
<PUMP_RPM_PORT> 55 </PUMP_RPM_PORT>                <PUMP_RPM_STBD>
54 </PUMP_RPM_STBD>
<VALVE_1_LOCATION> Starboard Dragarm </VALVE_1_LOCATION>
<VALVE_1_STATUS>open</VALVE_1_STATUS>
<VALVE_1_LATCHED>true</VALVE_1_LATCHED>
<VALVE_2_LOCATION> Port Dragarm</VALVE_2_LOCATION>
<VALVE_2_STATUS> closed</VALVE_2_STATUS>
<VALVE_2_LATCHED>false</VALVE_2_LATCHED>
<VALVE_3_LOCATION>Port Sea Chest</VALVE_3_LOCATION>
<VALVE_3_STATUS> closed</VALVE_3_STATUS>
<VALVE_3_LATCHED>false</VALVE_3_LATCHED>
<VALVE_4_LOCATION>Starboard Sea Chest</VALVE_4_LOCATION>
<VALVE_4_STATUS>open </VALVE_4_STATUS>
<VALVE_4_LATCHED> false</VALVE_4_LATCHED>
<PUMP_OUT_ON>>false</PUMP_OUT_ON>
</HOPPER_DATA_RECORD>
</HOPPER_DREDGING_DATA>
<cr>
<lf>
<DREDGE_NAME>Essayons</DREDGE_NAME>
  <HOPPER_DATA_RECORD>
    <DATE_TIME>04/11/2002 13:12:10</DATE_TIME>
    <CONTRACT_NUMBER>GDSNWP-11-G-0001</CONTRACT_NUMBER>

```

```

<LOAD_NUMBER>102</LOAD_NUMBER>
<VESSEL_X coord_type = "LL">-80.123334</VESSEL_X>
<VESSEL_Y coord_type = "LL">10.123346</VESSEL_Y>
<PORT_DRAG_X coord_type = "LL">-80.1233372</PORT_DRAG_X >
<PORT_DRAG_Y coord_type = "LL">10.12336</PORT_DRAG_Y >
<STBD_DRAG_X coord_type = "LL">-80.123340</STBD_DRAG_X >
<STBD_DRAG_Y coord_type = "LL">10.123348</STBD_DRAG_Y >
<HULL_STATUS>CLOSED</HULL_STATUS>
<VESSEL_COURSE>259</VESSEL_COURSE>
<VESSEL_SPEED>3.5</VESSEL_SPEED>
<VESSEL_HEADING>300</VESSEL_HEADING>
<TIDE>-0.1</TIDE>
<DRAFT_FORE>10.00</DRAFT_FORE>
<DRAFT_AFT>15.15</DRAFT_AFT>
<ULLAGE_FORE>10.15</ULLAGE_FORE>
<ULLAGE_AFT>10.20</ULLAGE_AFT>
<HOPPER_VOLUME>2555.5</HOPPER_VOLUME>
<DISPLACEMENT>4444.0</DISPLACEMENT>
<EMPTY_DISPLACEMENT>2345.0</EMPTY_DISPLACEMENT>
<DRAGHEAD_DEPTH_PORT>55.15</DRAGHEAD_DEPTH_PORT>
<DRAGHEAD_DEPTH_STBD>53.19</DRAGHEAD_DEPTH_STBD>
<PORT_DENSITY>1.00</PORT_DENSITY>
<STBD_DENSITY>1.01</STBD_DENSITY>
<PORT_VELOCITY>22.5</PORT_VELOCITY>
<STBD_VELOCITY>23.3</STBD_VELOCITY>
<PUMP_RPM_PORT> 55 </PUMP_RPM_PORT>           <PUMP_RPM_STBD>
54 </PUMP_RPM_STBD>
<VALVE_1_LOCATION> Starboard Dragarm </VALVE_1_LOCATION>
<VALVE_1_STATUS>open</VALVE_1_STATUS>
<VALVE_1_LATCHED>true</VALVE_1_LATCHED>
<VALVE_2_LOCATION> Port Dragarm</VALVE_2_LOCATION>
<VALVE_2_STATUS> closed</VALVE_2_STATUS>
<VALVE_2_LATCHED>>false</VALVE_2_LATCHED>
<VALVE_3_LOCATION>Port Sea Chest</VALVE_3_LOCATION>
<VALVE_3_STATUS> closed</VALVE_3_STATUS>
<VALVE_3_LATCHED>>false</VALVE_3_LATCHED>
<VALVE_4_LOCATION>Starboard Sea Chest</VALVE_4_LOCATION>
<VALVE_4_STATUS>open </VALVE_4_STATUS>
<VALVE_4_LATCHED> false</VALVE_4_LATCHED>
<PUMP_OUT_ON>>false</PUMP_OUT_ON>
</HOPPER_DATA_RECORD>
</HOPPER_DREDGING_DATA>
<cr>
<lf>

```


3.2.9 Data Reporting

The system shall transmit correctly formatted event data XML strings to the DQM Database continuously from mobilization until the last USACE post-dredging survey has been accepted. If the internet connection (section 3.2.6) is non-operable, manual backups from the dredge computer of the XML data string which would have been transmitted to the DQM computer over the serial connection shall be performed for each day the device is inoperable and submitted to the DQM center within 48 hours. This submission does not replace the requirement of correcting the issue affecting automatic transmission of data. In the event of data transfer, transmission, or hardware failure; a manually recorded disposal log shall be maintained. It shall consist of a series of events. These events are: start of dredging, end of dredging, pre-disposal and post-disposal events. Each event shall include: time stamp (GMT), position (Latitude and Longitude WGS84), draft, ullage, volume and displacement. Disposal logs shall be submitted on a daily basis to the Contracting Officer's Representative during the time when the system is not operational.

3.2.10 Contractor Data Backup

The Contractor shall maintain an archive of all data sent to the DQM computer during the dredging contract. The COR may require, at no increase in the contract price, that the Contractor provide a copy of these data covering specified time periods. The data shall be provided in the XML format which would have been transmitted to the DQM computer. There shall be no line breaks between the parameters; each record string shall be on separate line. Naming convention for the files shall be <dredgename>_<StartYYYYMMddhhmmss>_<EndYYYYMMddhhmmss>.txt . Data submission shall be via storage medium acceptable to the COR.

At the end of the dredging contract, the Contractor shall contact the National DQM Support Center prior to discarding the data to ensure it has been appropriately archived. The Contractor shall record in a separate section at the end of the dredge's on-board copy of the DPIIP the following information:

- a. Person who made the call
- b. The date of the call
- c. The DQM representative who gave permission to discard

The same day of the phone call and prior to discarding the data, the Contractor shall submit a "Data Appropriately Archived e-mail" to the local districts Contracting Officer's Representative with the above information, and Cc: the DQM Support Center representative providing permission. In addition to the above information, also include in the e-mail:

- d. Project name and contract number
- e. Dredge start and end dates
- f. Name of hopper dredge

3.3 PERFORMANCE REQUIREMENTS

The Contractor's DQM system shall be fully operational at the start of dredging operations and fully certified prior to moving dredge material on the contract (see Section 1.4, National Dredging Quality Management Program Certification). To meet contract requirements for operability, in addition to certification, the Contractor's system shall provide a data string with values for all parameters while operating, as described within the specifications. Additionally, all hardware shall be compliant with hardware requirements (Section 3.2). Quality data strings are considered to be those providing values for all parameters reported when operating according to the specification. Repairs necessary to restore data return compliance shall be made within 48 hours. If the Contractor fails to report required data within the specified time window for dredge measurements (see Sections 3.2.7 "Data Measurement Frequency" and 3.2.9 "Data Reporting"); the system will be declared not fully operational, and the Contractor will be assessed liquidated damages equivalent to the additional oversight hours that would be required for Corps personnel to be on site from the first full day after the system is deemed not operational through to the time when the system is returned to fully operational status. For this contract, the liquidated damages shall be \$ 1,433 per day. *(A spread sheet of how to calculate this is available at the DQM support center; this is NOT just the DQM day rate)*

3.4 COMPLIANCE QUALITY ASSURANCE CHECKS

Quality assurance checks are required prior to the commencement of dredging, and at the discretion of a COR periodically throughout the duration of the contract. Detailed instructions for performing these checks and a spreadsheet for recording the results are available at <http://dqm.usace.army.mil/Certifications/Index.aspx>. Incoming data shall be periodically reviewed to assure compliance with performance requirements outlined in section 3.3. In addition to making sure the data received meets the reporting requirements outlined in the sub sections under section 3.1, a more detailed description of some of the quality assurance methods are outlined below.

For annual instrumentation checks and compliance monitoring, the DQM Data Acquisition Team personnel attempt to be as flexible as possible in performing their checks so as not to delay work; however, in order to expedite matters as much as possible, it is necessary that they receive the support and cooperation of the local district and dredging contractor. The dredging contractor shall coordinate pickup times and locations and provide transportation to and from any platform with a DQM certified system in a timely manner. Calibrations to the sensors should already be performed before DQM personnel arrive on site.

3.4.1 Draft & Displacement Check

The COR shall periodically verify the accuracy of the fore and aft system reported draft values by comparing the vessel hull draft marks to the corresponding sensor readings indicated on the DQM screen. The vessel's hull draft reading shall be viewed from a contractor supplied auxiliary vessel circling the dredge. The COR shall review the difference between averaged drafts recorded by the instruments and those estimated from the draft marks to insure that the system is operating within the acceptable accuracy of

approximately ± 0.1 ft. in calm seas conditions. Reported draft values will be verified light, loaded, and at other intervals at the discretion of the COR. If sensors responsible for collecting draft values are not located on centerline, verification may be required under different trim and list conditions. If values are outside the acceptable range, the Contractor shall re-calibrate or repair system components as necessary. This check may be performed separately or as a part of the Water Load Test. For each system provided fore and aft draft, an average draft value will be calculated during the draft check, and the corresponding displacement will be verified longhand using the supplied draft/displacement tables.

