



# THE MEMPHIS DEPOT TENNESSEE

---

## ADMINISTRATIVE RECORD COVER SHEET

AR File Number 103



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

MAR 13 1995

4WD-FFB

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Eric Holladay  
Acting Commander  
Defense Distribution Depot Memphis  
2163 Airways Boulevard  
Memphis, Tennessee 38114-5297

Mr. E. Joseph Sanders  
Legal Services Director  
Tennessee Department of Environment and Conservation  
Office of General Counsel  
401 Church Street  
Nashville, Tennessee 37243-1548

SUBJ: Federal Facility Agreement;  
Defense Distribution Depot Memphis, Tennessee  
EPA I.D. Number: TN4 210 020 570

Gentlemen:

The Environmental Protection Agency (EPA) is pleased to provide you with an original copy of the signed and executed Federal Facilities Agreement (FFA) for the Defense Distribution Depot Memphis (DDMT), Tennessee. As required by Section XXXIV of the FFA, EPA hereby notifies you that the effective date of the DDMT FFA is March 6, 1995. This is the date that the last Party, EPA, signed the FFA. Your commitment to, and assistance in, developing and finalizing this Agreement is greatly appreciated.

If you or your staff have any questions or comments regarding this document or the contents of this letter, please do not hesitate to contact me at (404) 347-3016.

Sincerely,

A handwritten signature in cursive script, reading "Jon D. Johnston".

Jon D. Johnston, Chief  
Federal Facilities Branch

Enclosure

FEDERAL FACILITIES AGREEMENT

BETWEEN

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

AND

UNITED STATES DEFENSE LOGISTICS AGENCY

AT THE

DEFENSE DISTRIBUTION DEPOT MEMPHIS

MEMPHIS, TENNESSEE

TABLE OF CONTENTS

103 3

<u>SECTION</u>	<u>PAGE</u>
I. PARTIES	1
II. DETERMINATIONS	2
III. JURISDICTION	3
IV. DEFINITIONS	4
V. INSTALLATION DESCRIPTION	7
VI. FINDINGS OF FACT	8
VII. PURPOSE AND SCOPE OF AGREEMENT	10
VIII. ENFORCEABILITY	12
IX. STATUTORY COMPLIANCE/RCRA-CERCLA INTEGRATION	14
X. PERMITS	15
XI. RESERVATION OF RIGHTS	16
XII. OTHER CLAIMS	17
XIII. PROJECT MANAGERS	18
XIV. TECHNICAL REVIEW COMMITTEE	19
XV. CONSULTATION PROCESS FOR PRIMARY AND SECONDARY DOCUMENTS	20
XVI. ADMINISTRATIVE RECORD AND PUBLIC PARTICIPATION	26
XVII. RETENTION OF RECORDS	27
XVIII. PROGRESS REPORTS	27
XIX. ADDITIONAL WORK	28
XX. FIVE YEAR REVIEW	29
XXI. SCHEDULES FOR DOCUMENT SUBMITTAL	29
XXII. EXTENSIONS	32
XXIII. FORCE MAJEURE	33
XXIV. STIPULATED PENALTIES	34
XXV. RESOLUTION OF DISPUTES	35
XXVI. SAMPLING AND DATA QUALITY AND AVAILABILITY	39
XXVII. SITE ACCESS	40
XXVIII. REMOVALS AND CESSATION OF WORK	42
XXIX. CONFIDENTIAL INFORMATION	43
XXX. CONVEYANCE OF TITLE	44
XXXI. WRITTEN NOTIFICATION PROCEDURES	44

XXXII.	FUNDING	46
XXXIII.	RECOVERY OF EXPENSES	46
XXXIV.	EFFECTIVE DATE OF AGREEMENT	47
XXXV.	MODIFICATION OF AGREEMENT	47
XXXVI.	TERMINATION OF AGREEMENT	48
XXXVII.	TOTAL INTEGRATION	48
XXXIII.	AUTHORIZED SIGNATURES	49

APPENDIXPAGE

APPENDIX A	RCRA-CERCLA TERMINOLOGY	A-1
APPENDIX B	EXISTING STUDIES AND REPORTS	B-1
APPENDIX C	FY94 SITE MANAGEMENT PLAN	C-1
APPENDIX D	DEPARTMENT OF JUSTICE LETTER	D-1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IV  
AND THE  
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
AND THE  
UNITED STATES DEFENSE LOGISTICS AGENCY

103 5

IN THE MATTER OF: )  
)  
THE U.S. DEFENSE LOGISTICS AGENCY )  
) FEDERAL FACILITY  
) AGREEMENT UNDER  
) CERCLA SECTION 120  
) and  
DEFENSE DISTRIBUTION DEPOT MEMPHIS ) RCRA Sections  
TENNESSEE ) 3008(h) and 3004(u)  
) and  
) 3004(v)  
) Administrative  
) Docket Number:  
) TN4 210 020 570

Based on the information available to the Parties, as hereinafter defined, on the effective date of this FEDERAL FACILITY AGREEMENT (Agreement), and without trial or adjudication of any issues of fact or law, the Parties agree as follows:

I. PARTIES

The Parties to this Agreement are the United States of America through the Environmental Protection Agency (EPA), the State of Tennessee through the Tennessee Department of Environment and Conservation (TDEC), and the United States Department of Defense through the Defense Logistics Agency (DLA) at the Defense Distribution Depot, Memphis, Tennessee (DDMT). The terms of this Agreement, shall apply to and be binding upon the Parties, including EPA, TDEC and DLA and their respective agents, employees, response action contractors for the Site, as hereinafter defined, and all subsequent owners, operators and lessees of DDMT. The undersigned representative of each Party certifies that he or she is fully authorized to enter into the terms and conditions of this

Agreement and to legally bind such Party to this Agreement.

## II. DETERMINATIONS

103 6

The following constitutes a summary of the determinations relied upon by the Parties to establish their jurisdiction and authority to enter into this Agreement. None of these determinations shall be considered admissions by any person, related or unrelated to this Agreement, for purposes other than determining the basis of this Agreement or establishing the jurisdiction and authority of the Parties to enter into this Agreement.

A. The United States is a "person" as defined in Section 101(21) of CERCLA, 42 U.S.C. Section 9601(21).

B. DDMT is a "Facility" as defined by Section 101(9) of CERCLA, 42 U.S.C. Section 9601(9) T.C.A. Sections 68-212-201 et seq., T.C.A. 68-212-01 et seq. and by 10 U.S.C. Section 2701 et seq.

C. There has been a release or a substantial threat of a release of hazardous substances, pollutants or contaminants; or solid wastes; or hazardous wastes or hazardous constituents from the Facility within the meaning of Sections 101(14), 101(22), 101(33) and 104(a)(2) of CERCLA, 42 U.S.C. Sections 9601(14), 9601(22), 9601(33) and 9604(a)(2), and Sections 1004(27) and 1004(5) of RCRA, 42 U.S.C. Sections 6903(27) and 6903(5) and T.C.A. Sections 68-212-107, 68-212-206, 68-212-202(2) and 68-212-104(7) and the Tennessee Compilation of Rules and Regulations, Chapter 1200-1-11-.01(2)(a) and 1200-1-13-.01(1).

D. The actions provided for in this Agreement are consistent with the NCP.

E. The Work provided for in this Agreement is necessary to protect the public health or welfare or the environment.

F. The United States Department of the Army is the owner of the Facility. DLA is the operator of the Facility (DDMT) within the meaning of Section 101(20) of CERCLA, 42 U.S.C. Section 9601(20), and operates the Facility within the meaning of Section 107(a)(1) of CERCLA, 42 U.S.C. Section 9607(a)(1) and T.C.A. Section 68-212-202. DLA is the lead agency of the United States to manage the Defense Environmental Restoration Program (DERP) as it applies to the Facility.

G. This Agreement provides for the expeditious completion of all necessary response actions.

H. DLA is subject to, and shall comply with, CERCLA, the NCP, RCRA and applicable State Law in implementing this Agreement.

### III. JURISDICTION

Each Party is entering into this Agreement pursuant to the following authorities:

A. EPA Region IV, enters into those portions of this Agreement that relate to the response action process pursuant to Section 120(e)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. Section 9620(e)(1), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), Pub. L. 99-499 (hereinafter jointly referred to as CERCLA) and the Resource Conservation and Recovery Act (RCRA), Sections 6001, 3008(h) and 3004(u) and (v), 42 U.S.C. Sections 6961, 6928(h), 6924(u) and (v), as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA) (hereinafter jointly referred to as RCRA) and Executive Order 12580;

B. EPA enters into those portions of this Agreement that relate to response actions pursuant to Section 120(e)(2) of CERCLA, 42 U.S.C. Section 9620(e)(2), Sections 6001, 3008(h), and Sections 3004(u) and (v) of RCRA, 42 U.S.C. Sections 6961, 6928(h) and 42 U.S.C. Sections 6924(u) and (v) and Executive Order 12580;

C. DLA enters into those portions of this Agreement that relate to the response action process pursuant to Section 120(e) of CERCLA, 42 U.S.C. Section 9620(e), Sections 6001, 3008(h) and Sections 3004(u) and (v) of RCRA, 42 U.S.C. Sections 6961, 6928(h), 6924 (u) and (v), Executive Order 12580 and the Defense Environmental Restoration Program (DERP), 10 U.S.C. Section 2701 et seq.

D. DLA enters into those portions of this Agreement that relate to response actions for OUs and final response actions pursuant to Section 120(e)(2) of CERCLA, 42 U.S.C. Section 9620(e)(2), Sections 6001, 3008(h) and 3004(u) and (v) of RCRA, 42 U.S.C. Sections 6961, 6928(h) and 6924(u) and (v); Executive Order 12580, and the DERP; and

E. TDEC enters into this Agreement pursuant to Sections 120(f) and 121(f) of CERCLA, 42 U.S.C. Sections 9620(f) and 9621(f), and the Tennessee Code Annotated (T.C.A.) Sections 68-212-201 et seq. and T.C.A. 68-212-101 et seq.



## IV. DEFINITIONS

Except as noted below or otherwise explicitly stated, the definitions provided in CERCLA, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and RCRA shall control the meaning of the terms used in this Agreement. However, if any of the following terms are amended by revision of the NCP after the effective date of this Agreement, the revised NCP definition shall control the meaning of that term, as applicable. The revised definition shall be applied in accordance with any statutory or regulatory language on applicability specific to the amended or revised term. Also, for the purposes of this Agreement and the Work required herein, CERCLA terminology shall be used whenever possible in order to simplify the terminology. Appendix A to this Agreement identifies the RCRA counterparts for all CERCLA terms used.

A. Agreement shall mean this document and shall include all attachments to this document. All such attachments shall be appended to and made an integral and enforceable part of this document.

B. Applicable State Laws shall include, but not be limited to, all laws determined to be applicable or relevant and appropriate requirements as described in Section 121(d) of CERCLA, 42 U.S.C. Section 9621(d). It is recognized that in some instances in which this phrase is used, there may be no applicable State Laws.

C. Applicable or Relevant and Appropriate Requirement (ARAR) shall mean "legally applicable" or "relevant and appropriate" requirements, laws, standards, criteria or limitations as those terms are used in Section 121 of CERCLA, 42 U.S.C. Section 9621(d).

D. CERCLA shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. Sections 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, (SARA) Public Law 99-499.

E. CERFA shall mean the Community Environmental Response Facilitation Act of 1992 (Public Law 102-426) which amends CERCLA Section 120(h) to expedite the sale of federal land that is determined to be uncontaminated.

F. Comprehensive Site-Wide Operable Unit shall mean the OU which includes the entire Site, to be evaluated following the issuance of RODs for all other OUs at the Site. The purpose of this OU is to document and evaluate all risk which is anticipated to remain at the Site following implementation of the response

actions required by all preceding RODs and removal actions. The Comprehensive Site-Wide OU shall be used to determine whether the previously-selected response actions are cumulatively protective of human health and the environment, or whether additional response action is required to address this cumulative risk, as required by CERCLA, the NCP and applicable EPA policy and guidance.

G. Days shall mean calendar days, unless business days are specified. Any submittal that under the terms of this Agreement would be due on a Saturday, Sunday, or Federal or State of Tennessee holiday shall be due on the following business day.

H. Deadline shall mean the date on which EPA and TDEC must receive any Primary Documents under the terms of this Agreement and the Site Management Plan (SMP). Deadlines shall be subject to stipulated penalties.

I. DLA shall mean the Defense Logistics Agency for the United States of America, its successors and assigns, at the Defense Distribution Depot, Memphis, Tennessee (DDMT), its successors and assigns, including the U.S. Department of Defense to the extent necessary to effectuate the terms of the Agreement, including, but not limited to appropriations and Congressional reporting requirements. This definition is not intended to limit the liability of any tenant not a field activity of the Defense Logistics Agency which is a potentially responsible party for the purposes of Section 107(a) of CERCLA, 42 U.S.C. Section 9607 and/or T.C.A. Section 68-212-201, et seq. DLA shall be the lead agency responsible for implementing and completing all Work at the Site in accordance with the terms of this Agreement, CERCLA, the NCP, RCRA and applicable Tennessee law.

J. DoD shall mean the United States Department of Defense.

K. EPA shall mean the United States Environmental Protection Agency, its successors and assigns, and its duly authorized representatives.

L. Facility shall have the meaning set forth in Section 101(9) of CERCLA, 42 U.S.C. 9601(9). For purposes of this Agreement the term includes that property owned by the United States Department of the Army known as DDMT located in Shelby County, Tennessee.

M. HSWA shall mean the Hazardous and Solid Waste Amendments Act of 1984, Public Law 98-616.

N. National Contingency Plan or NCP shall mean the National Oil and

Hazardous Substances Pollution Contingency Plan, 40 C.F.R. Part 300, and any amendments thereto.

O. Operable Unit or OU shall mean a discrete action that comprises an incremental step toward comprehensively addressing Site problems. This discrete portion of a remedial response may eliminate or mitigate a release, threat of release, or pathway of exposure or manage the migration of a release. OUs may address geographical portions of a Site or specific Site problems. OUs may also address the initial phases of an action, or may consist of any set of actions performed over time or any actions that are concurrent but located in different parts of the Site. The remediation of the Site can be divided into a number of OUs, depending on the complexity of the problems associated with the Site. The term "operable unit" is not intended to refer to the term "operating unit" as used in RCRA. OUs shall be formally proposed via preparation of the corresponding Proposed Plan (pursuant to CERCLA) and listed in the approved SMP. Prior to preparation of the corresponding Proposed Plan, each OU shall be regarded as a potential OU. All potential OUs shall also be listed in the approved SMP, subject to revision based on data or information obtained during the Remedial Investigation/Feasibility Study (RI/FS).