3.4.2 Draghead Depth Check

The COR may require periodic calibration checks of the reported draghead depth using manual means such as tape measures or sounding lines to directly measure draghead depth. The Contractor shall furnish a steel tape, chain, or wire with clearly visible flags/tags placed at 1 foot increments within the operational range of the dragarm. These devices shall be capable of measuring the depth below the water surface to the lowest fixed point of each draghead (often the heel) with sufficient length to measure 5 feet more than the maximum project depth. Pressure sensors may be used to verify calibration of the draghead sensors only in areas where current flow past the vessel/dragarm cannot be reduced sufficiently to allow safe handling of manual measuring devices. Pressure sensors, used for this purpose shall be vented pressure gages and shall be subjected to an annual manufacturer's calibration. Prior to the dragarm depth check, the sensor shall be checked at a known depth, and may be required to be zeroed at this point according to manufacturer's specifications. Care shall be taken not to kink the cable or restrict the vent during deployment.

The COR shall review the draghead depth data to insure that the system is operating within acceptable accuracy, and may direct the Contractor to re-calibrate or repair system components as necessary. If a bubbler type system is used, weekly calibration of the draghead sensors is recommended, as they are sensitive to environmental conditions.

3.4.3 Ullage Sounding & Volume Check

The COR shall periodically check the reported hopper ullage sounding using a tape measure or other distance measuring device. The Contractor shall furnish a clearly readable weighted tape, marked in tenths of a foot, capable of measuring throughout the full range of hopper depth. The weight for this tape shall be a 6-inch diameter disk weighing between 2 and 3 pounds. The COR shall review the hopper dredge ullage sounding data to insure that the system is operating within acceptable accuracy (0.1 feet). Reported ullage soundings will be verified light, loaded, and at other intervals at the COR's discretion. Measurements can be taken from multiple locations along the combing or from sensor location at the COR's discretion. If values are outside the acceptable range, the Contractor shall re-calibrate or repair system components as necessary. This check may be performed separately or as a part of the Water Load Test. For each sensor provided fore and aft ullage sounding value, an average ullage sounding value will be calculated during the ullage sounding check, and the corresponding volume will be verified longhand using the supplied hopper volume tables.

3.4.4 Position Check

During the QA checks the reported position of the dredge shall be verified by comparison with readings from a handheld GPS receiver. Throughout the contract, the COR shall periodically take readings from an independent GPS to verify locations.

3.4.5 Water Load Test

Water Tests shall consist of pumping the hopper dredge out to its lowest level and then filling it to capacity with water, taking ullage and draft measurements at both levels to determine hopper dredge volume and displacement. The objective of the water test is to validate the dredge's reported displacement and hopper volumes. If the results of the water test indicate that the system is not operating within acceptable accuracy, the Contractor shall correct the deficiencies causing the error, and repeat the water test until the results are acceptable.

The Contractor shall provide a handheld refractometer with automatic temperature compensation to measure the hopper dredge water specific gravity during water tests. The refractometer shall be capable of measuring the hopper dredge water specific gravity with a resolution of 0.001 and minimum accuracy of ± 0.001 . The Contractor shall also provide a water-sampling device to retrieve a sufficient volume of water from various depths in the hopper dredge to accurately determine specific gravity with the refractometer, and a sufficient volume of deionized water for calibration of the device.

3.5 CONTRACTOR QUALITY CONTROL

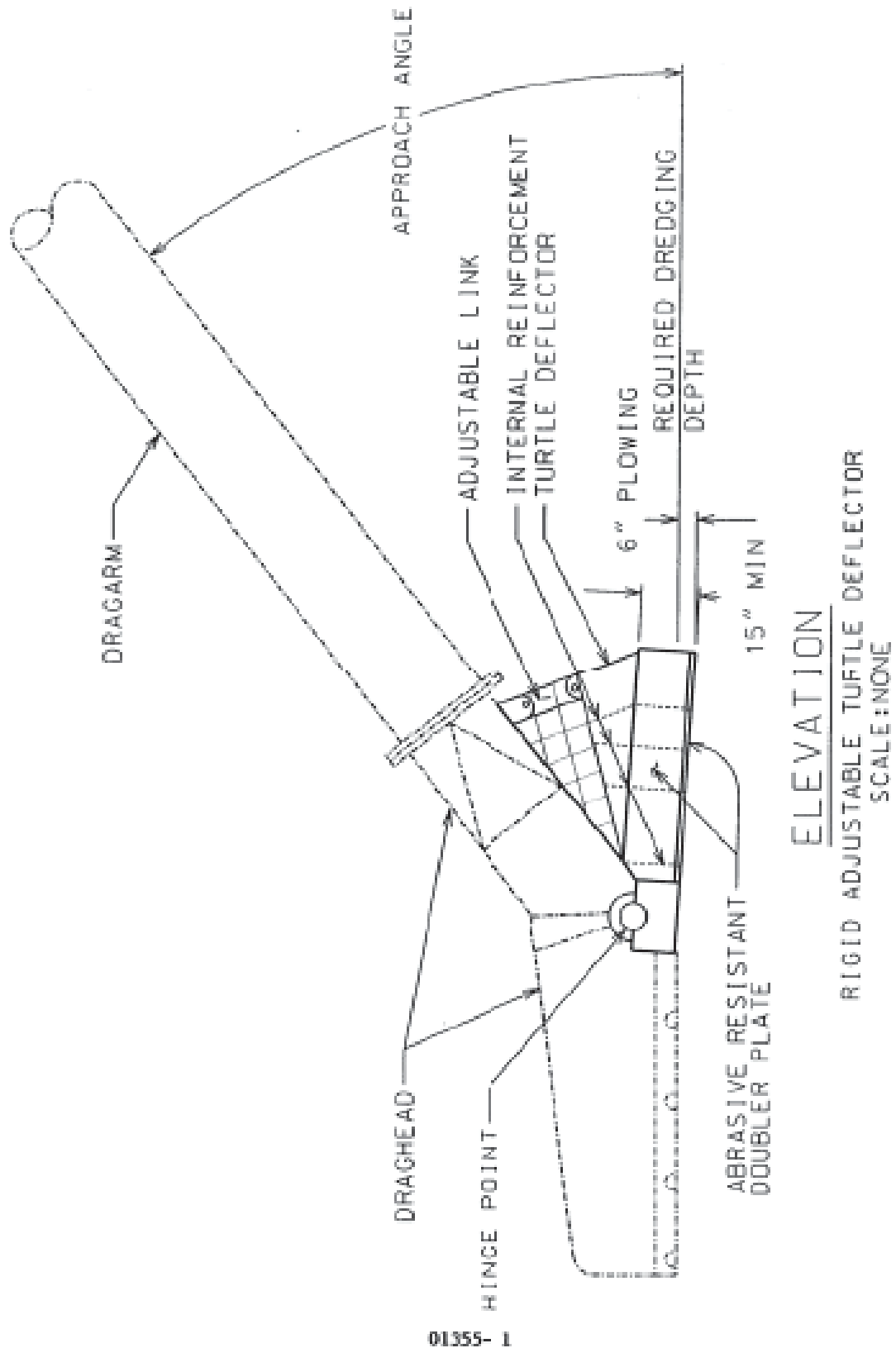
Dredging contractor shall designate a quality control systems manager (QCSM), who shall develop and maintain daily procedures to ensure the contractor's quality control (CQC) of the DQM system. These methods shall include a procedure by which data being collected is checked against known values, telemetry is verified to be functioning, and the DQM computer is verified to be on and the DQMOBS is running. The Contractor Quality Control Plan which describes these methods and procedures shall be included in the DPIP as per section 1.5 Table of Contents, item 27. This is the only section which shall be submitted to the local district and is a required submittal prior to the start of the contract. CQC Reports may be required at the discretion of the QAR daily. Annotations shall be made in the CQC Report documenting all actions taken on each day of work including all deficiencies found and corrective actions taken.