P. Permit shall mean the RCRA permit, issued to DDMT by EPA and TDEC, and any modifications thereto. This permit includes the HSWA portion (permit number TN4 210 020 570), issued by EPA, and the RCRA portion, issued by TDEC, which together comprise the full RCRA permit (permit number TNHW-053, effective September 28, 1990) for DDMT.

Q. Project Manager(s) shall mean the individual designated by EPA, DLA and TDEC to oversee and provide technical assistance for the response actions required under the Agreement.

R. RCRA shall mean the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq., as amended by the Hazardous and Solid Waste Amendments of 1984, Public Law 98-616.

S. Site shall mean the areal extent of contamination and all suitable areas in very close proximity to the contamination necessary for the implementation of all response actions for the Site.

T. Site Management Plan (SMP) shall mean the plan submitted by DLA to EPA and TDEC which identifies and prioritizes the OUs to be remediated. The SMP shall also include a schedule of activities to be conducted by DLA through a Record of Decision, at a minimum, for each OU. The Deadlines established in the

approved SMP shall be enforceable for the current and upcoming two fiscal years (FY, FY+1 and FY+2), and projected for subsequent fiscal years.

U. Solid Waste Management Units (SWMUs) shall have the same meaning as defined in RCRA and the Permit and shall include those units at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid and/or hazardous waste. Such units include any area at the Site at which solid wastes have been routinely and systematically released.

V. Target Dates shall mean the date on which EPA and TDEC must receive any Secondary Documents under the terms of this Agreement and the SMP. Target Dates shall not be subject to stipulated penalties.

W. TDEC shall mean The State of Tennessee Department of Environment and Conservation.

X. Work shall mean all activities required by this Agreement including, without limitations, the activities specified in Sections XV (Consultation Process for Primary and Secondary Documents), XVI (Administrative Record and Public Participation), XVII (Retention of Records), XVIII (Progress Reports), XIX (Additional Work), XX (Five Year Review) and XXI (Schedules for Document Submittal). In general, work shall include all activities necessary to successfully accomplish all screening, RI/FS, Remedial Design/ Remedial Action (RD/RA) and Operation and Maintenance (O&M) activities for each site or OU identified by the Parties for DDMT.

#### V. INSTALLATION DESCRIPTION

A. For the purposes of this Agreement, DDMT is located in the south central section of Memphis, Shelby County, Tennessee, and encompasses six hundred forty-two (642) acres of Federal land. DDMT lies four miles southeast of the central business district and one mile north of Memphis International Airport. The Facility is set in a mixed residential, commercial and industrial land use area. DDMT consists of two sections: Dunn Field, an open storage and burial disposal area about sixty (60) acres in size, and the main installation, which is extensively developed.

B. The mission of DDMT is to receive, store, maintain and ship items. DDMT warehouses and distributes an extensive inventory of supplies including clothing, food, medical supplies, electronic equipment, petroleum products, and industrial chemicals used by United States Military Services and Federal

agencies. Due to the nature of its mission and the large supply volumes handled, some items were spilled, leaked or disposed of within Facility boundaries during the last fifty years.

C. The hydrogeologic regime beneath DDMT consists of the Upper Fluvial Aquifer and the underlying Memphis Sand Aquifer. The predominant source of domestic/potable water supply in the Memphis area is the Memphis Sand Aquifer. The Upper Fluvial Aquifer is not used within the City of Memphis for potable purposes. Recharge to the Memphis Sand Aquifer predominantly occurs via percolation of precipitation in outcrop areas approximately thirty (30) to sixty (60) miles east of the City of Memphis. The potentiometric surface in the Memphis Sand Aquifer beneath the installation is approximately one hundred fifty (150) feet below land surface.

D. The majority of surface water features at the Site are ditches, swales, concrete-lined channels and an efficient storm drainage system. Most of the Site is either level with, or higher than, the surrounding terrain. Only two permanent surface water bodies exist at the DLA Memphis Site. These are Lake Danielson and the Golf Course Pond.

#### VI. FINDINGS OF FACT

A. For purposes of this Agreement, the following constitutes a summary of the facts upon which this Agreement is based. None of the facts related herein shall be considered admissions by any Party. This Section contains findings of fact, determined solely by the Parties and shall not be used by any person related or unrelated to this Agreement for purposes other than determining the basis of this Agreement.

B. The installation was constructed in 1941 and was activated on January 26, 1942 as the Memphis General Depot, operating under the Army, the owner of the Facility. The Army operated the Facility until 1962. In 1962, the Defense Logistics Agency (then called Defense Supply Agency) became the operator of the Facility under permit from the Department of the Army, and named it Defense Depot, Memphis, Tennessee (DDMT). In 1991, Defense Distribution Region Central (DDRC) was established to provide operational direction to several DLA distribution depots in the Central United States. DDMT became a secondary level field activity or distribution site of DDRC. In 1993, DDRC was disestablished and the installation renamed DDMT.

C. The Department of Defense (DoD) developed the Installation Restoration Program (IRP) to evaluate and remediate the effects of past hazardous waste

management and disposal practices at its facilities and to comply with the provisions of CERCLA, 42 U.S.C. Section 9620 et seq.

D. In conformance with DLA environmental programs and the DoD IRP, a number of technical studies have been conducted at the Site. These are listed and described in Appendix B of this Agreement. DLA is currently preparing and revising documents which propose the means for: (i) completing the Remedial Investigation(s) for the Site; and (ii) implementing preliminary response actions to address ground water contamination beneath the Dunn Field area.

E. In January 1990, EPA conducted a RCRA Facility Assessment (RFA) of DDMT. The RFA resulted in the identification of forty-nine (49) Solid Waste Management Units (SWMUs) and eight (8) Areas of Concern (AOCs) at the Facility. Of these, fourteen (14) SWMUs and four (4) AOCs required no further action. Thirty-one (31) SWMUs and three (3) AOCs require further investigation in the form of confirmatory sampling and analysis or a RCRA Facility Investigation (RFI). Four (4) SWMUs and one (1) AOC were identified as needing only RFI characterization. These sites are identified in the Permit.

F. On September 28, 1990, EPA and TDEC issued a RCRA Permit to DDMT under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976 (see Section IV (Definitions)) and T.C.A. Section 68-212-101 et seq.

G. In accordance with Section 120(d)(2) of CERCLA, 42 U.S.C. 9620(d)(2), EPA prepared a final Hazard Ranking System (HRS) Scoring Package for the Facility. Based on the final HRS score of 58.06, EPA added DDMT to the National Priorities List (NPL) by publication in the Federal Register, 199 Federal Register 47180, October 14, 1992.

H. Based upon the information above, the Parties agree that the following are applicable to the provisions of this Agreement:

1. Work done and data and reports generated prior to the effective date of this Agreement shall be retained and utilized in preparing the RI/FS pursuant to CERCLA and RCRA to the maximum extent feasible, without violating Applicable or Relevant and Appropriate Requirements (ARARS), regulations, or guidelines.

2. Appendix C (FY94 Site Management Plan) contains a list of those known sites which have been identified as requiring further investigation. If any additional sites are identified after the

effective date of this Agreement, the Parties will determine what investigation or action is required for such sites through mutual consensus and in accordance with Section IX (Statutory Compliance/RCRA-CERCLA Integration).

#### VII. PURPOSE AND SCOPE OF AGREEMENT

A. The general purposes of this Agreement are to:

1. Ensure that DLA conducts the Work necessary to ensure that the environmental impacts associated with past and present activities at the Site are thoroughly investigated in accordance with the authorities cited in Section III (Jurisdiction) of this Agreement, and all provisions of CERCLA, the NCP, RCRA and applicable State Law;

2. Ensure that DLA develops and implements all appropriate response actions as necessary to protect the public health, welfare and the environment in accordance with the authorities cited in Section III (Jurisdiction) of this Agreement, and all provisions of CERCLA, the NCP, RCRA and applicable State Law; and

3. Facilitate cooperation, exchange of information and participation of the Parties in conducting these actions.

B. Specifically, the purposes of this Agreement are to ensure that DLA, in consultation with, and with the mutual consensus of, EPA and TDEC:

1. Meets the requirements of Section 120(e)(2) of CERCLA, 42 U.S.C. Section 9620(e)(2), for an interagency agreement among the Parties.

2. Identifies the response action necessary for all identified sites at DDMT. The Site Management Plan (Appendix C) lists all known RI/FS, screening and NFI sites, as well as all RCRA Units, as agreed to by the Parties. RI/FS sites shall be included in an OU and undergo a Remedial Investigation. Screening sites shall undergo a Preliminary Assessment/Site Investigation (PA/SI). Upon completion of the PA/SI, screening sites shall either be (i) upgraded to RI/FS status and included in an OU, or (ii) designated as NFI sites and dropped from further consideration. NFI sites include those sites for which sufficient information apparently already exists to make the determination that no further

Investigation or response action is necessary. A final decision by the Parties regarding the NFI status of these sites shall be made following the submittal of adequate written documentation by DLA, and review of this information by EPA and TDEC. Any additions, modifications and deletions to the list of sites at DDMT shall be made through the Parties' approval of the annual update of the SMP.

3. Identifies OUs and potential OUs which are appropriate at the Site in accordance with the program management principles of CERCLA, the NCP and applicable State Law. The last OU designated for the Site shall be the Comprehensive Site-Wide OU, as defined in Section IV (Definitions). Potential OUs shall be identified and proposed by the Parties in the SMP as early as possible prior to the formal proposal of OUs via the preparation of Proposed Plans, pursuant to CERCLA. OUs and potential OUs shall be established, and updated as needed, in the SMP.

4. Implements the Work and response action schedules for each OU which are required by the SMP.

5. Completes a Remedial Investigation (RI) for each OU to determine adequately the nature and extent of the threat to the public health or welfare or the environment caused by the release and/or threatened release of hazardous substances, pollutants, contaminants or constituents from that OU.

6. Completes a Feasibility Study (FS) for each OU which identifies and evaluates feasible remedial alternatives for preventing, mitigating, or abating the release and/or threatened release of hazardous substances, pollutants, contaminants or constituents from that OU.

7. Identifies the nature, objective and schedule of response actions to be taken at the Site. Response actions at the Site shall attain that degree of remediation of hazardous substances, pollutants or contaminants mandated by CERCLA, the NCP and applicable State Law.

8. Implements the selected response action(s) for each OU in a timely manner, and consistent with the applicable ROD, to ensure consistency with the ultimate goal of protecting human health, welfare and the environment.



9. Identifies and integrates all federal and state ARARS into the response action process in accordance with the authorities cited in Section III (Jurisdiction) of this Agreement, and all provisions of CERCLA, the NCP, RCRA and applicable State Law. EPA and TDEC shall assist DLA in identifying and integrating State and Federal ARARS into the response action process.

10. Completes any Additional Work which is identified and agreed upon by the Parties in accordance with Section XIX (Additional Work) of this Agreement and the authorities cited in Section III (Jurisdiction) of this Agreement, and all provisions of CERCLA, the NCP, RCRA and applicable State Law.

11. Coordinates the response action process for each OU with the mission and support activities of DDMT.

#### VIII. ENFORCEABILITY

A. The Parties agree that:

1. Upon the effective date of this Agreement, any standard, regulation, condition, requirement or order which has become effective under CERCLA and is incorporated into this Agreement is enforceable by any person pursuant to Section 310 of CERCLA, 42 U.S.C. Section 9659 and any violation of such standard, regulation, condition, requirement or order will be subject to civil penalties under Sections 310(c) and 109 of CERCLA, 42 U.S.C. Sections 9659(c) and 9609; and

2. All schedules or Deadlines associated with the response action process shall be enforceable by any person pursuant to Section 310 of CERCLA, 42 U.S.C. Section 9659(c), and any violation of such schedules or Deadlines will be subject to civil penalties under Sections 310(c) and 109 of CERCLA; 42 U.S.C. Sections 9659(c) and 9609.

3. All terms and conditions of this Agreement which relate to response actions, including corresponding Deadlines or schedules, and all Work associated with the response actions, shall be enforceable by any person pursuant to Section 310(c) of CERCLA, 42 U.S.C. Section 9659(c) and any violation of such terms or conditions will be subject to civil penalties under Sections 310(c) and 109 of

4. Any final resolution of a dispute pursuant to Section XXV (Resolution of Disputes) of this Agreement which establishes a term, condition, Deadline or schedule shall be enforceable by any person pursuant to Section 310(c) of CERCLA, 42 U.S.C. Section 9659(c) and any violation of such term, condition, Deadline or schedule will be subject to civil penalties under Sections 310(c) and 109 of CERCLA, 42 U.S.C. 9659(c) and 9609.

5. Upon modification of the Permit, as appropriate, to incorporate this Agreement, pursuant to Section IX (Statutory Compliance/RCRA-CERCLA Integration), all terms and conditions of this Agreement become enforceable by TDEC/EPA as terms and conditions of that Permit, except as otherwise provided in this Agreement or by law.

B. Nothing in this Agreement shall be construed as authorizing any person to seek judicial review of any CERCLA action or Work where review is barred by any provision of CERCLA, including Section 113(h) of CERCLA 42 U.S.C. Section 9613(h).

C. Nothing in this Agreement shall be considered as a restriction or waiver of any rights the Parties may have under CERCLA including but not limited to any rights under Sections 113, 120, and 310 of CERCLA, 42 U.S.C. Sections 9613, 9620, and 9659. DLA does not waive any rights it may have under Section 120 of CERCLA, 42 U.S.C. Section 9620, SARA Section 211, 10 U.S.C. Section 2701 et seq. and Executive Order 12580. The Parties agree that all Parties shall have the right to enforce the terms of this Agreement.

D. Consistent with this Agreement, the Parties agree to exhaust fully the remedies provided in Section XV (Consultation Process for Primary and Secondary Documents) and Section XXV (Resolution of Disputes) of this Agreement prior to exercising any other rights the Parties may have relative to the Site or any judicial rights the Parties may have.

E. Appendix D to this Agreement is a letter from the U.S. Department of Justice to the Defense Logistics Agency which sets forth the Department of Justice's position on the enforceability of Federal Facility Agreements entered into pursuant to CERCLA Section 120(e), 42 U.S.C. 9620(e).