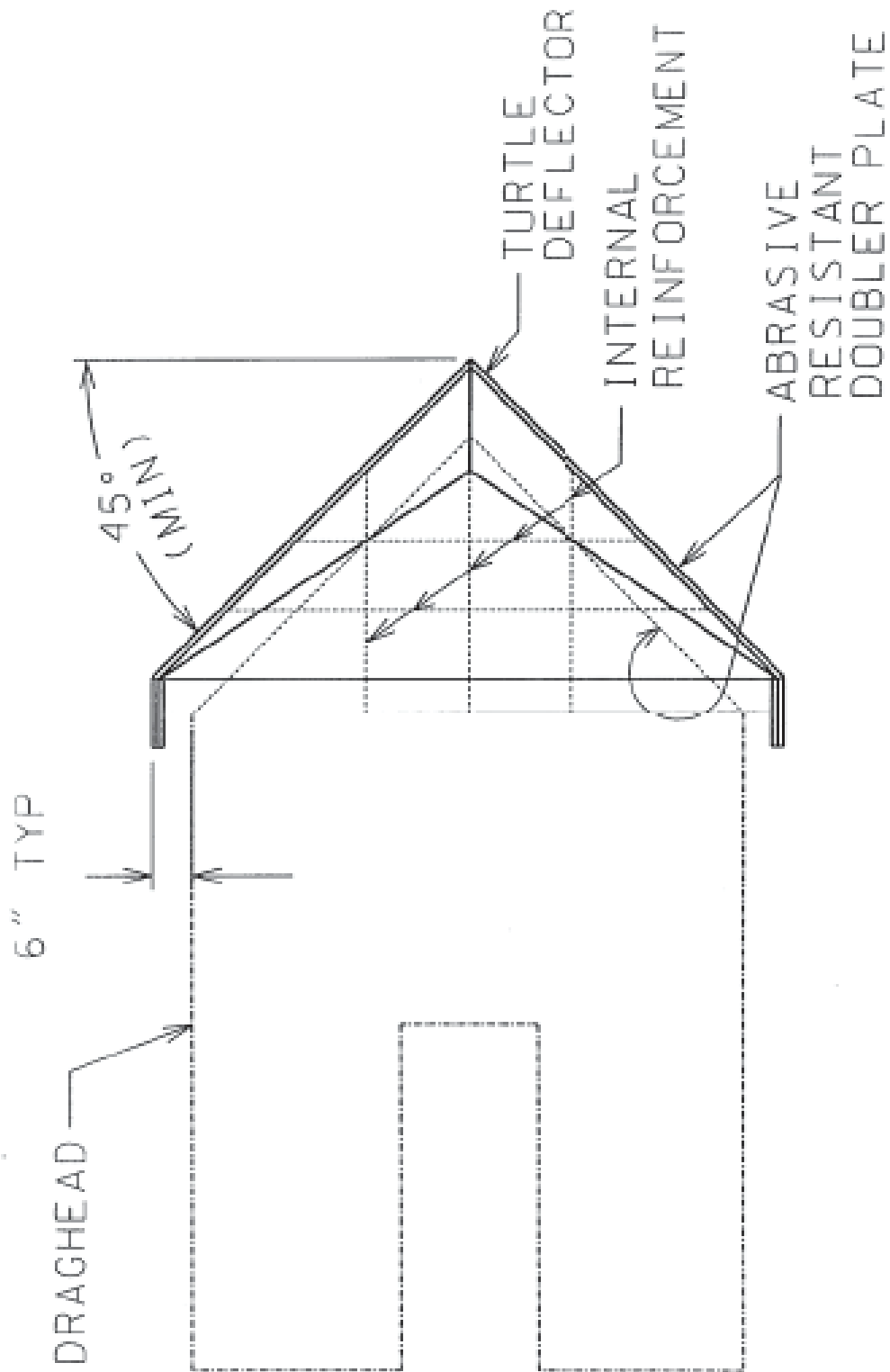
3.6 LIST OF ITEMS TO BE PROVIDED BY THE CONTRACTOR

DPIP	Sec 1.5 Dredge Plant Instrumentation Plan
DQM SYSTEM	
Sensor Instrumentation	Sec. 3.1 Specifications for Reported Data
DQM Computer	Sec. 3.2 National Dredging Quality Management System Requirements
DREDGE DATA	

Event documentation	Sec. 3.2.9 Data Reporting
Dredge Data Backups	Sec 3.2.10 Contractor Data Backups
QA EQUIPMENT ON DREDGE	
Ullage tape	Sec. 3.4.3 Ullage Sounding & Volume Check
Dragarm depth chain	Sec. 3.4.2 Draghead Depth Check
Refractometer –measuring in grams/cubic centimeter with a resolution of 0.001 and a minimum accuracy of ± 0.001 with calibration water	Sec. 3.4.5 Water Load Test
Water sampling device	Sec. 3.4.5 Water Load Test

Sea Turtle Deflector Specification





PLAN VIEW
RIGID TURTLE DEFLECTOR
SCALE: NONE

01355- 2

Turbidity Monitoring Report

TURBIDITY MONITORING REPORT
IRVINGTON SITE OFFICE
CONTRACT NUMBER:

DATE _____ REPORT NO. # _____

TIME OF DAY SAMPLE TAKEN: _____ hrs

WEATHER CONDITIONS: _____

DIRECTION OF WATER FLOW: _____ TIDAL STAGE: _____

WATER TEMP: _____ ° WIND SPEED _____ (MPH)

WAVE CONDITIONS (CALM, CHOPPY, ROUGH) _____

TURBIDITY MEASUREMENT TAKEN APPROX. _____ FT. FROM DREDGE

TURBIDITY MEASUREMENT TAKEN APPROX. _____ FT. FROM DISCHARGE

DISCHARGE IS APPROX _____ FT FROM DREDGE WITH AZIMUTH _____ °

DEPTH AT DREDGE: _____ FT DEPTH AT DISCHARGE: _____ FT

SURFACE TURBIDITY AT DREDGE _____ NTU

MID-DEPTH TURBIDITY AT DREDGE: _____ NTU

SURFACE TURBIDITY AT DISCHARGE _____ NTU D/A # 11, SECTION 1a

MID-DEPTH TURBIDITY AT DISCHARGE: _____ NTU

BACKGROUND TURBIDITY TAKEN APPROX _____ FT FROM DREDGE

AZIMUTH FROM DREDGE: _____ °

WATER DEPTH: _____ FT

SURFACE TURBIDITY: _____ NTU MID-DEPTH TURBIDITY: _____ NTU

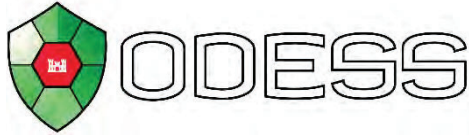
REMARKS (VISIBLE PLUME, ETC.) Sea too rough for samples _____

INSPECTOR: _____

Standard Manatee Conditions

STANDARD MANATEE CONSTRUCTION CONDITIONS
April 2003

- a. The lessor/grantee shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with manatees. All construction personnel are responsible for observing water-related activities for the presence of manatees.
- b. The lessor/grantee shall advise all construction personnel that there are civil and criminal penalties for harassing, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973.
- c. Siltation barriers shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entanglement. Barriers must not block manatee entry to, or exit from, essential habitat.
- d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will follow routes of deep water whenever possible.
- e. If manatees are seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure their protection. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. Operation of any equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment. Activities will not resume until the manatee has departed the project area of its own volition.
- f. Any collision with and/or injury to a manatee shall be reported immediately to Mr. Paul Necaise at (228) 493-6631 of the U.S. Fish and Wildlife Service in Jackson, Mississippi.
- g. Temporary signs concerning the manatees shall be posted prior to and during all construction/dredging activities. All signs are to be removed by the lessor/grantee upon completion of the project. A sign measuring at least 3 ft. by 4 ft. which reads *Common Manatee Habitat Area* will be posted in a location prominently visible to water-related construction crews. A second sign should be posted if vessels are associated with the construction, and should be placed visible to the vessel operator. The second sign should be at least 8' 6" by 11' which reads *Common Manatee Habitat. Life speed is required if operating a vessel in the construction area. All equipment must be shutdown if a manatee comes within 50 feet of operation. Any collision with and/or injury to a manatee shall be reported immediately to the U.S. Fish and Wildlife Service in Jackson, Mississippi (228-493-6631).*



Operations and Dredging Endangered Species System (ODESS) Guidance

This guidance should be incorporated into Section 01 57 20, "Environmental Protection," of the dredging specification based on the specific contract requirements and the discretion of USACE personnel. It is designed for both the dredging Contractor and the Endangered Species Observers responsible for monitoring the potential presence of sea turtles, sturgeon, and large whales.

MONITORING ENDANGERED SPECIES

Maintenance of US waterways for navigation is essential for national and international trade, job creation, and national security as well as for hydropower, flood protection, municipal water supply, agricultural irrigation, recreation, and regional development.

Typically, cutterhead pipeline, hopper, and mechanical dredges are used to maintain navigation depths in these channels and to construct new waterways. However, hopper dredging in the southeastern US potentially impacts five species of threatened or endangered sea turtles (Kemp's ridley, leatherback, loggerhead, green, hawksbill) and three species of sturgeon (shortnose, gulf, and atlantic).

To monitor these impacts and assist in the evaluation of these data, the US Army Corps of Engineers (USACE) Engineer Research and Development Center (ERDC) created the Sea Turtle Data Warehouse (STDW) in 1992. The database was designed as a central repository for current and historical data on impacted sea turtles.

In 2014 the US Army Corps of Engineers, National Dredging Quality Management Program (DQM), at the request of USACE Headquarters (HQUSACE), partnered with ERDC; the US Army Corps of Engineers, Mobile District, Spatial Data Branch (CESAM-OP-J) and Bowhead to develop a new and enhanced STDW database and website. This new Program is referred to as the Operations & Dredging Endangered Species System (ODESS) Program. The use of ODESS will facilitate enhanced monitoring and data collection, enable faster transmittal of information, and meet threatened and endangered species reporting requirements to the National Marine Fisheries Service (NMFS).



In order to monitor dredging impacts on threatened and endangered aquatic species, the dredge shall be equipped with a dedicated tablet computer running ODESS software to track and document the presence of sea turtle, sturgeon, and marine mammal species during dredging operations.

The ODESS system, which consists of a tablet computer with an Internet connection, shall be a standalone system, exclusive to other systems, and shall have USACE ODESS data collection and reporting software, referred to as the ODESS Field Collector (FC) tool, installed by USACE ODESS support personnel. In the event hardware or software problems prevent the storage or transmission of the collected data, paper copies of the latest ODESS forms and information shall be maintained and submitted to ODESS Support and the USACE Inspector or Contracting Officer according to the schedule outlined in the contract specifications.

OBSERVER QUALIFICATIONS AND TRAINING

Prior to the initiation of the project, Observers shall be familiar with the operation of the ODESS FC tool and proficient in its use so as to be able to prepare and transmit the results of their observations. ODESS system webinar training can be requested by contacting ODESS Support at ODESS@usace.army.mil or 1.877.840.8024.

Depending on the target audience (Observer, dredging Contractor, USACE District personnel, or other Federal agencies), ODESS training could, in addition to the webinar training, consist of demonstrating the steps involved in setting up the FC tool on the dredge, loading Observer-collected data and attachments into the FC tool, submitting these data and attachments to the ODESS database, and/or navigating around the ODESS public website to view and pull down data and/or decision-making information for later analysis.

OBSERVER DATA COLLECTION AND REPORTING

Observers shall record the results of the threatened and endangered species monitoring (described in Section 3.1.5.1, “Endangered Species Protection” of Section 01 57 20, “Environmental Protection,” of this specification) in the ODESS system by filling in the appropriate electronic forms on the ODESS FC tool and transmitting the data to the ODESS database. If there is an issue with recording data straight to the FC tool due the logistical nature of how the Observer is collecting this data, paper copies of these forms can be downloaded from the ODESS public website (<http://dqm.usace.army.mil/odess/#/download>) and later entered into the FC tool when the Observer has the best opportunity.

Start of the Project

Prior to the start of dredging, Observers shall verify that the ODESS FC tool is installed and operational on a dredge’s dedicated tablet computer and that a viable Internet connection is available. In addition, before a project is initiated, on the ODESS FC tool homepage Observers shall retrieve (or “pull down”) project-specific information from the ODESS database and perform a one-time setup of the dredging project by establishing the dredge name and time zone.

During the Project

The following forms shall be used in the FC tool and submitted to the ODESS database at the indicated reporting frequency.

Load Data Form

Observers shall complete the Load Data Form, including a description of screen contents and sea conditions, based on their observations. This form shall be completed and transmitted to the ODESS database for each load. At the end of each Observer shift, or when an Internet signal is available (not to exceed 24 hours from the start of the shift), the Observer shall submit all of his/her Load Data Forms. If this is not possible due to hardware or software problems, the Observer shall revert to email submission of the forms to ODESS@usace.army.mil.

Sea Turtle Incidental Data Form

If a sea turtle or its remains are identified during a load inspection, after the appropriate parties are notified (according to the requirements identified in the endangered species compliance section of the contract specification), a Sea Turtle Incidental Data Form shall be completed and submitted to the ODESS database as soon as possible (not to exceed 12 hours after the incident). Any applicable documentation (scanned copies of the paper Observer load and incident forms, species photos, etc.) shall be included as electronic attachments (.JPG or .PDF) and submitted using the FC tool.

Sturgeon Incidental Data Form

If a sturgeon or sturgeon parts are identified during a load, after the appropriate parties are notified (according to the requirements identified in the endangered species compliance section of the contract specification), a Sturgeon Incidental Data Form shall be completed and submitted to the ODESS database as soon as possible (not to exceed 12 hours after the incident). Any applicable documentation (scanned copies of the paper Observer load and incident forms, species photos, etc.) shall be included as electronic attachments (.JPG or .PDF) and submitted using the FC tool.

Marine Mammal Observation Data Form

If a large whale is observed, both the Dredge Load and the Marine Mammal Observation Data Forms shall be completed and submitted (not to exceed 12 hours after the observation) to ODESS Support at ODESS@usace.army.mil consistent with the endangered species compliance section of the contract specification (Section 3.1.5.1, "Endangered Species Protection" of Section 01 57 20, "Environmental Protection").

Observers are required to use the FC tool to send all incident attachments and any necessary documentation (i.e., pictures, etc). Do not send attachments via personal email unless the FC tool is unavailable. Also, the paper forms, if needed, should be used as either a "scratch pad" for data collection notes or used any time the FC tool becomes unavailable. The FC tool is the **primary** means of observer data collection and reporting **not** the paper forms. It is not required to scan, attach and submit a copy of the load and incident paper forms as part of the electronic incident record unless it is needed to support the electronic incident record (e.g., species diagram markups).

End of the Project

At the completion of project, the dredging Contractor shall coordinate with a designated USACE district QA/QC point of contact (POC) to determine whether electronic or paper copies of all applicable Observer paper forms will be submitted for the project. Information previously entered on the Post Hopper Dredging Checklist will be available on the ODESS public website (<http://dqm.usace.army.mil/odess>) for the dredging project.

HARDWARE REQUIREMENTS

The dredge shall be equipped and the Contractor is responsible for an ODESS hardware system consisting of a tablet computer, wireless keyboard, wireless mouse and data modem (or equivalent onboard internet connection) along with a proper tote bag and setup location for the afore mentioned hardware components. If a hardware problem occurs, or if a part of the system is physically damaged, the Contractor shall be responsible for repairing it within 48 hours of determination of the condition. The Contractor shall also keep ODESS personnel updated on the status of the onboard ODESS system and the progress of any repairs.

Computer

The Contractor shall provide a dedicated onboard tablet computer for use by the observers and shall have ODESS software installed on it prior to project initiation. This computer shall be located and oriented to allow data entry and data viewing. It must meet or exceed the following specifications:

Tablet Hardware Component	Specification
CPU	Intel or AMD processor with a (non-overclocked) clock speed of at least 2.4 gigahertz (GHz)
Hard Disk	128 gigabytes (GB); solid state internal storage
RAM	4 gigabytes (GB)
Network Adapter	Internal wired or wireless network hardware to match internet connection
Video Adapter	Support for 1024x768 resolution at 16-bit color depth
Display	>= 10.8 in.
Integrated Camera	2MP HD webcam (front); 8MP (back)
Ports	1 free USB port

Internet Access

The Contractor shall maintain an Internet connection capable of transmitting data to the ODESS database. The telemetry system shall always be available and have connectivity in the contract area. If connectivity is lost, unsent data shall be stored locally within the FC tool and transmitted upon restoration of connectivity. The Contractor shall acquire and install all necessary hardware and software to make the Internet connection available for data

transmission to the ODESS database. The hardware and software must be configured to allow remote access to the computer by USACE ODESS personnel. Coordination between the dredging company's IT and ODESS Support may be required in order to configure remote access through any security, firewall, router, and telemetry systems. Telemetry systems must be capable of meeting these minimum reporting requirements in all operating conditions.

SOFTWARE REQUIREMENTS

ODESS personnel shall be responsible for installing and testing all ODESS software tools on the dedicated onboard ODESS tablet computer. No other software which conflicts with the ODESS function of recording and transmitting data shall be installed on the tablet computer. The Contractor shall be responsible for installing and/or maintaining any necessary manufacturer-provided software for the installed hardware. If any software problem occurs, the Contractor shall contact ODESS Support at ODESS@usace.army.mil or 1.877.840.8024.

The ODESS tablet computer shall have the following minimum software installed in support of the ODESS system.

Software Component	Specification
Operating System	Windows 10, Contractor-installed
Browser**	Chrome, Internet Explorer, Contractor-installed
ODESS Software	Field Collector (FC) tool, USACE ODESS Support-installed
Remote Access Software	Team Viewer, USACE ODESS Support-installed
**Latest version recommended, Chrome is preferred.	



SECTION 35 20 23 23

NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM HOPPER DREDGE 11/17/2016

PART 1 GENERAL

1.1 DESCRIPTION

The work under this contract requires use of the National Dredging Quality Management Program (DQM) to monitor the dredge's status at all times during the contract and manage data history.

This performance-based specification section identifies the minimum required output and precision and instrumentation requirements. The requirements may be satisfied using equipment and technical procedures selected by the Contractor.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office responsible for review of the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00, "SUBMITTAL PROCEDURES":

SD-01, Preconstruction Submittals

Dredge Plant Instrumentation Plan Revisions or Addendum; G, SAM-OP-J

SD-06, Test Reports

Data Appropriately Archived e-mail, section 3.2.10; G, SAM-OP-J

SD-07, Certificates

Letter of National Dredging Quality Management Program Certification; G,
SAM-OP-GW

1.3 PAYMENT

No separate payment shall be made for installation, operation and maintenance of the DQM certified system as specified herein for the duration of the dredging

operations; all costs in connection therewith shall be considered a subsidiary obligation of the Contractor and covered under the contract unit prices for dredging in the bidding schedule.

1.4 NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM CERTIFICATION

The Contractor is required to have a current certification from the DQM for the hopper dredge instrumentation system to be used under this contract. Criteria for certification shall be based on the most recent specification posted on the DQM website (<http://dqm.usace.army.mil/Specifications/Index.aspx>). Compliance with these criteria shall be verified by annual on-site quality assurance (QA) checks conducted by DQM Support Center Data Acquisition and Analysis Team, and by periodic review of the transmitted data. DQM Certification is valid for one year from the date of the annual QA checks. Certification is contingent upon the system's ability to continuously meet the performance requirements as outlined in sections 3.3 and 3.5. If issues with data quality are not corrected within 48 hours, the system certification shall be revoked and additional QA checks by the Data Acquisition Team may be necessary.

Annual DQM Certification shall be based on:

- A series of QA checks as described in Section 3.4 "Compliance Quality Assurance Checks"
- Verification of data acquisition and transfer (Section 3.3)
- Review of the Dredge Plant Instrumentation Plan (DPIP) as described in Section 1.5

The dredging contractor shall have personnel who are familiar with the system instrumentation and who have the ability to recalibrate the sensors on site during the QA process. The dredging contractor shall coordinate pickup times and locations and provide transportation to and from any platform with a DQM system to team personnel in a timely manner. As a general rule, Data Acquisition and Analysis Team personnel will come with PPE consisting of hardhats, steel toe boots, and life jackets. If additional safety equipment is needed, such as eye protection, safety harnesses, work gloves or personal location beacons, these items shall be provided to the team while on site. It is the dredging contractor's obligation to inform the QA team if the location designated for the QA checks has any site specific safety concerns prior to their arrival on site.

The owner or operator of the dredge shall contact the DQM at DQM-AnnualQA@rpsgroup.com on an annual basis, or at least three weeks prior to certification expiration, to schedule QA checks for renewal. This notification is meant to make the Data Acquisition Team aware of a target date for the annual QA checks for the dredge. At least one week prior to the target date, the dredging contractor shall contact the Data Acquisition team and verbally coordinate a specific date and location. The contractor shall then follow-up this conversation

with a written e-mail confirmation. The owner/operator shall coordinate the QA checks with all local authorities, including but not limited to, the local USACE contracting officer.

Re-certification is required for any yard work which produces modification to displacement (i.e. change in dredge lines, repositioning or repainting hull marks), modification to bin volume (change in bin dimensions or addition or subtraction of structure) or changes in sensor type or location; these changes shall be reported in the sensor log section of the DPIP. A system does not have to be transmitting data between jobs, however in order to retain its certification during this period, the system sensors or hardware should not be disconnected or removed from the dredge. If the system is powered down, calibration coefficients shall be retained.