## IX. STATUTORY COMPLIANCE/RCRA-CERCLA INTEGRATION

A. The Parties intend to integrate DLA's CERCLA response obligations and the RCRA corrective action obligations of the Permit into this comprehensive Agreement. Therefore, the Parties intend that compliance with this Agreement will achieve compliance with CERCLA, 42 U.S.C. Section 9601 et seq.; will satisfy the corrective action requirements of Section 3004(u) and 3004(v) of RCRA, 42 U.S.C. Sections 6924(u) and (v), the Permit and Section 3008(h) of RCRA, 42 U.S.C. Section 6928(h), for interim status facilities; and will meet or exceed all applicable or relevant and appropriate Federal and State Laws and regulations to the extent required by Section 121 of CERCLA, 42 U.S.C. Section 9621 and applicable State Law. A list of the documents common to RCRA and CERCLA, and a flow chart for their submittal, are provided in Appendix A to this Agreement. All work done and data generated prior to the effective date of this Agreement shall be retained and utilized as appropriate under this Agreement to the maximum extent feasible without violating applicable or relevant and appropriate laws, regulations or guidelines.

B. Based upon the foregoing, the Parties intend that any response action selected, implemented and completed under this Agreement will be protective of human health and the environment such that remediation of releases covered by this Agreement shall obviate the need for further corrective action to address such releases under RCRA as amended, and T.C.A. Section 68-212-101 et seq. The Parties agree that with respect to releases of hazardous waste or hazardous constituents covered by this Agreement, RCRA and T.C.A. Section 68-212-101 et seq. shall be considered applicable or relevant and appropriate requirements (ARAR's) pursuant to Section 121 of CERCLA, 42 U.S.C. Section 9621. Releases or other hazardous waste activities not covered by this Agreement remain subject to all applicable State and Federal environmental requirements.

C. EPA intends to reference and incorporate this Agreement, including appropriate procedures for the selection of remedial action(s), schedules and provisions for extension of such schedules, into the Permit. For instance, EPA intends to modify the Permit as appropriate, to incorporate the remedial action(s) selected under this Agreement as corrective measures, when appropriate to satisfy Sections 3004(u) and (v) of RCRA 42 U.S.C. Sections 6924(u) and (v). DLA shall submit all necessary requests for permit modification to EPA and TDEC in a timely manner in accordance with 40 C.F.R. 270.42 et seq. With respect to those portions of this Agreement incorporated by reference into such permit, EPA intends that judicial review of the incorporated portions shall, to the extent authorized by law, only occur under the provisions of CERCLA.

D. TDEC decisions for RCRA units contained in TDEC's portion of the Permit shall not be subject to Section XXV (Resolution of Disputes) of this Agreement. The list of such units, shall be revised by TDEC in annual updates of the SMP, as needed.

#### X. PERMITS

A. The Parties recognize that under 121(e)(1) of CERCLA, 42 U.S.C. Sections 9621(e)(1), and the NCP, 40 C.F.R. Part 300 et seq. (1988), as amended, portions of the CERCLA response actions selected and carried out pursuant to this Agreement and conducted entirely on Site are exempted from the procedural requirement to obtain a Federal, State, or local permit but to the extent required by CERCLA must satisfy all the applicable or relevant and appropriate Federal and State laws, standards, requirements, criteria, or limitations which would have been included in any such permit. The Parties further recognize that ongoing hazardous waste management activities at DDMT may require issuance of permits under Federal and State laws. This Agreement does not affect the requirements, if any, to obtain such permits.

B. When DLA proposes a response action other than a time-critical removal action to be conducted entirely on Site, which in the absence of Section 121(e)(1) of CERCLA, 42 U.S.C. Section 962(e)(1), and the NCP would require a Federal, State, or local permit, DLA shall include in the Remedial Action Work Plan:

1. Identification of each permit which would otherwise be required;
2. Identification of the laws, standards, requirements, criteria, or limitations which would have had to have been met to obtain each such permit; and
3. An explanation of how the response action will meet the standards, requirements, criteria or limitations identified in Subsection B.2. immediately above, but only to the extent that this information is not covered by the statutory obligations of the Parties to identify ARARs. Upon request of DLA, EPA and TDEC will provide their position with respect to Subsections B.2. and B.3 above within thirty (30) days if feasible.

C. Subsection A above is not intended to relieve DLA from complying with Federal, State, or local hazardous waste management requirements whenever it proposes response actions involving the shipment or movement of a hazardous substance and/or hazardous waste off the Facility.

D. DLA shall provide TDEC and EPA Project Managers written notice of any permits required for off Site activities as soon as it becomes aware of the requirement. Upon request, DLA shall provide TDEC and EPA Project Managers copies of all such permit applications and other documents related to the permit or approval process.

E. If a permit or other authorization necessary for implementation of this Agreement is not issued/granted, or is proposed to be issued or renewed in a manner which is materially inconsistent with the requirements of any work plan reached pursuant to this Agreement, DLA agrees it shall notify TDEC and EPA of the inconsistency as soon as possible. The Project Managers shall then meet to consider the appropriate course of action.

F. During the pendency of any delay pursuant to Subsection E above, DLA shall continue to implement those portions of the applicable work plan which are not directly or indirectly dependent upon a permit/approval in question and which can be implemented pending final resolution of the permit/approval issue(s).

G. Except as otherwise provided in CERCLA, or as agreed to by the Parties, DLA shall comply with applicable State and Federal hazardous waste management requirements such as those in Sections 3004 and 3005 of RCRA, 42 U.S.C. Sections 6924 and 6925, at the Site.

H. To the extent that this information has been provided by DLA in another document or report required under this Agreement, it is not the intent of the Parties that this Section requires resubmission of this information.

#### XI. RESERVATION OF RIGHTS

A. The Parties, after exhausting their remedies under this Agreement, expressly reserve any and all rights they may have under any law, including but not limited to CERCLA, all provisions of the Hazardous Waste Management Act of 1977, T.C.A. Section 68-212-101 et seq. or any provision of any other State, Federal, or local law, including any laws pursuant to a Federally authorized program, where those rights are not inconsistent with the provisions of this Agreement, CERCLA or the NCP. In addition, by entering into this Agreement and despite any other provision contained herein, the Parties do not waive their sovereign immunity, except as otherwise provided by law.

B. Nothing in this Agreement shall limit the discretion of any Party to enter into an agreement with any other potentially responsible party for the performance of a remedial investigation, feasibility study, or remedial action

at or in the vicinity of the Facility if EPA, in consultation with DLA and TDEC determines that such other party is qualified to do the Work and the remedial investigation, feasibility study, or remedial action activities will be done properly by such other party under the provisions of Section 120(e)(6) of CERCLA, 42 U.S.C. Section 9620(e)(6).

C. This Agreement shall not be construed as a bar or release of any claim, cause of action, right to assess penalties, or demand in law or equity including but not limited to any right TDEC may have in relation to DLA's failure to comply with any term or condition of this Agreement, or for DLA's failure to comply with any schedule or Deadline established pursuant to this Agreement or for any violation of Tennessee Law.

D. This Agreement does not waive, bar, release or affect any claims TDEC may have for damages to natural resources.

E. TDEC shall retain all rights it has pursuant to Section 121(f)(3) of CERCLA, 42 U.S.C. Section 9621(f)(3) and Tennessee Law. If TDEC does not exercise its rights under Section 121(f)(3) of CERCLA, 42 U.S.C. Section 9621(f)(3) in a timely manner, the response action may proceed.

## XII. OTHER CLAIMS

A. Nothing in this Agreement shall constitute or be construed as a bar or release from any claims, cause of action or demand in law or equity by or against any person, firm, partnership or corporation not a signatory to the Agreement for any liability it may have arising out of or relating in any way to the generation, storage, treatment, handling, transportation, release, or disposal of any hazardous substances and hazardous wastes and hazardous constituents, pollutants, or contaminants found at, taken to, or taken from the Site.

B. Neither the EPA or TDEC shall be held as a party to any contract entered into by DLA with any other party to implement the requirements of this Agreement.

C. DLA and other State and Federal trustees shall act on behalf of the public as the trustees for the natural resources present at DDMT. In this capacity, DLA shall notify the appropriate Federal and State natural resource trustees as required by Section 104(b)(2) of CERCLA, 42 U.S.C. Section 9604(b)(2), and Section 2(e)(2) of Executive Order 12580. DLA shall also be responsible for assessing damages (injury, destruction, loss of resources) resulting from releases of hazardous substances on DDMT, and for implementing

measures designed to mitigate, and/or compensate for, such damages. These authorities are vested in DLA (as specified in Executive Order 12580) pursuant to Section 107(f) of CERCLA and Section 311(f) of the Federal Water Pollution Control Act. Except as provided herein, DLA is not released from any liability which it may have pursuant to any provisions of State and Federal Law, including any claim for damages for liability to the destruction of, or loss of natural resources.

### XIII. PROJECT MANAGERS

A. On or before the effective date of this Agreement, EPA, DLA, and TDEC shall each designate and notify the other Parties in writing of the name and address of their Project Manager and an Alternate Project Manager. The Project Managers shall be responsible, on a daily basis, for assuring proper implementation of all Work performed under the terms of the Agreement. In addition to the procedures set forth in Section XXXI (Written Notification Procedures), to the maximum extent practicable, communications among DLA, EPA, and TDEC on all documents, including reports, comments and other correspondence concerning the activities performed pursuant to this Agreement, shall be directed through the Project Managers. The Alternate Project Manager shall be authorized to exercise the authority of the Project Manager in his or her absence.

B. DLA, EPA and TDEC may change their respective Project Managers. Such change shall be accomplished by notifying the other Parties, in writing, within five (5) Days of the change and prior to the new Project Manager exercising his or her delegated authority.

C. The Project Managers shall confer informally as provided for in Section XV (Consultation Process for Primary and Secondary Documents). The Project Manager for DLA shall be responsible for day-to-day field activities at the Site. The absence of EPA and/or TDEC or DLA Project Managers from the Site shall not be a cause for the delay or stoppage of Work. Whenever possible, the Project Managers shall resolve informally, by consent, any issue related to the implementation of this Agreement. Although DLA has ultimate responsibility for meeting the Deadlines and schedules required by this Agreement and the SMP, the Project Managers shall assist in this effort, including scheduling meetings to address documents, reviewing reports, overseeing the performance of environmental monitoring at the Site, and reviewing the progress of the response action process.

D. Subject to the limitations set forth in Section XXVII (Site Access), the authority of the Project Managers shall include, but is not limited to:

1. Taking or splitting samples and ensuring that sampling and other field work is performed in accordance with the terms of this Agreement and any approved Work Plan or Statement of Work;

2. Observing, taking photographs and making such other reports on the progress of the Work as the Project Managers deem appropriate;

3. Reviewing records, files and documents relevant to the Work performed; and

4. Recommending and requesting minor field modifications to the Work to be performed pursuant to an approved Work Plan, or in techniques, procedures, or designs utilized in carrying out such Work Plan.

E. Any minor field modification proposed by a Party pursuant to this Section must be approved orally by all Parties' Project Managers to be effective. The DLA Project Manager will make a contemporaneous record of such modification and approval in a written log, and a copy of the log entry will be provided as part of the next progress report. No Project Manager may require implementation of an approved modification by a government contractor without approval of the appropriate government Contracting Officer.

F. If any event occurs or has occurred that may delay or prevent the performance of any obligation under this Agreement, whether or not caused by a force majeure event, any Party shall notify by telephone the other Parties' Project Managers within two (2) working days of when the Party first became aware that the event might cause a delay. If the Party intends to seek an extension of a Deadline or schedule because of the event, the procedures of Section XXIII, (Extensions), shall apply.

#### XIV. TECHNICAL REVIEW COMMITTEE

Pursuant to 10 U.S.C. Section 2705(c), DLA shall establish a Technical Review Committee (TRC). The Parties shall participate in the TRC as follows:

- A. A DLA representative who shall chair the TRC;
- B. An EPA representative; and
- C. A TDEC representative.

The Parties shall encourage representatives from the following organizations to serve as members of the TRC:



- D. A representative from Shelby County Government; and  
E. A representative from the City of Memphis Government.

103 24

The chairman shall schedule quarterly meetings of the TRC unless the Parties agree to meet less frequently. If possible, meetings shall be held in conjunction with the meetings of the Project Managers. Meetings of the TRC shall be for the purpose of reviewing progress under the Agreement. Special meetings of the TRC may be held at the request of the members. Minutes of each TRC meeting shall be prepared and sent to all Parties.

#### XV. CONSULTATION PROCESS FOR PRIMARY AND SECONDARY DOCUMENTS

##### A. Applicability:

The provisions of this Section establish the procedures that shall be used by the Parties to provide each other with appropriate notice, review, comment, and response to comments regarding response action documents, specified herein as either Primary or Secondary Documents. In accordance with Section 120 of CERCLA, 42 U.S.C. Section 9620 and 10 U.S.C. Section 2705, and the approved SMP, DLA will be responsible for issuing Primary and Secondary Documents to EPA and TDEC. As of the effective date of this Agreement, all documents shall be prepared, distributed and subject to dispute resolution in accordance with Subsections B through E below.

The designation of a document as "draft" or "draft final" is solely for purposes of consultation with EPA and TDEC in accordance with this Section. Such designation does not affect the obligation of the Parties to issue documents, which may be referred to herein as "final," to the public for review and comment as appropriate and as required by law.

##### B. General Process for Primary Documents:

1. Primary Documents include those reports, plans and studies that are major, discrete portions of the response action process. DLA shall complete and transmit the following draft and draft final Primary Documents, to EPA and TDEC for review and comment in accordance with the provisions of this Section, Section XXI. (Schedules for Document Submittal) and the approved SMP. Unless otherwise specified the documents shall be for a specific OU(s).

- a. Site Community Relations Plan.
- b. Remedial Investigation and Feasibility Study (RI/FS)

Work Plans.