1.5 DREDGE PLANT INSTRUMENTATION PLAN (DPIP)

The Contractor shall have a digital copy of the DPIP on file with the National DQM Support Center. The Contractor shall also maintain a copy of the DPIP on the dredge while working on site which is easily accessible to government personnel at all times. This document shall describe the sensors used, configuration of the system, how sensor data will be collected, how quality control on the data will be performed, and how sensors/data reporting equipment will be calibrated and repaired if they fail. A description of computed dredge specific data and how the sensor data will be transmitted to the DQM Database will also be included. The Contractor shall submit to the DQM Support Center any addendum or modifications made to the plan, subsequent to its original submission, prior to start of work.

The DPIP shall include the following as a minimum:
(DPIP must have table of contents in the following order and tabs separating sections)

Cover Page	Dredge Name Date Photo of plant
------------	---------------------------------------

Table of Contents

New page	Dredge Contacts Dredging Company <ul style="list-style-type: none">• Dredge Point of Contact on-site• Phone Number• e-mail address Dredge Monitoring System Provider <ul style="list-style-type: none">• Dredge Monitoring System Point of Contact• Telephone Number• e-mail address
----------	--

New page

Table of dredge characteristics

- Dimensions of dredge
- Dimensions of hopper
- Method of disposal
- Capacity
- Minimum and maximum digging depth
- Minimum and maximum drafts and displacements
- RPM and velocity range
- ID of suction and discharge pipes

New page

Sensor data collection method

- Any averaging
- Route from sensors to DQM computer
- Internet connection type and provider

Sensor descriptions, locations and calibration methods

- Positioning system
 - Brand name, model and accuracy
 - Any calculation done external to the instrumentation
 - Sensor location with referenced dimensions
- Dredge heading instrumentation
 - Brand name, model and accuracy
 - Any calculation done external to the instrumentation
- Hull status
 - Brand name, model and accuracy
 - Any calculation done external to the instrumentation
 - Sensor location with referenced dimensions
 - Calibration procedure
- Draft
 - Brand name, model and accuracy
 - Any calculation done external to the instrumentation
 - Sensor location with referenced dimensions
 - Calibration procedure
- Ullage
 - Brand name, model and accuracy
 - Any calculation done external to the instrumentation
 - Sensor location with referenced dimensions
 - Calibration procedure
- Dragarm depths
 - Brand name, model and accuracy
 - Any calculation done external to the instrumentation
 - Sensor location with referenced dimensions
 - Calibration procedure
- Density

- Brand name, model and accuracy
- Any calculation done external to the instrumentation
- Sensor location with referenced dimensions including pipe diameter
- Calibration procedure
- Velocity
 - Brand name, model and accuracy
 - Any calculation done external to the instrumentation
 - Sensor location with referenced dimensions including pipe diameter
 - Calibration procedure
- Pump RPM
 - Brand name, model and accuracy
 - Any calculation done external to the instrumentation
 - Sensor location with referenced dimensions
 - Calibration procedure
- Pumpout (if instrumented)
 - Brand name, model and accuracy
 - Any calculation done external to the instrumentation
 - Sensor location with referenced dimensions
 - Calibration procedure

Calculated Parameters

- Displacement:
 - Method used by Contractor to calculate displacement
 - Tables listing (fresh and salt water) displacement as a function of draft in feet and tenths of feet
- Hopper Volume:
 - Method used by Contractor to calculate hopper volume
 - Table listing the hopper volume as a function of hopper ullage in feet and tenths of feet
 - Description of datum for ullage sounding measurements
- Drag Head Position
 - Method used by Contractor to calculate drag head position
- Load number
 - Method used to increment load number

Quality Control

- Description of Contractors quality control process
- Log of sensor calibrations, repairs and modifications

Appendices

- Hydrostatic curves
- Certified Displacement and Volume Tables
- Legible Dimensioned Drawings of the Dredge with units in feet
 - A typical plan of the dredge showing:

- Overall dredge and hopper dimensions
- Locations of required sensors referenced to uniform longitudinal and transverse reference points
- Distance between the draft sensors
- Distance between the ullage sensors
- Dimensions of dragarm
- A profile view of the dredge showing:
 - Overall dredge and hopper dimensions
 - Distance between draft sensors and draftmarks
 - Locations of required sensors referenced to uniform vertical and longitudinal reference points
- Typical vessel cross section through the hopper
- Sensor manuals and certificates of calibration

Any changes to the computation methods shall be approved by the National Dredging Quality Management Program Support Center prior to their implementation.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 REQUIREMENTS FOR REPORTED DATA

The Contractor shall provide, operate and maintain all hardware and software to meet these specifications. The Contractor shall be responsible for replacement, repair and calibration of sensors and other necessary data acquisition equipment needed to supply the required data.

Repairs shall be completed within 48 hours of any sensor failure. Upon completion of a repair, replacement, installation, modification or calibration the Contractor shall notify the Contracting Office's Representative (COR). The COR may request re-calibration of sensors or other hardware components at any time during the contract as deemed necessary.

The Contractor shall keep a log of sensor repair, replacement, installation, modification and calibration in the dredge's onboard copy of the DPIP. The log shall contain a three-year history of sensor maintenance to include: the time of sensor failures (and subsequent repairs), the time and results of sensor calibrations, the time of sensor replacements, and the time that backup sensor systems are initiated to provide required data. It shall also contain the name of the person responsible for the sensor work.

Sensors installed shall be capable of collecting parameters within specified accuracies and resolutions indicated in the following subsections.

Reported sensor values for ullage, draft and draghead depth should represent a weighted average with the highest and lowest values not included in the calculated average for the given interval. This information should be documented in the DPIP sections that say "Calculations done external to the instrumentation".

3.1.1 Date and Time

The date and time shall be reported to the nearest second and referenced to UTC time based on a 24 hour format; mm/dd/yyyy hh:mm:ss. The reported time shall be the time reported by the GPS in the NMEA string.

3.1.2 Load Number

A load number shall document the end of a disposal event. Load numbering will begin at number 1 at the start of the contract, and will be incremented by 1 at the completion of each disposal event or emptying of the hopper. Whenever possible, the load number shall be calculated off of the sensors aboard the dredge, and shall be a mathematically repeatable routine. Efforts shall be made to include logic that avoids false load number increments while also not allowing the routine to miss any disposal event. If manual incrementing of the load number is in place, extra attention shall be paid to this value in the contractor's quality control process (section 3.5).

3.1.3 Horizontal Positioning

All locations shall be obtained using a Positioning System operating with a minimum accuracy level of 1 to 3 meters horizontal Circular Error Probable (CEP). Positions shall be reported as Latitude/Longitude WGS 84 in decimal degrees. West Longitude and South Latitude values are reported as negative.

3.1.3.1 Vessel Horizontal Positioning

Geographic coordinates of the vessel as indicated by the location of the GPS antenna.

3.1.3.2 Draghead Horizontal Positioning

Geographic coordinates of the heel on centerline of the draghead(s). Any offset calculations from the GPS antenna should be described in the DPIP.

3.1.4 Hull status

Open/closed status of the hopper dredge, corresponding to the split/non-split condition of a split hull hopper dredge shall be monitored. For dredges with hopper doors, the status of a single door that is the first opened during normal

disposal operations may be monitored. An “OPEN” value shall indicate the hopper door is open, or in the case of split hull dredges, the hull is split. A “CLOSED” value indicates the hopper doors are closed, or in the case of split hull dredges, the hull is not split. *For this contract, hull status shall register closed prior to leaving the disposal area.*

3.1.5 Dredge Course

Dredge course-over-ground (COG) shall be provided using industry standard equipment. The Contractor shall provide dredge course over ground to the nearest whole degree with values from 000 (true north) to 359 degrees referenced to a clockwise positive direction convention.

3.1.6 Dredge Speed

Dredge speed-over-ground shall be provided in knots using industry standard equipment with a minimum accuracy of 1 knot and resolution to the nearest 0.1 knot.

3.1.7 Dredge Heading

Dredge heading shall be provided using industry standard equipment. The dredge heading shall be accurate to within 5 degrees and reported to the nearest whole degree, with values from 000 (true north) to 359 degrees referenced to a clockwise positive direction convention.

3.1.8 Tide

Tide data shall be obtained using appropriate equipment to give the water level with an accuracy of ± 0.1 feet and a resolution of 0.01 feet. Tide values above project datum described in the dredging specification shall be entered with a positive sign, those below with a negative sign.

3.1.9 Draft

All reported draft measurements shall be in feet, tenths and hundredths with an accuracy of ± 0.1 foot relative to observed physical draft readings. The measurements shall be reported at a resolution of two decimal places (hundredths of a foot). Reported forward draft value shall be equal to the sum of the visual forward port and starboard draft mark readings divided by 2. Reported aft draft value shall be equal to the sum of the visual aft port and starboard draft mark readings divided by 2. Forward draft, aft draft and average draft will be reported. Sensors shall be placed at an optimum location on the vessel to be reflective of observed physical draft mark readings at any trim or list. Minimum accuracies are conditional to relatively calm water. The sensor value reported shall be an average of at least 10 samples per event, remove at least one maximum value and

one minimum value, and average the minimum 8 remaining values. When average draft is calculated for the purpose of determining displacement, significant digits for average draft shall be maintained such that if forward draft was 0.15 and aft draft was 0.1 then the average draft would be 0.125.