- c. Remedial Investigation (RI) Reports (including Baseline Risk Assessments).
- d. Feasibility Study (FS) Reports (including detailed analysis of alternatives).
- e. Proposed Remedial Action Plans (PRAPs)
- f. Records of Decision (RODs).
- g. Remedial Design (RD) Work Plans (including schedules for the development and submittal of Incremental (e.g., 30%, 60%, 90%) and Final RD Reports).
- h. 100% Remedial Design (RD) Reports (including the RA Bid Package and final design plans and specifications).
- i. Remedial Action (RA) Work Plans (including the awarded RA contract, and schedules for RA implementation and the submittal of Quality Control Plan(s), Post-Construction Report(s), Operation & Maintenance Plan(s) and Final Remediation Report(s)).
- j. Written Notification of RA Implementation Start Date
- k. Final Remediation Reports (including Preliminary Closeout Reports).
- l. Five Year Review Reports
- m. Finding of Suitability for Transfer (FOST), as needed
- n. Finding of Suitability for Lease (FOSL), as needed
- o. Site Closeout Report, including Notice of Intent to Delete.
- p. Site Management Plan (SMP)

2. DLA shall complete and transmit each draft Primary Document to EPA and TDEC such that it will be received on or before the corresponding Deadline established in the SMP for EPA and TDEC receipt of the document.

3. Unless the Parties mutually agree to another time period, in accordance with Subsection 8.8. of this Section, all draft Primary Documents shall be subject to a sixty (60) Day period for review and comment. Review of any Primary Document by the EPA and TDEC may concern all aspects of the document (including completeness) and should include, but is not limited to, technical evaluation of any aspect of the document, consistency with CERCLA, the NCP, and any pertinent guidance and policy which is applied by the EPA and TDEC. Comments by EPA and/or TDEC shall be provided with adequate specificity so that DLA may respond to the comment and, if

appropriate, make changes to the draft document. Comments shall refer to any pertinent sources of authority or references upon which the comments are based. In cases involving complex or unusually lengthy documents, EPA and/or TDEC may extend the comment period for an additional twenty (20) Days by written notice to DLA prior to the end of the comment period. This 20-Day extension period shall not be subject to the requirements of Section XXII (Extensions). EPA and TDEC shall transmit their written comments to DLA such that the comments are received by DLA on or before the close of the comment period.

4. Following the close of the comment period for a draft Primary Document, DLA shall give full consideration to all written comments on said document which were submitted during the comment period. DLA shall transmit a written response to said comments such that the response is received by EPA and TDEC as soon as possible, and no later than sixty (60) Days from the close of the comment period on said draft Primary Document. DLA shall transmit a draft final Primary Document such that said document is received by EPA and TDEC no later than one hundred and twenty (120) Days from the close of the comment period for the corresponding draft Primary Document. While the resulting draft final Primary Document shall be the responsibility of DLA, it shall be the product of consensus to the maximum extent possible.

5. DLA may extend the one hundred and twenty (120) day period for issuing the draft final Primary Document by an additional twenty (20) Days by providing written notice to EPA and TDEC. This 20-Day extension period shall not be subject to the requirements of Section XXII (Extensions). In appropriate circumstances, the above time periods may be further extended in accordance with Section XXII (Extensions) of this Agreement.

6. Dispute resolution shall be available to the Parties for draft final Primary Documents as set forth in Section XXV (Resolution of Disputes) of this Agreement. When dispute resolution is invoked on a draft final Primary Document, Work may be stopped in accordance with the procedures set forth in Section XXV (Resolution of Disputes).

7. Except for a ROD, the draft final Primary Document shall become the final Primary Document if no Party invokes dispute resolution

within thirty (30) Days of issuance of the document or, if invoked, at completion of the dispute resolution process should the DLA position be sustained. If DLA's determination is not sustained in the dispute resolution process, DLA shall prepare, within not more than thirty-five (35) Days, a revision of the draft final Primary Document which conforms to the results of dispute resolution. In appropriate circumstances, this time period for revision may be extended in accordance with Section XXII (Extensions) of the Agreement. A draft final ROD is subject to dispute thirty (30) Days after it is submitted to EPA and TDEC. The ROD shall become final upon signature by DLA and concurrence by EPA and TDEC.

8. All Primary Documents shall be subject to the time frames provided in Subsections B.1. through B.7. above unless otherwise agreed to by the Parties. Alternate time frames shall be proposed and agreed upon by the Parties on a case-by-case basis for individual Primary Documents, and shall be formally documented in the approved SMP. Any extensions to the agreed-to time frames shall be subject to the conditions of Section XXII (Extensions).

9. Following finalization of any Primary Documents, any Party may seek to modify the document, including seeking additional field work, pilot studies, computer modeling or other supporting technical work, only as provided in paragraphs a. and b. below.

a. A Party may seek to modify a Primary Document after finalization if it determines, based on significant new information (i.e., information that became available, or conditions that became known, after the document was finalized) that the requested modification is necessary. A Party may seek such a modification by submitting a written request to the Project Managers of the other Parties. The request shall specify the nature of the requested modification and state the new information upon which the request is based.

b. In the event that a consensus is not reached by the Project Managers on the need for a modification, any Party may invoke dispute resolution to determine if such modification shall be conducted. Modification of a Primary Document shall be required only upon a showing

that: (1) the requested modification is based on significant new information/significant new site conditions, and (2) the requested modification could be of significant assistance in evaluating impacts on the public health, welfare or the environment, in evaluating the selection of remedial alternatives, or in protecting human health, welfare and the environment.

C. General Process for Secondary Documents:

1. Secondary Documents include those reports, plans and studies that are discrete portions of the Primary Documents and are typically input or feeder documents. DLA has completed or shall complete and transmit draft documents of all Secondary Documents required by the approved SMP, to EPA and TDEC for review and comment in accordance with the provisions of this section, Section XXI (Schedules for Document Submittal) and the approved SMP. Unless otherwise specified, each document shall be for a specific OU. Secondary Documents, as needed, may include but are not limited to:

- a. Preliminary Characterization Summary Reports.
- b. Preliminary Risk Assessment Reports
- c. Sampling and Analysis Plans (SAPs) (including Quality Assurance Project Plans (QAPPs) and Field Sampling Plans (FSPs)).
- d. Site Quarterly Progress Reports.
- e. Treatability Study Reports.
- f. Responsiveness Summaries.
- g. Remedial Action (RA) Progress Reports.
- h. Incremental Remedial Design Reports (e.g., 30%, 60%, 90%).
- i. Remedial Action (RA) Post-Construction Reports.
- j. Operation and Maintenance (O&M) Plans.
- k. Data Management Plan (DMP).

2. DLA shall complete and transmit each draft Secondary Document to EPA and TDEC such that it will be received on or before the Target Date established for EPA and TDEC receipt of the document pursuant to Section XXI (Schedules for Document Submittal) of this Agreement.

3. Secondary Documents shall be subject to the review process specified for Primary Documents unless otherwise agreed to by the

Parties. Alternate procedures and time frames for the review of secondary documents shall be specified in the approved SMP. However, the Parties may not establish Target Dates which adversely impact the Parties' ability to meet the Deadlines established for Primary Documents.

103 29

4. Although EPA and TDEC may comment on Secondary Documents, and DDMT shall respond to any comments received, Secondary Documents shall not necessarily be subject to review and comment, and may be finalized in the context of the corresponding Primary Documents. A Secondary Document may be disputed only in the context of the corresponding Primary Document.

D. Coordination of the Project Managers on Development of Documents:

1. The Project Managers shall confer monthly except as otherwise agreed by the Parties, to review and discuss the progress of Work being performed at the Site on the Primary and Secondary Documents. Prior to preparing any draft document described in Subsections C and D above, the Project Managers shall discuss the data to be reported in an effort to reach a common understanding, to the maximum extent practicable, with respect to the results to be presented in the draft document.

2. Representatives of DLA shall make themselves reasonably available to EPA and TDEC during the comment period for purposes of informally responding to questions and comments on draft documents. Oral comments made during such discussions need not be the subject of a written response by DLA on the close of the comment period.

3. In commenting on a draft document which contains a proposed ARAR determination, whenever EPA and/or TDEC objects, it shall explain the basis for its objection in detail. EPA or TDEC shall also identify any ARARs which it believes were not properly addressed in the proposed ARAR determination.

4. EPA and TDEC shall identify all pertinent written guidance in response to written requests by DLA for said guidance to assist DLA in satisfying the requirements pursuant to this Agreement.

1. For those Primary or Secondary Documents that consist of or include ARAR determinations, prior to the issuance of a draft document, the Project Managers shall confer as early as possible to identify and propose, to the best of their ability, all potential ARARs pertinent to the document being addressed. TDEC shall coordinate with DLA on all potential State ARARs as early in the remedial processes as possible consistent with the requirements of Section 121(d)(2)(a)(ii) of CERCLA, 42 U.S.C. Section 9621(d)(2)(a)(ii) and the NCP. DLA shall consider any written interpretation of ARARs provided by TDEC. Draft ARAR determinations shall be prepared by DLA in accordance with Section 121(d)(2) of CERCLA, the NCP, and pertinent guidance and policy which is applied by EPA and TDEC consistent with CERCLA and the NCP.

2. In identifying potential ARARs, the Parties recognize that actual ARARs can be identified only on a site-specific basis and that ARARs depend on the specific hazardous substances, pollutants and contaminants at the site, or OU, the particular actions proposed as a remedy and the characteristics of the site or OU. The Parties recognize that ARAR identification is necessarily an iterative process and that potential ARARs must be re-examined throughout the RI/FS process until the ROD is issued.

#### XVI. ADMINISTRATIVE RECORD AND PUBLIC PARTICIPATION

A. The Parties agree that the Work to be conducted; this Agreement and modifications hereto; and all response actions arising hereunder shall comply with the Administrative Record and public participation requirements of Sections 113(k) and 117 of CERCLA, 42 U.S.C. Sections 9613(K) and 9617, including any guidance and/or regulations promulgated by EPA with respect to such sections; the NCP; the public hearing requirements of Section 3008(h) of RCRA, 42 U.S.C. Section 6928(h); and applicable State Law. This shall be achieved through implementation of the approved Community Relations Plan (CRP) prepared and implemented by DLA. When appropriate, the Parties intend to coordinate public participation activities under this Agreement with those required under other State and Federal environmental laws (including RCRA) regulating activities at DDHT that are not covered by this Agreement.

B. DLA shall develop and implement the CRP pursuant to the schedule set forth in the approved SMP in a manner consistent with Section 117 of CERCLA, 42

U.S.C. Section 9617; the NCP; applicable EPA guidance; and any modifications thereto.

C. To the extent practicable, any Party issuing any press release to the media regarding any of the Work required by this Agreement shall advise the other Parties of such press release and the contents thereof, at least two (2) business days before the issuance of such press release and of any subsequent changes prior to release. This provision for notice, however, does not extend to contract solicitations for work or modifications thereto that are routinely publicized for competition purposes.

D. DLA agrees it shall establish and maintain an official Administrative Record for each OU, which will include an index of all documents contained therein in accordance with Section 113(k) of CERCLA, 42 U.S.C. Section 9613(k), at or near the following location:

Memphis/Shelby County Public Library  
Main Branch (also called the "Main Library")  
1850 Peabody Avenue  
Memphis, TN 38104-4021

in accordance with Section 113(k) of CERCLA, 42 U.S.C. Section 9613(K). The Administrative Record shall be established and maintained in accordance with applicable EPA policy and guidelines. A copy of each document placed in the Administrative Record will be provided to EPA and TDEC upon request. An updated index of documents in the Administrative Record shall be provided to EPA and TDEC on a semiannual basis.

#### XVII. RETENTION OF RECORDS

DLA shall preserve all records and documents forming the Administrative Record for a minimum of ten (10) years after termination of this Agreement despite any other retention policy to the contrary. After this ten (10) year period, each Party shall notify the other Parties at least forty-five (45) Days prior to the destruction or disposal of any such documents or records. Upon request by any Party, the requested Party shall make available such records or documents for the requesting Parties' review and retention.

#### XVIII. PROGRESS REPORTS

DLA shall submit to TDEC and EPA quarterly written progress reports during the fiscal year which identify and briefly describe the actions which DLA has taken during the previous quarter to implement the requirements of this



Agreement. Progress reports shall also identify and briefly describe the activities scheduled to be taken during the upcoming quarter. Progress reports shall be submitted by the tenth (10th) Day of each quarter following the first full quarter after the effective date of this Agreement. The progress reports shall include a statement of the manner and extent to which the requirements and time schedules set out in this Agreement are being met. In addition, the progress reports shall identify any anticipated delays in meeting time schedules, the reason(s) for the delay and actions taken to prevent or mitigate the delay. DLA shall submit written notification of a significant new Site condition/significant new information which may impact SMP schedules or require Additional Work within five (5) Days of such determination by DLA.

#### XIX. ADDITIONAL WORK

A. Except as provided in Section XV (Consultation Process for Primary and Secondary Documents) of this Agreement, either EPA or TDEC may at any time request Additional Work, including field modifications, remedial investigatory work, or engineering evaluations, which they determine to be necessary to accomplish the purposes of this Agreement. Such requests shall be in writing to DLA with copies to the other Parties. DLA agrees to give full consideration to all such requests. DLA may either accept or reject any such requests and shall do so in writing together with a statement of reasons, within forty-five (45) Days of receipt of any such requests. If there is no agreement concerning whether or not the requested additional work or modification to Work should be conducted, then dispute resolution may be invoked only at the time of review of the subsequent corresponding Primary Document, in accordance with the procedures set forth in Section XV (Consultation Process for Primary and Secondary Documents) of this Agreement.

B. Should Additional Work be required pursuant to this Section, the appropriate work plan shall be prepared or amended and proposed by DLA for review and approval by EPA and TDEC.

C. The discovery of previously unknown sites, releases of hazardous substances, contamination, or other significant new Site conditions may be addressed as Additional Work under this Section.

D. Any Additional Work or modifications to Work proposed by DLA shall be proposed in writing to the other Parties and shall be subject to review in a Primary Document (or modification to an existing Primary Document) in accordance with Section XV (Consultation Process for Primary and Secondary Documents) of this Agreement. DLA shall not initiate such Work prior to review and approval

by EPA and TDEC, except for emergency removal actions taken under Subsection XI(C) (Imminent and Substantial Endangerment).

E. Any Additional Work or modification to Work agreed to be required under this Section, shall be completed in accordance with the standards, specifications, and schedules determined or approved by EPA and TDEC and shall be governed by the provisions of this Agreement.