3.1.10 Hopper Ullage Sounding

All reported ullage soundings shall be in feet, tenths and hundredths with an accuracy of ± 0.1 foot with respect to the combing, and be representative of the forward and aft extents of the hopper as close to centerline as is possible. The measurements shall be reported at a resolution of two decimal places (hundredths of a foot). Forward ullage and aft ullage soundings will be reported. Sensors should be mounted so as to avoid discharge flume turbulence, foam and any structure that could produce sidelobe errors. If sensors must be offset from centerline of the hopper they should be offset to opposite sides of the vessel. If more than one fore or one aft sensor is used, they shall be placed near the corners of the hopper and the average value of the fore sensors and the average value of the aft sensors shall be reported. The sensor value reported shall be an average of at least 10 samples per event, remove at least one maximum value and one minimum value, and average the minimum 8 remaining values. When average ullage is calculated for the purpose of determining hopper volume, significant digits for average ullage shall be maintained such that if forward ullage was 0.15 and aft ullage was 0.1 then the average ullage would be 0.125.

3.1.11 Hopper Volume

Hopper volume shall be reported in cubic yards, based on the most accurate method available for the dredge. The minimum standard of accuracy for hopper volume is interpolation from the certified hopper volume table, based on the average fore and aft ullage soundings.

3.1.12 Displacement

Dredge displacement shall be reported in long tons, based on the most accurate method available for the dredge. The minimum standard of accuracy for displacement is interpolation from the displacement table, based on the average draft. For this contract the density of water used to calculate displacement shall be 1027-1030 kg/cubic meter and shall be used for an additional interpolation between the fresh and salt water tables. *The water density used is project/location specific. 1000 kg/m³ (1g/cm³)- fresh water 1027 kg/m³ - 1030 kg/m³ (1.027g/cm³ - 1.03g/cm³)- salt water*

3.1.13 Empty Displacement

Empty displacement shall be reported in long tons, and shall be the lightship value of the dredge, or the weight of the dredge with no material in the hopper, adjusted for fuel and water consumption.

3.1.14 Draghead depths

Draghead depths shall be reported with an accuracy of ± 0.5 feet and a resolution to the nearest 0.1 feet as measured from the surface of the water with no tidal adjustments. Minimum accuracies are conditional to relatively calm water. The sensor value reported shall be an average of at least 10 samples per event, remove at least one maximum value and one minimum value, and average the minimum 8 remaining values.

3.1.15 Slurry Densities of Dragarms

A density metering device, calibrated according to the manufacturer's specifications, shall be used to record the slurry density of each dragarm to the nearest 0.0001 g/cc with an accuracy of ± 0.001 g/cc. If the manufacture does not specify a frequency of re-calibration, calibration shall be conducted prior to commencement of work.

3.1.16 Slurry Velocities of Dragarms

A flow metering device, calibrated according to the manufacturer's specifications, shall be used to record the slurry velocity of each dragarm to the nearest 0.0001 fps with an accuracy of ± 0.001 fps. If the manufacture does not specify a frequency of re-calibration, calibration shall be conducted prior to commencement of work. The slurry velocity shall be measured in the same pipeline inside diameter as that used for the slurry density measurement.

3.1.17 Pump RPM

Pump RPM shall be measured with the highest level of accuracy that is standard on the vessel operational displays, either at the bridge, at the drag tenders controls, or in the engine room. Dredges with multiple pumps per side shall report RPM for the pump that best describes the dredging process (typically the outboard pump). If requirements of section 3.1.19 are determined based on pump RPM, then that value shall be reported.

3.1.18 Sea Suction Valve for Dragarm

If sea suction can be taken to bypass suction through the draghead, the sea suction location and valve status will be reported. The status of the valve will change from "closed" to "open" when the valve starts to open and will register "closed" when the valve is fully closed. When applicable, the state of the latch will be reported as "true" or "false". The sea suction location shall be reported in a

standard non-changing name string of no more than 20 characters. These field values will always occur in the XML string as a set. The DQM system can only accommodate up to 4 unique sea suction locations. Suggested options for the naming convention can be found in the Example dataset in section 3.2.9, “Data Format”.

3.1.19 Pumpout

When the hopper dredge is being pumped out, a “True” value shall be reported; when it is not, a “False” value shall be reported. The only permissible values are “TRUE” and “FALSE”.

3.2 NATIONAL DREDGING QUALITY MANAGEMENT PROGRAM SYSTEM REQUIREMENTS

Contractors DQM system shall be capable of collecting, displaying, and transmitting information to the DQM Database. The applicable parameters from section 3.1 shall be recorded as events locally and continually transmitted to the DQM Database anytime an internet connection is available. The Dredge shall be equipped with a DQM computer system consisting of a computer, monitor, keyboard, mouse, data modem, UPS, and network hub. The computer system shall be a standalone system, exclusive to the DQM monitoring system, and will have USACE DQM software installed on it. If a hardware problem occurs, or if a part of the system is physically damaged, then the Contractor shall be responsible for repairing it within 48 hours of determination of the condition.

3.2.1 Computer Requirements

The Contractor shall provide a dedicated on-board computer for use by the Dredging Quality Management system. This computer shall run the Corps’ software and receive data from the Contractor’s data reporting interface. This computer must meet or exceed the following performance specifications:

CPU: Intel or AMD processor with a (non-overclocked) clock speed of at least 3 gigahertz (GHz)

Hard drive: 250 gigabytes (GB); internal

RAM: 2 gigabytes

Ethernet adapter: 10 or 100 megabit (Mbit) internal network card with an RJ-45 connector

Video adapter: Must support resolution of 1024x768 at 16 bit color depth

Keyboard: Standard 101-key

Mouse: Standard 2-button mouse

Monitor: 17 inch viewable display; must support 1024x768
resolution at 16 bit color depth

CD-ROM drive: 16X read speed/8X write speed

Ports: 2 free Serial ports with standard 9-pin connectors; 1 free
USB port

Other hardware: Category 5 (Cat-5) cable with standard RJ-45 plugs
connecting the network adapter to the network hub; one
spare cable

Contractor shall install a fully-licensed copy of Windows 7 Professional
Operating System on the computer specified above. Contractor shall also install
any necessary manufacturer-provided drivers for the installed hardware.

This computer shall be located and oriented to allow data entry and data viewing,
as well as to provide access to data ports for connection of external hardware.
Location and orientation shall be subject to Contracting Officer's
Representative's approval.

3.2.2 Software

The DQM computer's primary function is to transmit data to the DQM shore side
database. No other software which conflicts with this function shall be installed
on this computer. The DQM computer will have the USACE provided DQMOBS
(Dredge Quality Management Onboard Software) installed on it by DQM
personnel along with USACE selected software for remote support and
management.

3.2.3 Network Hub

The DQM computer shall communicate via IEEE 802.3 Ethernet and the TCP/IP
networking protocol. The Contractor shall provide a network hub to allow the
temporary addition of the Contracting Officer's representative's portable
computer to the computer network. The hub shall provide a minimum of four RJ-
45 ports that support Category 5 (Cat-5) cable with standard RJ-45 plugs
connecting the network adapter to the network hub; one spare cable shall be
available on site to plug into the network hub.

3.2.4 UPS

The Contractor shall supply an Uninterruptible Power Supply (UPS) for the
computer and networking equipment. The UPS shall provide backup power at

1kVA for a minimum of 10 minutes. The UPS shall interface to the DQM computer to communicate UPS status. The Contractor shall ensure that sufficient power outlets are available to run all specified equipment.

3.2.5 Internet Access

The Contractor shall maintain an internet connection capable of transmitting real time data to the DQM Server and supporting remote access, as well as enough additional band width to clear historically queued data when a connection is re-obtained. The telemetry system shall be always available and have connectivity in contract area. If connectivity is lost, unsent data shall be queued and transmitted upon restoration of connectivity. The Contractor shall acquire and install all necessary hardware and software to make the internet connection available for data transmission to the DQM web service. The hardware and software must be configured to allow the USACE DQM center remote access to this computer. Coordination between the dredging company's IT and DQM support may be required in order to configure remote access though any security, firewall, router, and telemetry systems. Telemetry systems must be capable of meeting these minimum reporting requirements in all operating conditions.

3.2.6 Data Routing Requirements

Onboard sensors shall continually monitor dredge conditions, operations and efficiency and route this information into the shipboard dredge-specific system computer (DSS) to assist in guiding dredge operations. Portions of this Contractor-collected information shall be routed to the DQM computer on a real-time basis. Standard sensor data shall be sent to the DQM computer via an RS-232 9600- or 19200-baud serial interface. The serial interface shall be configured as 8 bits no parity and no flow control.

3.2.7 Data Reporting Frequency

Data shall be logged as a series of events. Each event will consist of a data set containing dredge information as per section 3.1. Each set of measurements (i.e. time, position, etc...) will be considered an event. All required information in section 3.1 that are not an averaged variable (i.e. draft and ullage) shall be collected within one second of the reported time. A data string for an event shall be sent to the DQM computer every 6 to 12 seconds and this interval shall remain constant throughout the contract; data strings shall never be transmitted more frequently than once per every 5 seconds. Any averaged variable must be collected and computed within this sampling interval.

3.2.8 Data Format

Data shall be reported as an eXtensible Markup Language (W3C standard XML 1.0) document as indicated below. Line breaks and spaces are added for

readability, but the carriage return, line feed character combination is only added to delineate records (HOPPER_DREDGING_DATA tag) for actual data transmission.

```
<?xml version="1.0"?>
<HOPPER_DREDGING_DATA version = "2.0">
  <DREDGE_NAME> string32 </DREDGE_NAME>
  <HOPPER_DATA_RECORD>
    <DATE_TIME> time date string </DATE_TIME>
    <CONTRACT_NUMBER> string32 </CONTRACT_NUMBER>
    <LOAD_NUMBER> integer string </LOAD_NUMBER>
    <VESSEL_X coord_type = "LL"> floating point string </VESSEL_X>
    <VESSEL_Y coord_type = "LL"> floating point string </VESSEL_Y>
    <PORT_DRAG_X coord_type = "LL"> floating point string </PORT_DRAG_X>
    <PORT_DRAG_Y coord_type = "LL"> floating point string </PORT_DRAG_Y>
    <STBD_DRAG_X coord_type = "LL"> floating point string </STBD_DRAG_X>
    <STBD_DRAG_Y coord_type = "LL"> floating point string </STBD_DRAG_Y>
    <HULL_STATUS> OPEN/CLOSED string </HULL_STATUS>
    <VESSEL_COURSE> floating point string </VESSEL_COURSE>
    <VESSEL_SPEED> floating point string </VESSEL_SPEED>
    <VESSEL_HEADING> floating point string </VESSEL_HEADING>
    <TIDE> floating point string </TIDE>
    <DRAFT_FORE> floating point string </DRAFT_FORE>
    <DRAFT_AFT> floating point string </DRAFT_AFT>
    <ULLAGE_FORE> floating point string </ULLAGE_FORE>
    <ULLAGE_AFT> floating point string </ULLAGE_AFT>
    <HOPPER_VOLUME> floating point string </HOPPER_VOLUME>
    <DISPLACEMENT> floating point string </DISPLACEMENT>
    <EMPTY_DISPLACEMENT> floating point string </EMPTY_DISPLACEMENT>
    <DRAGHEAD_DEPTH_PORT> floating point string </DRAGHEAD_DEPTH_PORT>
    <DRAGHEAD_DEPTH_STBD> floating point string </DRAGHEAD_DEPTH_STBD>
    <PORT_DENSITY> floating point string </PORT_DENSITY>
    <STBD_DENSITY> floating point string </STBD_DENSITY>
    <PORT_VELOCITY> floating point string </PORT_VELOCITY>
    <STBD_VELOCITY> floating point string </STBD_VELOCITY>
    <PUMP_RPM_PORT> floating point string </PUMP_RPM_PORT>
    <PUMP_RPM_STBD> floating point string </PUMP_RPM_STBD>
    <VALVE_1_LOCATION> string32 </VALVE_1_LOCATION>
    <VALVE_1_STATUS> open/closed </VALVE_1_STATUS>
    <VALVE_1_LATCHED> true/false </VALVE_1_LATCHED>
    <VALVE_2_LOCATION> string32 </VALVE_2_LOCATION>
    <VALVE_2_STATUS> open/closed </VALVE_2_STATUS>
    <VALVE_2_LATCHED> true/false </VALVE_2_LATCHED>
    <VALVE_3_LOCATION> string32 </VALVE_3_LOCATION>
    <VALVE_3_STATUS> open/closed </VALVE_3_STATUS>
    <VALVE_3_LATCHED> true/false </VALVE_3_LATCHED>
    <VALVE_4_LOCATION> string32 </VALVE_4_LOCATION>
    <VALVE_4_STATUS> open/closed </VALVE_4_STATUS>
    <VALVE_4_LATCHED> true/false </VALVE_4_LATCHED>
    <PUMP_OUT_ON> true/false/unknown string </PUMP_OUT_ON>
  </HOPPER_DATA_RECORD>

</HOPPER_DREDGING_DATA>
Carriage return – ASCII value 13
Line Feed – ASCII value 10
```

Example

```
<?xml version="1.0"?>
<HOPPER_DREDGING_DATA version = "2.0">
  <DREDGE_NAME>Essayons</DREDGE_NAME>
  <HOPPER_DATA_RECORD>
    <DATE_TIME>04/11/2002 13:12:05</DATE_TIME>
    <CONTRACT_NUMBER>GDSNWP-11-G-0001</CONTRACT_NUMBER>
    <LOAD_NUMBER>102</LOAD_NUMBER>
    <VESSEL_X coord_type = "LL">-80.123333</VESSEL_X>
    <VESSEL_Y coord_type = "LL">10.123345</VESSEL_Y>
    <PORT_DRAG_X coord_type = "LL">-80.1233371</PORT_DRAG_X>
    <PORT_DRAG_Y coord_type = "LL">10.12335</PORT_DRAG_Y>
    <STBD_DRAG_X coord_type = "LL">-80.123339</STBD_DRAG_X>
    <STBD_DRAG_Y coord_type = "LL">10.123347</STBD_DRAG_Y>
    <HULL_STATUS>CLOSED</HULL_STATUS>
    <VESSEL_COURSE>258</VESSEL_COURSE>
    <VESSEL_SPEED>3.4</VESSEL_SPEED>
    <VESSEL_HEADING>302</VESSEL_HEADING>
    <TIDE>-0.1</TIDE>
    <DRAFT_FORE>10.05</DRAFT_FORE>
    <DRAFT_AFT>15.13</DRAFT_AFT>
    <ULLAGE_FORE>10.11</ULLAGE_FORE>
    <ULLAGE_AFT>10.22</ULLAGE_AFT>
    <HOPPER_VOLUME>2555.2</HOPPER_VOLUME>
    <DISPLACEMENT>4444.1</DISPLACEMENT>
    <EMPTY_DISPLACEMENT>2345.0</EMPTY_DISPLACEMENT>
    <DRAGHEAD_DEPTH_PORT>55.10</DRAGHEAD_DEPTH_PORT>
    <DRAGHEAD_DEPTH_STBD>53.21</DRAGHEAD_DEPTH_STBD>
    <PORT_DENSITY>1.02</PORT_DENSITY>
    <STBD_DENSITY>1.03</STBD_DENSITY>
    <PORT_VELOCITY>22.1</PORT_VELOCITY>
    <STBD_VELOCITY>23.3</STBD_VELOCITY>
    <PUMP_RPM_PORT> 55 </PUMP_RPM_PORT>
    <PUMP_RPM_STBD> 54 </PUMP_RPM_STBD>
    <VALVE_1_LOCATION> Starboard Dragarm </VALVE_1_LOCATION>
    <VALVE_1_STATUS>open</VALVE_1_STATUS>
    <VALVE_1_LATCHED>true</VALVE_1_LATCHED>
    <VALVE_2_LOCATION> Port Dragarm</VALVE_2_LOCATION>
    <VALVE_2_STATUS> closed</VALVE_2_STATUS>
    <VALVE_2_LATCHED>>false</VALVE_2_LATCHED>
    <VALVE_3_LOCATION>Port Sea Chest</VALVE_3_LOCATION>
    <VALVE_3_STATUS> closed</VALVE_3_STATUS>
    <VALVE_3_LATCHED>>false</VALVE_3_LATCHED>
    <VALVE_4_LOCATION>Starboard Sea Chest</VALVE_4_LOCATION>
```



```
<VALVE_4_STATUS>open </VALVE_4_STATUS>
<VALVE_4_LATCHED> false</VALVE_4_LATCHED>
<PUMP_OUT_ON>false</PUMP_OUT_ON>
</HOPPER_DATA_RECORD>
</HOPPER_DREDGING_DATA>
<cr>
<lf>
<DREDGE_NAME>Essayons</DREDGE_NAME>
  <HOPPER_DATA_RECORD>
    <DATE_TIME>04/11/2002 13:12:10</DATE_TIME>
    <CONTRACT_NUMBER>GDSNWP-11-G-0001</CONTRACT_NUMBER>
    <LOAD_NUMBER>102</LOAD_NUMBER>
    <VESSEL_X coord_type = "LL">-80.123334</VESSEL_X>
    <VESSEL_Y coord_type = "LL">10.123346</VESSEL_Y>
    <PORT_DRAG_X coord_type = "LL">-80.1233372</PORT_DRAG_X >
    <PORT_DRAG_Y coord_type = "LL">10.12336</PORT_DRAG_Y >
    <STBD_DRAG_X coord_type = "LL">-80.123340</STBD_DRAG_X >
    <STBD_DRAG_Y coord_type = "LL">10.123348</STBD_DRAG_Y >
    <HULL_STATUS>CLOSED</HULL_STATUS>
    <VESSEL_COURSE>259</VESSEL_COURSE>
    <VESSEL_SPEED>3.5</VESSEL_SPEED>
    <VESSEL_HEADING>300</VESSEL_HEADING>
    <TIDE>-0.1</TIDE>
    <DRAFT_FORE>10.00</DRAFT_FORE>
    <DRAFT_AFT>15.15</DRAFT_AFT>
    <ULLAGE_FORE>10.15</ULLAGE_FORE>
    <ULLAGE_AFT>10.20</ULLAGE_AFT>
    <HOPPER_VOLUME>2555.5</HOPPER_VOLUME>
    <DISPLACEMENT>4444.0</DISPLACEMENT>
    <EMPTY_DISPLACEMENT>2345.0</EMPTY_DISPLACEMENT>
    <DRAGHEAD_DEPTH_PORT>55.15</DRAGHEAD_DEPTH_PORT>
    <DRAGHEAD_DEPTH_STBD>53.19</DRAGHEAD_DEPTH_STBD>
    <PORT_DENSITY>1.00</PORT_DENSITY>
    <STBD_DENSITY>1.01</STBD_DENSITY>
    <PORT_VELOCITY>22.5</PORT_VELOCITY>
    <STBD_VELOCITY>23.3</STBD_VELOCITY>
    <PUMP_RPM_PORT> 55 </PUMP_RPM_PORT>
    <PUMP_RPM_STBD> 54 </PUMP_RPM_STBD>
    <VALVE_1_LOCATION> Starboard Dragarm </VALVE_1_LOCATION>
    <VALVE_1_STATUS>open</VALVE_1_STATUS>
    <VALVE_1_LATCHED>true</VALVE_1_LATCHED>
    <VALVE_2_LOCATION> Port Dragarm</VALVE_2_LOCATION>
    <VALVE_2_STATUS> closed</VALVE_2_STATUS>
    <VALVE_2_LATCHED>false</VALVE_2_LATCHED>
    <VALVE_3_LOCATION>Port Sea Chest</VALVE_3_LOCATION>
    <VALVE_3_STATUS> closed</VALVE_3_STATUS>
```

```
<VALVE_3_LATCHED>false</VALVE_3_LATCHED>
<VALVE_4_LOCATION>Starboard Sea Chest</VALVE_4_LOCATION>
<VALVE_4_STATUS>open </VALVE_4_STATUS>
<VALVE_4_LATCHED> false</VALVE_4_LATCHED>
<PUMP_OUT_ON>false</PUMP_OUT_ON>
</HOPPER_DATA_RECORD>
</HOPPER_DREDGING_DATA>
<cr>
<lf>
```

3.2.9 Data Reporting

The system shall transmit correctly formatted event data XML strings to the DQM Database continuously from mobilization until the last USACE post-dredging survey has been accepted. If the internet connection (section 3.2.6) is non-operable, manual backups from the dredge computer of the XML data string which would have been transmitted to the DQM computer over the serial connection shall be performed for each day the device is inoperable and submitted to the DQM center within 48 hours. This submission does not replace the requirement of correcting the issue affecting automatic transmission of data. In the event of data transfer, transmission, or hardware failure; a manually recorded disposal log shall be maintained. It shall consist of a series of events. These events are: start of dredging, end of dredging, pre-disposal and post-disposal events. Each event shall include: time stamp (GMT), position (Latitude and Longitude WGS84), draft, ullage, volume and displacement. Disposal logs shall be submitted on a daily basis to the Contracting Officer's Representative during the time when the system is not operational.