#### XX. FIVE YEAR REVIEW

A. Consistent with Section 121(c) of CERCLA, 42 U.S.C. Section 9621(c), (and OSWER Directive 9320.2-3A, Procedures for Completion and Deletion of NPL Sites) DLA agrees that if the remedial action(s) selected results in any hazardous substance, contaminant or pollutant remaining at the Site above levels that allow for unlimited use and unrestricted exposure, EPA and TDEC shall evaluate such remedial action through review of the Five Year Report to be submitted in accordance with Section XV (Consultation Process for Primary and Secondary Documents) and the approved SMP every five years after the initiation of such final remedial action(s) to assure that human health, welfare, and the environment are being protected by the remedial action(s) being implemented. Such five year reviews will continue so long as any hazardous substance, pollutant or contaminant remains on Site above levels that allow for unlimited use and unrestricted exposure. If, upon such review, it is the judgment of the Parties that additional action or modification of the remedial action is appropriate in accordance with Sections 104, 106 or 120 of CERCLA, 42 U.S.C. Section 9604, 9606 and 9620 then DLA shall submit a proposal to implement such additional or modified actions which shall be subject to review and approval by EPA and TDEC. The Parties shall also update the SMP to include any resultant changes to the approved schedules. Any report produced under this Section shall be a Primary Document as described in Section XV (Consultation Process for Primary and Secondary Documents).

B. Any dispute under this Section shall be resolved under Section XXV (Resolution of Disputes) of this Agreement.

#### XXI. SCHEDULES FOR DOCUMENT SUBMITTAL

A. The purpose of the (Site Management Plan) SMP is to set forth the schedule under which DLA will conduct all response activities associated with the investigation and remediation of each OU for the Site, including the submission of Primary Documents. The SMP shall be a Primary Document and subject to stipulated penalties pursuant to Section XXIV (Stipulated Penalties) in the event

that DLA fails to submit the SMP in accordance with the schedule specified in this section.

B. The SMP shall include, at a minimum:

1. A listing, brief description of, and rationale for, each OU and potential OU subject to the Agreement;
2. A rationale for the prioritization of each OU at the Site;
3. Activities, schedules and submittal dates for Work planned for each OU through a Record of Decision (ROD);
4. Activities, schedules and submittal dates for Remedial Design and Remedial Action Work for those Operable Units with an approved ROD; and
5. The enforceable Deadlines for all Primary Documents for the current (FY) and subsequent two (FY+1 and FY+2) fiscal years (FY 1994 and 1995 in the attached SMP) as defined in Section XV (Consultation Process for Primary and Secondary Documents).

C. In addition, the SMP shall be updated to include the following information and schedules as indicated below:

1. Within twenty-one (21) days of issuance of a Record of Decision, DLA shall propose schedules and Deadlines for Remedial Design and Remedial Action activities and submittal of the associated Primary and Secondary Documents. Such Deadlines shall be proposed and finalized in accordance with the procedures set forth in this Section.
2. In accordance with CERCLA and the NCP, DLA shall provide the other Parties with written notification of the date on which Remedial Action activities are initiated for an OU no later than 15 months from issuance of the ROD for that OU.

D. The FY94 Site Management Plan (SMP) is attached to this Agreement as Appendix C. No later than December 1 of each fiscal year, following the effective date of this Agreement, the DLA shall submit a revised draft SMP which shall propose Deadlines for each of the draft Primary Documents to be submitted in FY+1 and FY+2.

E. Within thirty (30) Days of receipt, EPA and TDEC shall review and provide comments to the DLA regarding the draft SMP. Within thirty (30) Days following receipt of the comments DLA shall, as appropriate, make revisions and

resubmit the amended SMP as a draft final document. The Parties shall meet as necessary to discuss and finalize the proposed Primary Document Deadlines and Work priorities for the Site. If the Parties agree on proposed Deadlines and Work priorities for the Site, the finalized Deadlines shall be incorporated into the appropriate Work Plans. If the Parties fail to agree by March 1 on the proposed Deadlines and Work priorities for the Site, the matter shall immediately be submitted for formal dispute resolution as described in Section XXV (Resolution of Disputes).

F. The FY+1 enforceable commitments in the existing, previously approved SMP shall become current FY enforceable commitments on October 1, FY+1 and shall remain in effect until amended or replaced by a revised SMP which is approved by all the Parties. The SMP may be further amended or replaced at any time by mutual consensus of the Parties.

G. Of the Primary Document Deadlines contained within the approved SMP, only those which fall within the current FY, FY+1 and FY+2 for each annual update of the SMP shall be enforceable and subject to stipulated penalties as set forth in Section XXIV (Stipulated Penalties). All later Deadlines shall be regarded as projected dates, subject to review and revision in the annual update of the SMP as required in Subsections C through E above.

H. The final Deadlines established pursuant to this Section shall be available as part of the Administrative Record.

I. The Deadlines set forth in this Section, or to be established as set forth in this Section, may be extended pursuant to Sections XXII (Extensions) and XV. (Consultation with EPA and TDEC for Primary and Secondary Documents) of this Agreement.

J. Within thirty (30) Days after DLA receives its annual budget allotment from the DOD Comptroller, DLA shall notify EPA and TDEC in writing as to whether or not the appropriations were sufficient to meet the budget request for DDMT for that fiscal year.

K. To the extent that DLA has diligently sought but does not receive funding from Congress for the current FY commitments, the Parties shall meet within thirty (30) Days of the written notification referred to in Subsection J above, to modify the enforceable timetables and deadlines for the current FY commitments contained in the SMP. Within fifteen (15) Days of the meeting, DDMT shall submit a draft revised SMP to EPA and TDEC. EPA and TDEC shall review and comment on the draft revised SMP within fifteen (15) Days of receipt. Within

fifteen (15) Days of receipt of EPA and TDEC comments, DLA will revise, if necessary, the draft revised SMP and submit a draft final SMP. The Parties agree to finalize the revised SMP no later than one hundred and five (105) Days from the date of DLA's initial request.

## XXII. EXTENSIONS

A. Either a Deadline or a schedule set forth in this Agreement or the approved SMP shall be extended upon receipt of a timely request for extension by DLA and when good cause exists for the requested extension in accordance with Subsection B below. Any request for extension by DLA shall be submitted in writing to EPA and TDEC at least 10 days prior to the Deadline or scheduled due date and shall specify:

1. The Deadline or the schedule that is sought to be extended;
2. The length of the extension sought;
3. The good cause(s) for the extension; and
4. Any related Deadline or schedule that would be affected if the extension were granted;

B. Good cause exists for an extension when sought in regard to:

1. An event of Force Majeure as defined in Section XXIII (Force Majeure);
2. A delay caused by EPA's or TDEC's failure to meet any requirement of this Agreement;
3. A delay caused by the good faith invocation of dispute resolution or the initiation of judicial action;
4. A delay caused, or that is likely to be caused by, the granting of an extension in regard to another Deadline or schedule; or
5. Any other event or series of events mutually agreed to by the Parties as constituting good cause.

C. Absent agreement of EPA or TDEC with respect to the existence of good cause, DLA may seek and obtain a determination through the dispute resolution process that good cause exists.

D. Within ten (10) Days of receipt of a request for an extension of a schedule or Deadline, EPA and TDEC shall each advise DLA, in writing, of their respective positions on the request. If EPA or TDEC does not concur with the requested extension, it shall include in its statement of nonconcurrence an

explanation of the basis for its position. Any failure by EPA or TDEC to respond in writing within ten (10) Days shall be deemed a concurrence with the request for an extension.

E. If there is consensus among the Parties that the requested extension is warranted, DLA shall extend the affected Deadline or schedule accordingly. If there is no consensus among the Parties as to whether all or part of the requested extension is warranted, the Deadline or schedule shall not be extended except in accordance with a determination resulting from the dispute resolution process.

F. Within ten (10) Days of receipt of a statement of nonconcurrence with the requested extension, DLA may request dispute resolution. If DLA does not invoke dispute resolution within ten (10) days of receipt of a statement of nonconcurrence, then DLA shall be deemed to have accepted the statement of nonconcurrence and the existing Deadline or schedule shall remain in effect.

G. A timely and good faith request for an extension shall toll any assessment of stipulated penalties or application for judicial enforcement of the affected Deadline or schedule until a decision is reached on whether the requested extension will be approved. If dispute resolution is invoked and the requested extension is denied, stipulated penalties may be assessed and may accrue from the date of the original Deadline or schedule. Following the grant of an extension, an assessment of stipulated penalties or an application for judicial enforcement may be sought only to compel compliance with the Deadline or schedule as most recently extended.

H. It shall not be grounds for an extension of time if DLA has not provided a copy of this Agreement to its agents, employees and/or response action contractor(s) for the Site and a delay is caused by failure to provide a copy of this Agreement.

#### XXIII. FORCE MAJEURE

A. Force Majeure shall mean any event arising from causes beyond the control of a Party that causes a delay in or prevents the performance of any obligation under this Agreement. Examples of events that may constitute a Force Majeure include, but are not limited to, acts of God; fire; war; insurrection; civil disturbance; explosion; unanticipated breakage or accident to machinery, equipment or lines of pipe despite reasonably diligent maintenance; adverse weather conditions that could not be reasonably anticipated; unusual delay in transportation; restraint by court order or order of public authority; inability

to obtain, at reasonable cost and after exercise of reasonable diligence, any necessary authorizations, approvals, permits or licenses due to action or inaction of any governmental agency or authority other than the Party claiming the Force Majeure; or delays caused by compliance with applicable statutes or regulations governing contracting, procurement or acquisition procedures, despite the exercise of reasonable diligence.

B. Depending on the facts, Force Majeure may also include any strike or labor dispute not within the control of the Parties affected thereby and, for EPA and DLA only, insufficient availability of appropriated funds which have been diligently sought, if DLA made timely request for such funds as part of the budgetary process as set forth in Section XXXII (Funding) of this Agreement. TDEC does not agree that lack of funding can ever constitute a Force Majeure.

C. The listing of examples of events that may constitute a Force Majeure does not create a presumption that such events will in every instance be a Force Majeure. The Parties shall have the right to invoke dispute resolution as to whether or not any particular event constitutes a Force Majeure and/or to contend that any particular event does not constitute Force Majeure in any action brought to enforce this Agreement.

#### XXIV. STIPULATED PENALTIES

A. In the event that DLA fails to submit an adequate Primary Document as identified in Section XV (Consultation Process for Primary and Secondary Documents) and in Section XXI (Schedules for Document Submittal) to the EPA or TDEC pursuant to the appropriate schedule or Deadline in accordance with the requirements of this Agreement, or fails to comply with a term or condition (including any Deadlines or schedules for Work under this Agreement) which relates to a CERCLA response action, DLA may be assessed a stipulated penalty. A stipulated penalty may be assessed in an amount not to exceed \$5,000 (total amount of EPA and TDEC assessment) for the first week, or part thereof, and \$10,000 (total amount of EPA and TDEC assessment) for each additional week (or part thereof) for which a failure set forth in this Section occurs.

B. Upon determining that DLA has failed in a manner set forth in Subsection A, EPA and/or TDEC shall so notify DLA in writing. If the failure in question is not already subject to dispute resolution at the time such notice is received, DLA shall have thirty (30) Days after receipt of the notice to invoke dispute resolution on the question of whether the failure did in fact occur. DLA shall not be liable for the stipulated penalty assessed by EPA and/or TDEC if the failure is determined, through the dispute resolution process, not to have

occurred. No assessment of a stipulated penalty shall be final until the conclusion of any dispute resolution procedures related to the assessment of the stipulated penalty, if invoked.

C. The DLA annual reports required by Section 120(e)(5) of CERCLA, 42 U.S.C. Section 9620(e)(5) shall include, with respect to each final assessment of a stipulated penalty against DLA under this Agreement, each of the following:

1. A statement of the facts and circumstances giving rise to the failure;
2. A statement of any administrative or other corrective action taken at the relevant Facility or a statement of why such measures were determined to be inappropriate;
3. A statement of any additional action taken by or at the Facility to prevent recurrence of the same type of failure; and
4. The total dollar amount of the stipulated penalty assessed for the particular failure.

D. Stipulated penalties assessed by EPA pursuant to this Section shall be payable to the Hazardous Substance Response Trust Fund only in the manner and to the extent expressly provided for in Acts authorizing funds for, and appropriations to, the DoD.

E. Stipulated penalties assessed by TDEC pursuant to this Section shall be payable to the Tennessee Remedial Action Fund.

F. In no event shall this Section give rise to a stipulated penalty in excess of the amount set forth in Section 109 of CERCLA, 42 U.S.C. Section 9609.

G. This section shall not affect DLA's ability to obtain an extension of a Deadline or schedule pursuant to Section XXII (Extensions) of this Agreement.

H. Nothing in this Agreement shall be construed to render any officer or employee of the DoD personally liable for the payment of any stipulated penalty assessed pursuant to this Section.

#### XXV. RESOLUTION OF DISPUTES

A. Except as specifically set forth elsewhere in this Agreement, if a dispute arises under this Agreement, the procedures of this Section shall apply.



**B. Informal Resolution:**

1. Within thirty (30) Days after: (1) issuance of a draft final Primary Document pursuant to Section XV (Consultation Process for Primary and Secondary Documents) of this Agreement or; (2) any action which leads to or generates a dispute, any Party may invoke informal dispute resolution.

2. All Parties to this Agreement shall make reasonable efforts to informally resolve disputes at the Project Manager or immediate supervisor level before invoking the formal dispute resolution procedures set forth below. During this informal dispute resolution process, the Parties shall meet as many times as necessary to discuss and attempt resolution of the dispute. Upon determination by any Party that the dispute cannot be resolved, and notification to the other Parties, the Party may invoke formal dispute resolution as provided for in Subsection C.

**C. Formal Resolution:**

1. If the Parties are unable to resolve the dispute in the informal dispute resolution process set forth in Subsection B., the disputing Party shall submit to the other Parties a written statement of dispute setting forth the nature of the dispute, the Work affected by the dispute, the disputing Party's position with respect to the dispute and the information the disputing Party is relying upon to support its position. The date of the written statement of dispute shall serve as the date for initiation of formal dispute.

2. The Dispute Resolution Committee (DRC) will serve as a forum for resolution of disputes for which Agreement has not been reached through informal dispute resolution. The Parties shall each designate one individual and an alternate to serve on the DRC. The individuals designated to serve on the DRC shall be employed at the policy level (Senior Executive Service (SES) or equivalent) or be delegated the authority to participate on the DRC for the purpose of dispute resolution under this Agreement. The EPA representative on the DRC is the Waste Management Division Director of EPA's Region IV. DLA's designated member is the Commander of DDMT. TDEC's designated member is the Director of the Division of Superfund. Written notice of any delegation of authority from a Party's designated representative on the DRC shall be provided to all other

Parties pursuant to the procedures of Section XXXI (Written Notification Procedures) of this Agreement.