3.2.10 Contractor Data Backup

The Contractor shall maintain an archive of all data sent to the DQM computer during the dredging contract. The COR may require, at no increase in the contract price, that the Contractor provide a copy of these data covering specified time periods. The data shall be provided in the XML format which would have been transmitted to the DQM computer. There shall be no line breaks between the parameters; each record string shall be on separate line. Naming convention for the files shall be

<dredgename>_<StartYYYYMMddhhmmss>_<EndYYYYMMddhhmmss>.txt .
Data submission shall be via storage medium acceptable to the COR.

At the end of the dredging contract, the Contractor shall contact the National DQM Support Center prior to discarding the data to ensure it has been appropriately archived. The Contractor shall record in a separate section at the end of the dredge's on-board copy of the DPIIP the following information:

- a. Person who made the call
- b. The date of the call
- c. The DQM representative who gave permission to discard

The same day of the phone call and prior to discarding the data, the Contractor shall submit a "Data Appropriately Archived e-mail" to the local districts Contracting Officer's Representative with the above information, and Cc: the DQM Support Center representative providing permission. In addition to the above information, also include in the e-mail:

- d. Project name and contract number
- e. Dredge start and end dates
- f. Name of hopper dredge

3.3 PERFORMANCE REQUIREMENTS

The Contractor's DQM system shall be fully operational at the start of dredging operations and fully certified prior to moving dredge material on the contract (see Section 1.4, National Dredging Quality Management Program Certification). To meet contract requirements for operability, in addition to certification, the Contractor's system shall provide a data string with values for all parameters while operating, as described within the specifications. Additionally, all hardware shall be compliant with hardware requirements (Section 3.2). Quality data strings are considered to be those providing values for all parameters reported when operating according to the specification. Repairs necessary to restore data return compliance shall be made within 48 hours. Failure by the Contractor to report the required data within the specified time window for dredge measurements (see Sections 3.2.7, "Data Measurement Frequency," and 3.2.9, "Data Reporting") may result in withholding of up to 10% of the contract progress payment per clause 52.232-5.

3.4 COMPLIANCE QUALITY ASSURANCE CHECKS

Quality assurance checks are required prior to the commencement of dredging, and at the discretion of a COR periodically throughout the duration of the contract. Detailed instructions for performing these checks and a spreadsheet for recording the results are available at <http://dqm.usace.army.mil/Certifications/Index.aspx>. Incoming data shall be periodically reviewed to assure compliance with performance requirements outlined in section 3.3. In addition to making sure the data received meets the reporting requirements outlined in the sub sections under section 3.1, a more detailed description of some of the quality assurance methods are outlined below.

For annual instrumentation checks and compliance monitoring, the DQM Data Acquisition Team personnel attempt to be as flexible as possible in performing

their checks so as not to delay work; however, in order to expedite matters as much as possible, it is necessary that they receive the support and cooperation of the local district and dredging contractor. The dredging contractor shall coordinate pickup times and locations and provide transportation to and from any platform with a DQM certified system in a timely manner. Calibrations to the sensors should already be performed before DQM personnel arrive on site.

3.4.1 Draft & Displacement Check

The COR shall periodically verify the accuracy of the fore and aft system reported draft values by comparing the vessel hull draft marks to the corresponding sensor readings indicated on the DQM screen. The vessel's hull draft reading shall be viewed from a contractor supplied auxiliary vessel circling the dredge. The COR shall review the difference between averaged drafts recorded by the instruments and those estimated from the draft marks to insure that the system is operating within the acceptable accuracy of approximately ± 0.1 ft. in calm seas conditions. Reported draft values will be verified light, loaded, and at other intervals at the discretion of the COR. If sensors responsible for collecting draft values are not located on centerline, verification may be required under different trim and list conditions. If values are outside the acceptable range, the Contractor shall re-calibrate or repair system components as necessary. This check may be performed separately or as a part of the Water Load Test. For each system provided fore and aft draft, an average draft value will be calculated during the draft check, and the corresponding displacement will be verified longhand using the supplied draft/displacement tables.

3.4.2 Draghead Depth Check

The COR may require periodic calibration checks of the reported draghead depth using manual means such as tape measures or sounding lines to directly measure draghead depth. The Contractor shall furnish a steel tape, chain, or wire with clearly visible flags/tags placed at 1 foot increments within the operational range of the dragarm. These devices shall be capable of measuring the depth below the water surface to the lowest fixed point of each draghead (often the heel) with sufficient length to measure 5 feet more than the maximum project depth. Pressure sensors may be used to verify calibration of the draghead sensors only in areas where current flow past the vessel/dragarm cannot be reduced sufficiently to allow safe handling of manual measuring devices. Pressure sensors, used for this purpose shall be vented pressure gages and shall be subjected to an annual manufacturer's calibration. Prior to the dragarm depth check, the sensor shall be checked at a known depth, and may be required to be zeroed at this point according to manufacturer's specifications. Care shall be taken not to kink the cable or restrict the vent during deployment.

The COR shall review the draghead depth data to insure that the system is operating within acceptable accuracy, and may direct the Contractor to re-

calibrate or repair system components as necessary. If a bubbler type system is used, weekly calibration of the draghead sensors is recommended, as they are sensitive to environmental conditions.

3.4.3 Ullage Sounding & Volume Check

The COR shall periodically check the reported hopper ullage sounding using a tape measure or other distance measuring device. The Contractor shall furnish a clearly readable weighted tape, marked in tenths of a foot, capable of measuring throughout the full range of hopper depth. The weight for this tape shall be a 6-inch diameter disk weighing between 2 and 3 pounds. The COR shall review the hopper dredge ullage sounding data to insure that the system is operating within acceptable accuracy (0.1 feet). Reported ullage soundings will be verified light, loaded, and at other intervals at the COR's discretion. Measurements can be taken from multiple locations along the combing or from sensor location at the COR's discretion. If values are outside the acceptable range, the Contractor shall re-calibrate or repair system components as necessary. This check may be performed separately or as a part of the Water Load Test. For each sensor provided fore and aft ullage sounding value, an average ullage sounding value will be calculated during the ullage sounding check, and the corresponding volume will be verified longhand using the supplied hopper volume tables.

3.4.4 Position Check

During the QA checks the reported position of the dredge shall be verified by comparison with readings from a handheld GPS receiver. Throughout the contract, the COR shall periodically take readings from an independent GPS to verify locations.

3.4.5 Water Load Test

Water Tests shall consist of pumping the hopper dredge out to its lowest level and then filling it to capacity with water, taking ullage and draft measurements at both levels to determine hopper dredge volume and displacement. The objective of the water test is to validate the dredge's reported displacement and hopper volumes. If the results of the water test indicate that the system is not operating within acceptable accuracy, the Contractor shall correct the deficiencies causing the error, and repeat the water test until the results are acceptable.

The Contractor shall provide a handheld refractometer with automatic temperature compensation to measure the hopper dredge water specific gravity during water tests. The refractometer shall be capable of measuring the hopper dredge water specific gravity with a resolution of 0.001 and minimum accuracy of ± 0.001 . The Contractor shall also provide a water-sampling device to retrieve a sufficient volume of water from various depths in the hopper dredge to accurately

determine specific gravity with the refractometer, and a sufficient volume of deionized water for calibration of the device.

3.5 CONTRACTOR QUALITY CONTROL

Dredging contractor shall designate a quality control systems manager (QCSM), who shall develop and maintain daily procedures to ensure the contractor's quality control (CQC) of the DQM system. These methods shall include a procedure by which data being collected is checked against known values, telemetry is verified to be functioning, and the DQM computer is verified to be on and the DQMOBS is running. The Contractor Quality Control Plan which describes these methods and procedures shall be included in the DPIP as per section 1.5 Table of Contents, item 27. This is the only section which shall be submitted to the local district and is a required submittal prior to the start of the contract. CQC Reports may be required at the discretion of the QAR daily. Annotations shall be made in the CQC Report documenting all actions taken on each day of work including all deficiencies found and corrective actions taken.

3.6 LIST OF ITEMS TO BE PROVIDED BY THE CONTRACTOR

DPIP	Sec 1.5 Dredge Plant Instrumentation Plan
DQM SYSTEM	
Sensor Instrumentation	Sec. 3.1 Specifications for Reported Data
DQM Computer	Sec. 3.2 National Dredging Quality Management System Requirements
DREDGE DATA	
Event documentation	Sec. 3.2.9 Data Reporting
Dredge Data Backups	Sec 3.2.10 Contractor Data Backups
QA EQUIPMENT ON DREDGE	
Ullage tape	Sec. 3.4.3 Ullage Sounding & Volume Check
Dragarm depth chain	Sec. 3.4.2 Draghead Depth Check
Refractometer –measuring in grams/cubic centimeter with a resolution of 0.001 and a minimum accuracy of ± 0.001 with calibration water	Sec. 3.4.5 Water Load Test
Water sampling device	Sec. 3.4.5 Water Load Test