3. Following elevation of a dispute to the DRC, the DRC shall have twenty-one (21) Days to unanimously resolve the dispute and issue a written decision. If the DRC is unable to unanimously resolve the dispute within the twenty-one (21) Day period, the written statement of dispute shall be forwarded within seven (7) Days after the close of the twenty-one (21) Day resolution period to the Senior Executive Committee (SEC) for resolution.

4. The SEC will serve as the forum for resolution of disputes for which Agreement has not been reached by the DRC. The EPA representative on the SEC is the Regional Administrator of EPA's Region IV. The DLA's representative on the SEC is the Staff Director, Environment and Safety Policy Office. The TDEC representative is the Assistant Commissioner for Environment of the Department of Environment and Conservation. The SEC members shall, as appropriate, confer, meet, and exert their best efforts to resolve the dispute and issue a written decision signed by all Parties. If the SEC is unable to unanimously resolve the dispute within twenty-one (21) Days, EPA's Regional Administrator shall issue a written position on the dispute. The Director of DLA or the Commissioner of TDEC may, within twenty-one (21) Days of the Regional Administrator's issuance of EPA's position, issue a written notice elevating the dispute to the Administrator of EPA for resolution in accordance with all applicable laws and procedures. In the event that neither the Director of DLA nor the Commissioner of TDEC elects to elevate the dispute to the Administrator within the designated twenty-one (21) Day elevation period, DLA and TDEC shall be deemed to have agreed with the Regional Administrator's written position with respect to the dispute.

5. Upon elevation of a dispute to the Administrator of EPA pursuant to Subsection C(4), the Administrator or her designee will review and resolve the dispute within twenty-one (21) Days. Upon request, and prior to resolving the dispute, the EPA Administrator or her designee shall meet and confer with the Director of DLA or the Deputy Under Secretary of Defense for Environmental Security and the Commissioner of TDEC to discuss the issue(s) under dispute. If any of the Parties are unable to meet or confer during the twenty-one

(21) Day period, the Party shall provide written notice to the other Parties and request an extension under Section XXII (Extensions). Upon resolution, the Administrator or her designee shall provide all Parties with a written final decision setting forth resolution of the dispute. The Administrator may designate only EPA's Assistant Administrator for Enforcement to review and resolve disputes pursuant to this Subsection.

6. The pendency of any dispute under this Section shall not affect DLA's responsibility for timely performance of the Work required by this Agreement, except that the time period for completion of Work affected by such dispute may be extended, pursuant to Section XXII (Extensions), for a period of time usually not to exceed the actual time taken to resolve any good faith dispute in accordance with the procedures specified herein. All elements of the Work required by this Agreement which are not affected by the dispute shall continue and be completed in accordance with the applicable Deadline or schedule.

7. When dispute resolution is in progress, Work affected by the dispute will immediately be discontinued if the Waste Management Division Director for EPA's Region IV requests, in writing, that Work related to the dispute be stopped because, in EPA's opinion, such Work is inadequate or defective, and such inadequacy or defect is likely to yield an adverse effect on human health or the environment, or is likely to have a substantial adverse effect on the remedy selection or implementation process. To the extent possible, any Party seeking a Work stoppage shall consult with the other Parties prior to initiating a Work stoppage request. After stoppage of Work, if any Party believes that the Work stoppage is inappropriate or may have potential significant adverse impacts, the Party may meet with the other Parties to discuss the Work stoppage. Following this meeting, and further consideration of the issues, EPA's Waste Management Division Director will issue, in writing, a final decision with respect to the Work stoppage. The final written decision of the Division Director may immediately be subjected to formal dispute resolution. Such dispute may be brought directly to either the DRC or the SEC, at the discretion of the Party requesting dispute resolution.

8. Within twenty-one (21) Days of resolution of a dispute pursuant to the procedures specified in this Section DLA shall incorporate

the resolution and final determination into the appropriate plan, schedule or procedures and proceed to implement this Agreement according to the amended plan, schedule or procedures.

9. Resolution of a dispute pursuant to this Section of the Agreement constitutes a final resolution of such dispute arising under this Agreement. All Parties shall abide by all terms and conditions of any final resolution of dispute obtained pursuant to this Section of the Agreement.

#### XXVI. SAMPLING AND DATA QUALITY AND AVAILABILITY

A. The Parties shall provide as soon as possible, but no later than (90) Days after collection, quality assured results of sampling, tests or other data generated by such Party, or on their behalf, with respect to the implementation of this Agreement.

B. The Parties shall use field and laboratory procedures which are presented in the following EPA guidance documents. All such procedures shall be performed in accordance with the approved quality assurance and quality control procedures described in the EPA Region IV Environmental Compliance Branch Standard Operating Procedures and Quality Assurance Manual (ECBSOPQAM) (January, 1991) throughout all sample collection and analysis activities:

1. ECBSOPQAM (January 1991);
2. Field Screening Methods Catalogue User's Guide (EPA/540/2-88/005, as amended);
3. RCRA Ground Water Monitoring Technical Enforcement Guidance Document (OSWER-9950.1, as amended);
4. Compendium of Superfund Field Operations Methods: Volumes 1 & 2 (EPA/540/P-87/001b, as amended);
5. Compendium of ERT Surface Water and Sediment Sampling Procedures (EPA/540/P-91/005, as amended);
6. Compendium of ERT Surface Soil Sampling and Surface Geophysics Procedures (EPA/540/P-91/006, as amended);
7. Compendium of ERT Groundwater Sampling Procedures (EPA/540/P-91/007, as amended);
8. Compendium of ERT Waste Sampling Procedures (EPA/540/P-91/008, as amended);
9. Compendium of ERT Toxicity Testing Procedures (EPA/540/P-91/009, as amended);
10. Data Quality Objectives for Remedial Response Activities:

Volumes 1 & 2 (OSWER-9355.0-7B, March 1987)

11. Test Methods for Evaluating Solid Waste, Current Edition, GPO  
#955-001-00000-1, EPA #SW-846.

Any deviation from the above referenced procedures shall be submitted and approved as part of the RI/FS Work Plan.

C. At the request of any Party the sampling Party shall allow split samples to be taken by any other Party during sample collection conducted during the implementation of this Agreement. Except for sampling performed during the course of routine compliance inspections, the Project Manager obtaining the sample shall notify the other Project Managers not less than twenty-one (21) Days in advance of any sample collection to the maximum extent practicable. If it is not possible to provide twenty-one (21) Day notification, the Project Manager shall notify the other Project Managers as soon as possible after becoming aware that a sample(s) will be collected.

D. All data and studies generated under this Agreement shall be managed and presented in accordance with an approved Data Management Plan (DMP) to be prepared by DLA and submitted to EPA and TDEC for review in accordance with Section XV (Consultation Process for Primary and Secondary Documents) and the approved SMP.

#### XXVII. SITE ACCESS

A. EPA, TDEC and/or their authorized representatives, shall have authority to enter the Site at all reasonable times for purposes consistent with this Agreement including but not limited to:

1. Inspecting records, operating logs, contracts and other documents relevant to implementation of this Agreement;
2. Reviewing the progress of DLA, its response action contractors or lessees in implementing this Agreement;
3. Gathering samples and conducting such analyses of those samples as is necessary to implement this Agreement; and
4. Verifying the data submitted to EPA and TDEC by DLA.

B. Upon request for access, EPA and TDEC shall present proper credentials. However, the rights to such access by EPA and TDEC shall be subject to those statutes and regulations as may be necessary to protect national security, including DLA security regulations, DLAR 5705.1 and DLAM 5710.1. DLA agrees to notify EPA and TDEC of any restricted area that would relate to the Work to be

performed pursuant to this Agreement. DLA shall provide an escort whenever EPA and TDEC require access to restricted areas of DLA for purposes consistent with the provisions of this Agreement. Before using any camera, sound or other electronic recording device at DLA, EPA and TDEC shall request permission of the DLA Project Manager. DLA shall not unreasonably withhold such permission.

C. Consistent with Federal statutes and regulation, should DLA determine it will be necessary to deny access to the Site, DLA shall provide an explanation within forty-eight (48) hours of the reason for the denial and, to the extent possible, provide a recommendation for accommodating the requested access in an alternative manner. The Parties agree that this Agreement is subject to Section 120(j), of CERCLA, 42 U.S.C. Section 9620(j).

D. To the extent that access is required to areas of the Site presently owned by or leased to parties other than DLA, DLA agrees to initiate negotiations and exercise any authority it may have to obtain access pursuant to Section 104(e) of CERCLA, 42 U.S.C. Section 9604(e), from the present owners and/or lessees within thirty (30) calendar Days after the relevant documents which require access are finalized. DLA shall use its best efforts to obtain access Agreements which shall provide reasonable access to the authorized representatives of all Parties.

E. During negotiations with property owners on whose property DLA monitoring wells, pumping wells, treatment facilities or other response actions are to be located, DLA will request owners to notify the Parties by registered/return receipt mail, at least forty-five (45) Days prior to any conveyance or any other transfer of any interest in the property. DLA will use its best efforts to ensure the continued operation of the monitoring wells, treatment facilities, or other response actions installed pursuant to this Agreement.

F. Should DLA be denied access to non-Federal property, within thirty (30) calendar Days of the denial, it will advise the Parties of that denial and will describe those actions taken to gain access. Within sixty (60) Days or such shorter period as may be agreed to by the Parties, DLA shall submit appropriate modification(s) to affected Work Plans and schedules.

G. The DLA Project Manager may request the assistance of the other Parties' Project Managers in obtaining access to non-Federal property as appropriate.

A. Notwithstanding any other provision of this Agreement, DLA retains the right, consistent with Executive Order 12580, to conduct such emergency actions as may be necessary to alleviate immediate threats to human health or the environment from the release or threat of release of hazardous substances, pollutants, constituents or contaminants at or from the Site. Such actions may be conducted at any time, either before or after the issuance of the ROD, and shall be conducted in accordance with all applicable laws and the Permit. Consistent with 10 U.S.C. Section 2705, DLA shall provide EPA, TDEC and local officials with an adequate opportunity to timely review and comment on any proposal by DLA to carry out response actions with respect to any discovery of releases or threatened releases of hazardous substances creating an imminent and substantial endangerment and before undertaking such response actions. The preceding sentence does not apply if the action is an emergency removal taken because of imminent and substantial endangerment to human health or the environment and consultation would be impractical.

B. DLA shall provide the other Parties with oral notice as soon as possible but no later than the following business day after DLA determines that an emergency action is necessary due to an imminent and substantial endangerment to human health, welfare or the environment. In addition, within seven (7) Days of initiating such action, DLA shall provide written notice to the other Parties explaining why such action is or was necessary to abate an imminent and substantial endangerment. Promptly thereafter DLA shall provide the other Parties the written basis (factual, technical, scientific) for such action and any available supporting documents. Upon completion of such an emergency action, DLA shall notify the other Parties in writing that the emergency action has been implemented. Such notice shall state whether, and to what extent, the emergency action varied from that described in the prior written notice provided pursuant to this section.

C. An authorized DLA Official shall order a temporary cessation of Work (of either his own volition or at the request of an EPA or TDEC Project Manager) in order to respond to a situation creating an imminent and substantial endangerment to human health, welfare and the environment.

D. In the event that any Party requests a cessation of Work, the Parties agree that DLA shall immediately discontinue Work and toll relevant Deadlines for such period of time as needed to take appropriate action, to abate the danger. Within twenty-four (24) hours thereafter, the Project Manager for the Party requesting the cessation of Work shall provide the other Project Managers with

a written notification which shall include the reason for ceasing Work, the authority under which the Party is acting to request the cessation and the signature of the authorizing official. Any dispute regarding the existence of an imminent and substantial endangerment or any action necessary to abate such condition will be resolved pursuant to Section XXV (Resolution of Disputes) of this Agreement.

E. This Section shall not be construed to relieve DLA from compliance with State and Federal notice requirements applicable to releases.

#### XXIX. CONFIDENTIAL INFORMATION

A. DLA may possess information which is subject to a confidentiality claim as established by DLA pursuant to regulation found at 32 C.F.R. Part 55 2(b). In the event that DLA submits information to other Parties pursuant to this Agreement which is subject to a confidentiality claim, such information shall be clearly designated by DLA as confidential. If no confidentiality claim accompanies the information when it is submitted, the information may be made available to the public without further notice to DLA.

B. Upon receipt of material claimed as confidential, EPA shall review the confidentiality claim pursuant to 40 C.F.R. Part 2, and shall make an independent confidentiality determination. DLA prior confidentiality determination shall be relevant to, but shall not control, EPA's confidentiality determination.

C. In the event that EPA determines that information submitted by DLA pursuant to this Agreement contains confidential business information ("CBI"), EPA shall manage such information according to EPA procedures for the management of CBI.

D. In the event that EPA determines that information submitted by DLA pursuant to this Agreement does not contain CBI as established pursuant to 40 C.F.R. Part 2, the Parties to this Agreement recognize that the conflicting confidentiality determinations made by EPA and DLA give rise to a unique inter-agency dispute. Therefore, in the event of such conflicting determinations, EPA and DLA agree to jointly elevate the resulting dispute to their respective offices of General Counsel for assistance in resolving the dispute. The Parties agree to abide by the final inter-agency resolution of the dispute resulting from such elevation, including appropriate management of the information in question in accordance with the resolution of the dispute.

E. Nothing in this Agreement shall serve as a limitation on DLA's right



to classify information for national security purposes pursuant to the national security provisions referenced in Section 120(j)(2) of CERCLA, 42 U.S.C. Section 9620(j)(2), or to seek Site-specific Presidential orders under Section 120(j)(1) of CERCLA, 42 U.S.C. Section 9620(j)(1). Except as otherwise provided by Section 120(j)(1) of CERCLA, 42 U.S.C. Section 9620(j)(1), analytical data shall not be claimed as confidential by DLA.

F. If Federal law so requires, such information shall not be publicly disclosed by TDEC pursuant to applicable Tennessee laws. If no claim of confidentiality accompanies the information when it is submitted, the information may be made available to the public without further notice to DLA.

### XXX. CONVEYANCE OF TITLE

No conveyance of title, easement, or other interest in the property in which any containment system, treatment system, monitoring system or other response action(s) is installed or implemented pursuant to this Agreement shall be consummated by DLA without provision for continued maintenance of any such system or other response action(s) in accordance with Section 120(h) of CERCLA, 42 U.S.C. Section 9620(h) and all applicable Federal Property Management Regulations. At least ninety (90) Days prior to any such conveyance, DLA shall notify EPA and TDEC of the transfer of real property subject to this Agreement and the provisions made for the continued operation and maintenance of any response and/or corrective action(s) or systems installed or implemented pursuant to this Agreement and submit a Finding Of Suitability for Transfer (FOST) or Finding For Suitability for Lease (FOSL) as appropriate for concurrence by EPA and TDEC. DLA shall not transfer any real property from the Site except in compliance with Section 120(h) of CERCLA, 42 U.S.C. 9620(h) as amended by CERFA. This provision does not relieve DLA of its obligations under 40 C.F.R. Part 270 or applicable State Law.

### XXXI. WRITTEN NOTIFICATION PROCEDURES

A. Unless otherwise specified in this Agreement, the following shall be sent by certified-mail, return receipt requested; commercial overnight delivery service; facsimile machine or hand delivery to a Project Manager or his or her designated agent(s).

1. Any document provided pursuant to a schedule or Deadline identified in or developed under this Agreement.
2. Any required notice of Significant New Site Conditions/Significant New Information.

3. Any notice of dispute and response thereto submitted under Section XXV (Resolution of Disputes) of this Agreement.
4. Any request, and response thereto, for extensions under Section XXII (Extensions) of this Agreement.
5. Any notice of Force Majeure under Section XXIII (Force Majeure) of this Agreement.
6. Any notice of cessation of Work due to an imminent and substantial endangerment situation under Section XXVIII (Removals and Cessation of Work) of this Agreement.

B. The items listed in Subsection A above shall be transmitted as shown below:

1. To EPA:

U.S. Environmental Protection Agency Region IV  
Federal Facilities Branch  
Mail Code: 4WD-FFB  
ATTN: DDMT Remedial Project Manager  
345 Courtland St., N.E.  
Atlanta, Georgia 30365

2. To TDEC:

Tennessee Department of Environment and Conservation  
Division of Superfund  
2500 Mt. Moriah  
Suite E645  
Memphis, Tennessee 38115-1511

3. To DDMT:

Commander  
ATTN: DDMT-D  
Defense Depot Memphis Tennessee  
2163 Airways Blvd.  
Memphis, Tennessee 38114-5210

Information copies of the items listed in Subsection A above shall be delivered to:

Director of Installation Services  
ATTN: DDMT-W  
Defense Depot Memphis Tennessee  
2163 Airways Blvd.  
Memphis, Tennessee 38114-5210

U.S. Army Engineer Division - Huntsville  
ATTN: CEHND-PM-EP  
P.O. Box 1600  
Huntsville, AL 35807

TDEC - Division of Superfund  
401 Church Street  
4th Floor, Annex, L&C Building

XXXII. FUNDING

A. It is the expectation of the Parties to this Agreement that all obligations of DLA arising under this Agreement will be fully funded. DLA agrees to seek sufficient funding through the DOD budgetary process to fulfill its obligation under this Agreement.

B. In accordance with Section 120(e)(5)(B) of CERCLA, 42 U.S.C. Section 9620(e)(5)(B), the DOD shall include in its annual report to Congress the specific cost estimates and budgetary proposals associated with the implementation of this Agreement.

C. Any requirement for the payment or obligation of funds, including stipulated penalties, by the DLA established by the terms of this Agreement shall be subject to the availability of appropriated funds which have been diligently sought by DLA, and no provision herein shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. Section 1341.

D. If funds are not appropriated by Congress to fulfill DLA's obligations under this Agreement, EPA and TDEC reserve the right to initiate an action against any other person or to take any response action which would be appropriate absent this Agreement.

E. Funds authorized and appropriated annually by Congress under the "Environmental Restoration, Defense" appropriation (DERA) in the Department of Defense Appropriation Act for Environmental Security to DLA will be the source of funds for activities required by this Agreement consistent with Section 211 of SARA, 10 U.S.C. Chapter 160. In the event that Congress replaces or supplements DERA with another source of funding, any Party may submit a written request for modification under Section XXXV (Modification of Agreement) of this Agreement.

XXXIII. RECOVERY OF EXPENSES

A. Reimbursement of EPA's Expenses:

The Parties agree to amend this Section at a later date in accordance with subsequent resolution of the national issue of DOD/EPA cost reimbursement for CERCLA response costs incurred by EPA.

#### B. Reimbursement of Tennessee's Expenses:

DLA and TDEC agree to use the Defense State Memorandum of Agreement, DSMOA, for the reimbursement of services provided in direct support of DLA environmental restoration activities at the Site pursuant to this Agreement.

#### XXXIV. EFFECTIVE DATE OF AGREEMENT

Upon the close of the public comment period on this Agreement, the Parties shall execute the signature pages of this Agreement after considering all significant public comments received during the public comment period and modifying this Agreement as appropriate. The Parties shall return the executed signature pages to EPA. The Agreement shall become effective upon EPA's receipt of the executed signature pages from all of the Parties. Upon receipt of all signature pages, EPA shall immediately issue a notice letter to all Parties stating the date on which the Agreement became effective.

#### XXXV. MODIFICATION OF AGREEMENT

A. After execution of the Agreement, any Party may submit a written request for modification of this Agreement, including the SMP, to the other Parties.

B. This Agreement may be modified by the unanimous written Agreement of the Parties. If the Parties do not reach unanimous Agreement to the proposed modification they may enter into negotiations with a view toward resolving all points of disagreement. If, following negotiations, unanimity cannot be achieved, the modification will not occur. Modification proposals under this Agreement are not subject to Section XXV (Resolution of Disputes) of this Agreement.

C. The public notice procedures of Section 117 of CERCLA, 42 U.S.C. Section 9617, as well as any public participation requirements established in the approved CRP, shall be followed for all proposed major modifications of this Agreement. A modification shall be considered "major" upon designation as such by any Party. Public Notice is not required for minor modifications. Minor modifications shall be made informally, upon consent of the Project Managers, and confirmed in writing within ten (10) days following the consent of the Project Managers. Minor modifications shall be designated by the Parties and shall be limited to ministerial, editorial, or other such insignificant changes to this Agreement, for example:

1. Corrections or changes in addresses or telephone numbers; and

2. The addition or deletion of Solid Waste Management Units requiring further investigation as listed in the Permit.

D. The Parties expressly acknowledge that this Agreement shall be modified, as appropriate, to incorporate the conditions of and otherwise address the authorities and the requirements of the Federal Facilities Compliance Act of 1992. Such modification may be initiated by any Party.

#### XXXVI. TERMINATION OF AGREEMENT

A. When DLA determines that the Work set forth in this Agreement has been completed in accordance with the requirements of this Agreement, it shall so advise EPA and TDEC in writing and shall propose that the Agreement be terminated on a showing that the Agreement's objectives have been satisfied. This Agreement shall be deemed satisfied and terminated upon receipt by DLA of written notice from EPA and TDEC that DLA has completed its obligations under the terms of this Agreement.

B. If EPA/or TDEC denies or otherwise fails to grant a termination notice within sixty (60) Days of receiving a written proposal from DLA, the Party denying termination shall provide a written statement of the basis for its denial and describe the actions necessary to grant a termination notice. If the Parties do not reach consensus on a proposed termination of the Agreement, the issue shall be resolved through Section XXV (Resolution of Disputes).

#### XXXVII. TOTAL INTEGRATION

There are no promises, verbal understandings or other Agreements of any kind pertaining to this Agreement or its attachments herein other than specified herein. This Agreement shall constitute the entire integrated agreement of the Parties.

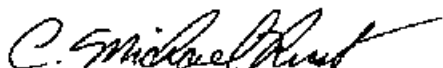
XXXIII. AUTHORIZED SIGNATURES

103 53

Each of the undersigned representatives of the Parties certifies that he or she is fully authorized by the Party he or she represents to enter into the terms and conditions of this Agreement and to legally bind such Party to this Agreement.

IT IS SO AGREED:

By



C. MICHAEL RUST  
Colonel, USA  
Commander  
Defense Depot Memphis, TN

17 JAN 95

Date

By

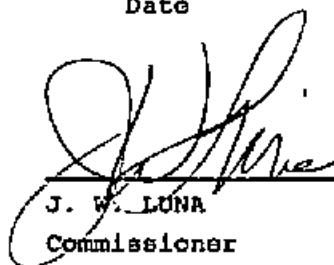


for JOHN H. HANKINSON, JR.  
Regional Administrator  
Environmental Protection  
Agency, Region IV

3-6-95

Date

By



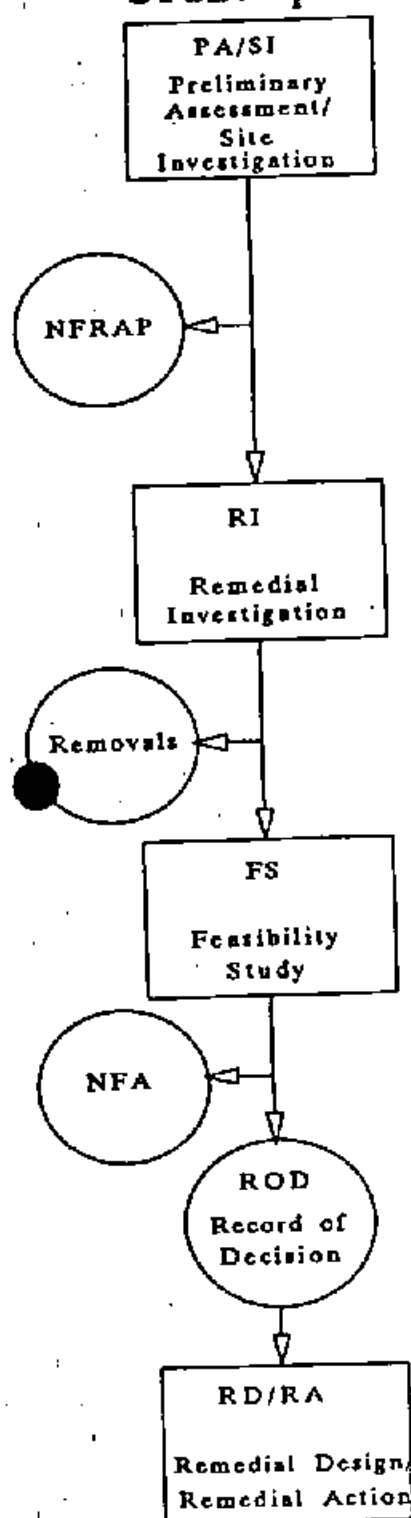
J. W. LUNA  
Commissioner  
Tennessee Department of  
Environment and Conservation

1/9/95

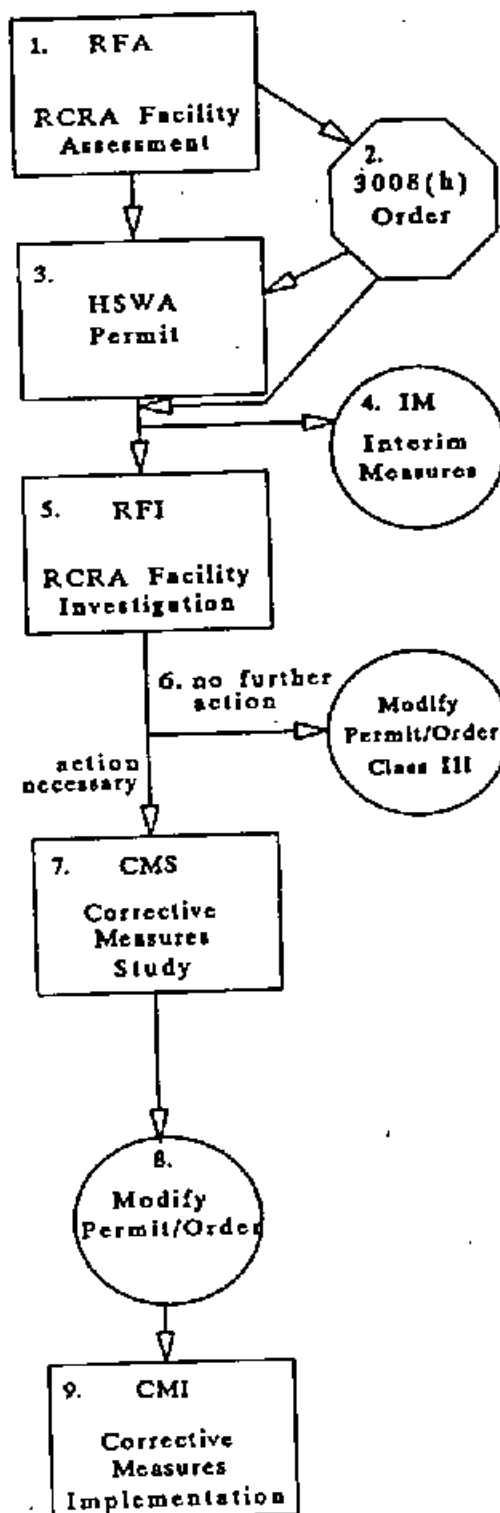
Date

APPENDIX A  
RCRA-CERCLA TERMINOLOGY

## CERCLA Counterpart



## RCRA



1. Completion of:
  - RCRA Part B Application
  - SWMU Information Report
  - VSI (Visual Site Inspection)
  - RFA Sampling & Analysis (optional)

2. A 3008(h) Order may be issued before, during or after the RFA

3. Include:
  - A list of SWMUs identified in RFA
  - A list of SWMUs requiring an RFI
  - A list of NFA SWMUs at this time
  - A compliance schedule for RFI plans and reports
  - Interim Measures required or approved as necessary

4. - Required when imminent hazard exists
  - Required when EPA deems IM necessary
  - Facility implements current or planned corrective measures

5. - Facility submits RFI Workplan
  - EPA/State reviews/approves Workplan
  - Facility implements investigation
  - Facility develops RFI Report
  - EPA/State review RFI Report and determines need for Corrective Measures Study

6. - If no further action (NFA) is needed, the Permit/Order is modified to include this decision
  - Public involvement
  - Supporting evidence

7. - Determination of cleanup levels
  - Facility submits CMS Workplan
  - EPA/State reviews/approves Workplan
  - Facility identifies and evaluates alternative remedies
  - Includes NFA/Risk Assessment
  - Facility recommends Corrective Measures
  - EPA/State reviews/approves Corrective Measures
  - Facility develops CMS Report

8. - Permit Modification for Remedy
  - Public involvement
  - Incorporation of approved Corrective Measures

9. - Facility design and implementation of approved Corrective Measures



APPENDIX B  
EXISTING STUDIES AND REPORTS

B-1

In conformance with DLA, EPA and/or TDEC environmental and regulatory programs, the following technical studies have been conducted at the site:

A. 1981: DLA and the United States Army Toxic and Hazardous Materials Agency (USATHAMA) conducted an Installation Assessment (IA) to identify previously used waste disposal areas and waste management practices pursuant to the Installation Restoration Program. The IA indicated that some past waste management practices were not compatible with waste management practices in use at the time of the inquiry. The study identified areas where hazardous materials might have been used, stored, treated, or disposed of at the site. Based on the findings of this assessment, USATHAMA recommended that DLA conduct a field survey.

B. 1982: The United States Army Environmental Hygiene Agency (USAEHA) conducted Geohydrologic Study No. 38-26-D195-83 to characterize the geohydrologic setting, and to identify and monitor sources of potential groundwater contamination. The study identified two areas of the Site as having the potential for ground water contamination: Dunn Field and the Pentachlorophenol (PCP) Dip Vat. The study determined the Dunn Field area had greater potential contamination than the PCP Dip Vat. DLA installed, logged and sampled six monitoring wells in the Dunn Field location.

C. 1985: USAEHA conducted an Environmental Audit of DDMT's waste management disposal practices. That audit revealed the presence of damaged containers of acids, bases, solvents and cleaners in the vicinity of Building 873. These inspections also identified spill areas and potentially contaminated soil in an area adjacent to this building. DLA contracted to reclaim and repackage ("recoup") containers of useable goods. Also, Army personnel identified a second area of needed recoupment and contracted to repackage or repour the contents into new containers in the "Flammable Storage Area." Approximately eight hundred (800) fifty-five (55) gallon drums were recouped in this open storage area and then returned to their original location for storage.

D. 1985: USAEHA performed an investigation of the Pentachlorophenol (PCP) Dip Tank Building (Building 737). This investigation revealed the presence of appreciable levels of chlorinated dioxins and furans. DDMT personnel treated wood products, especially pallets, in Building 737 commencing in 1952 by using the product "Pol-Nu" which consisted of approximately 11% PCP. Use of the PCP vat ceased on a regular basis in July 1971, when the purchase of treated pallets from suppliers became more economical. In 1985, DLA officials contracted to containerize and remove the liquid waste product; sample and investigate

surrounding soil, environs, and building surfaces; and remove contaminated soils as necessary to mitigate environmental and health hazards. Also in 1985, United States Army initiated an extensive sampling program to identify the magnitude and extent of the contamination. The contamination was ultimately discovered to extend to depths below the surface and required excavation. Therefore, the U.S. Army initiated a clean-up of the PCP dip vat area in August 1985. Contaminated soils were excavated to a depth of ten (10) feet and the liquid PCP source of contamination was removed. The contaminated soil removed was disposed of to the satisfaction of EPA, TDEC and DLA in accordance with State and Federal regulations. By verbal agreement with the U.S. Army and TDEC officials, removal of residual contamination below ten (10) feet was not required because this residual contamination consisted only of the hepta and octa isomers of dioxin that: had very low toxicity; did not impact groundwater supplies; were not mobile in soil; and were present only at very low levels. The excavated area was backfilled with approximately six hundred fifty (650) cubic yards of native backfill and capped with over four hundred eighty-nine (489) tons of crushed rock (gravel). The excavated material (contaminated soil/debris) was packaged in a combination of seven hundred twenty-five (725) fiber drums (with overpacking by fifty-five (55) gallon steel drums) and roll-off containers. This material was stored onsite in two (2) separate staging areas (under approval granted by both the EPA and TDEC) until Spring 1988 when it was transported and disposed of at an approved hazardous waste disposal facility. All parties involved in the removal action agreed that no further action was required to protect human health or the environment.

E. 1986: USAEHA performed a Water Quality Biological Study No. 32-24-0733-86: Investigation of Fire Reservoir; Defense Depot, Memphis, Tennessee.

F. 1989-90: DLA initiated an IRP investigation of several known and suspected sources of contamination. The Final Work Plan for this effort was provided to EPA in April 1989. The document entitled "Final Remedial Investigation (RI) Report" was provided in August 1990, and the document entitled "Final Feasibility (FS) Report" was submitted in September 1990. The Report indicated that the Upper Fluvial Aquifer was contaminated and that additional investigation was needed to fully identify the contaminant source areas and delineate the contaminant plume.

G. August 1990: Following review of the "Final RI/FS Report", EPA directed DLA to submit a plan for additional investigation in order to complete the RFI required under Condition II.E.1. of the Permit. EPA and TDEC also determined that

there was a possibility that the groundwater contamination identified beneath Dunn Field could adversely impact the Memphis drinking water supply. DLA proposed an interim remedial action to treat water in Dunn Field to initiate cleanup before selection of the final Remedial Action (RA). EPA and TDEC agreed that performance of an Interim Remedial Action (IRA) on the contaminated groundwater in the vicinity of Dunn Field in accordance with Part II.F.1.a. of the Corrective Action Permit was appropriate.

H. October 1991: DLA submitted a Draft Interim Measures (IM) Plan to conduct a pump test to EPA and TDEC for review. Following receipt of the Parties' comments, DLA revised and resubmitted this document as a Pump Test Work Plan aimed at collecting the information needed to characterize the upper aquifer and design an interim response action to address the contaminated ground water beneath Dunn Field. A Final Pump Test Work Plan has been submitted and approved by EPA. Field data collection for the pump test has been completed.

I. November 1991: DLA submitted a document entitled "Draft Follow-on Work Plan" (Follow-on Work Plan) to the EPA and TDEC in order to satisfy the Permit requirement to submit an RFI Work Plan. This work plan proposes the field investigations needed to address data gaps identified in previous investigations. This plan also coordinated the list of Solid Waste Management Units (SWMUs) identified in the RCRA Facility Assessment and the Corrective Action Permit with those areas investigated in the August 1990 "RI/FS" (IRP investigation), to ensure that all potential sources of contamination were identified, and prioritized for further investigation. In March 1993, EPA and TDEC provided review comments to DLA on this work plan. This work plan was revised in an effort to meet the concerns of EPA and TDEC as agreed in a March 1993 technical review meeting at EPA Region IV. The revised work plan was resubmitted to EPA and TDEC in June 1993. Upon receipt of EPA and TDEC comments on this work plan, the Parties met to discuss how these comments would be incorporated into the revised work plan. The Parties further agreed to divide the sites at DDMT into four Operable Units. In January 1994, DDMT submitted all generic RI/FS work plan documents and the Operable Unit-specific Field Sampling Plan for Operable Unit 1. Draft Field Sampling Plans for subsequent Operable Units are being submitted at thirty day intervals. The review process outlined for Primary documents in this Agreement will be followed for the review, revision and finalization of these RI/FS Work Plans.

J. January 1992: DLA submitted the Final Pump Test Technical Memorandum to the EPA and TDEC. This report describes the results from an aquifer pump test performed at Dunn Field in September 1992. Aquifer characteristics obtained from

this pump test were used to develop the response action alternatives presented in the Draft Engineering Report.

K. January 1992: DLA submitted a Draft Engineering Report to the EPA and TDEC. This Engineering Report proposed and evaluated six response action alternatives for addressing contaminated groundwater in the fluvial aquifer beneath Dunn Field. Following EPA comment on this document, DLA revised and resubmitted the Engineering Report in September 1993. EPA is in the process of finalizing comments on this revision.

L. January 1992: DLA submitted a Draft Environmental Assessment to the EPA and TDEC. The Environmental Assessment addresses the potential environmental impacts that the IRM may pose to Dunn Field, the community of Memphis, and the nearby receptors. Following EPA comment on this document, DLA revised and resubmitted the Environmental Assessment in September 1993. EPA is in the process of finalizing comments on this revision.

M. Reports: In light of the foregoing the Parties agree that DLA has prepared the following reports. Except as indicated below, such reports have not been reviewed or approved by EPA and TDEC:

1. Installation Assessment of Hazardous Materials (USATHAMA March 1981).
2. Geohydrologic Evaluation (AEHA, July 1982)
3. Summary Report, On Site Remedial Activities at Defense Depot Memphis, O.H. Materials Agency (February 1986)
4. Remedial Investigation/Feasibility Study Work Plan (Law Environmental 1989).  
(reviewed by EPA, TDEC)
5. Remedial Investigation of DDMT, Final Report. (August 1990 Law Environmental Inc.)  
(reviewed by EPA, TDEC)
6. Feasibility Study of DDMT, Law Environmental (Final Report September 1990).
7. Draft Interim Remedial Measures Work Plan (Engineering Science, Inc. October 1991).  
(reviewed by EPA, TDEC)
8. Draft Remedial Investigation/Feasibility Study Follow-on Work Plan (Engineering Science, Inc. November 1991).  
(reviewed by EPA, TDEC)
9. Draft Final Interim Measures Work Plan Engineering Science Inc.

(December 1991).

(reviewed by EPA, TDEC)

10. Final Pump Test Work Plan for DERC. (Engineering Science, July 1992).

(reviewed & approved by EPA, TDEC)

11. Draft Interim Remedial Measures Engineering Report, Engineering Science Inc. December 1992.

(reviewed by EPA, TDEC)

12. Draft Interim Remedial Measures Environment Assessment, Engineering Science Inc. January 1993.

(reviewed by EPA, TDEC)

13. Final Pump Test Technical Memorandum, Engineering Science Inc. January 1993.

APPENDIX C  
FY94 SITE MANAGEMENT PLAN

Defense Distribution Depot  
Memphis, Tennessee

# Site Management Plan



September 1994



When a final determination by the Parties is reached on whether to finalize the proposed Agreement in its original form, modify or withdraw the Agreement, EPA shall issue a responsiveness summary which addresses all public comments.

U.S. ENVIRONMENTAL PROTECTION AGENCY

BY: *John H. Hankinson, Jr.*  
John H. Hankinson, Jr.  
Regional Administrator,  
U.S. EPA Region IV

U.S. DEFENSE LOGISTICS AGENCY AT DEFENSE DISTRIBUTION DEPOT  
MEMPHIS, TENNESSEE

BY: *C. Michael Rust*  
C. Michael Rust  
Colonel, USA  
Commander  
Defense Distribution Depot Memphis, Tennessee

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

BY: *Edward H. Cole*  
Edward H. Cole  
Interim Commissioner  
Tennessee Department of Environment and Conservation

**RECEIVED**  
NOV 14 1994

\*\*\*\*CARBON COPY\*\*\*\*

DEPT. OF ENVIRONMENT AND CONSERVATION  
OFFICE OF GENERAL COUNSEL

4WD-FFB

EXPRESS MAIL

C. Michael Rust, Colonel, USA  
Commander  
Defense Distribution Depot; Memphis  
2163 Airways Blvd.  
Memphis, Tennessee 38114-5000

SUBJ: Letter of Intent (LOI) for Proposed Federal Facilities  
Agreement (FFA) for the Defense Distribution Depot  
Memphis, Tennessee (DDMT); EPA I.D. No. TN4 210 020 570

Dear Colonel Rust:

On November 3rd, 1994, the EPA Region 4 Regional Administrator signed three copies of the LOI for the proposed DDMT FFA. One original copy of the LOI is enclosed for your files. Currently, EPA is working with your staff and the staff of the Tennessee Department of Environment and Conservation (TDEC) to establish the dates for the public comment period and the FFA public meeting. When these dates are finalized, EPA will be responsible for publishing the public notice announcing those dates.

Please call me with any questions.

Sincerely yours,

Jon D. Johnston, Chief  
Federal Facilities Branch  
Waste Management Division

Enclosure

cc: Jordan English, TDEC  
E. Joseph Sanders, TDEC

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
UNITED STATES DEFENSE LOGISTICS AGENCY AT  
DEFENSE DISTRIBUTION DEPOT MEMPHIS, TENNESSEE  
AND  
TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

NOTICE OF INTENT TO EXECUTE THE FEDERAL FACILITY AGREEMENT  
FOR DEFENSE DISTRIBUTION DEPOT MEMPHIS, TENNESSEE

The U.S. Environmental Protection Agency (EPA), the U.S. Defense Logistics Agency (DLA) at Defense Distribution Depot Memphis, Tennessee (DDMT), and the Tennessee Department of Environment and Conservation (TDEC) declare their intent to execute the Federal Facility Agreement for the Defense Distribution Depot Memphis, Tennessee (Agreement).

Within fifteen (15) calendar days of the date of execution of this Letter of Intent to enter into this Agreement by all Parties, EPA shall (1) make copies of this Agreement and all appendices available to the public and (2) announce to the public the Parties' intent to execute this Agreement and the availability of this Agreement for public review and comment.

EPA shall accept comments from the public for a period of forty-five (45) calendar days after such announcement. The Parties shall schedule a public meeting to be held on this Agreement sometime during the public comment period. The public shall be given at least thirty (30) calendar days prior public notice regarding the date of this meeting. The Parties shall also prepare a written transcript or tape recording of the meeting, which shall become a part of the Administrative Record to be prepared by DLA under the terms of this Agreement.

Promptly upon the completion of the comment period, EPA shall transmit to the other Parties copies of all comments received within the comment period. The Parties shall review all such comments and, within thirty (30) calendar days of the close of the comment period, shall either determine that:

1. The proposed Agreement should be made effective in its present form, in which case the Agreement shall become effective upon written notification from EPA that the authorized representatives for all three Parties have executed the signature page; or

2. The public comments disclose facts or considerations which indicate that proposed Agreement is inappropriate, improper or inadequate and must be modified, in which case the Parties shall meet to modify the Agreement by mutual consent.

When a final determination by the Parties is reached on whether to finalize the proposed Agreement in its original form, modify or withdraw the Agreement; EPA shall issue a responsiveness summary which addresses all public comments.

U.S. ENVIRONMENTAL PROTECTION AGENCY

BY:

John H. Hankinson, Jr.  
for John H. Hankinson, Jr.  
Regional Administrator;  
U.S. EPA Region IV

U.S. DEFENSE LOGISTICS AGENCY AT DEFENSE DISTRIBUTION DEPOT  
MEMPHIS, TENNESSEE

BY:

C. Michael Rust  
C. Michael Rust  
Colonel, USA  
Commander  
Defense Distribution Depot Memphis, Tennessee

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

BY:

Edward H. Cole  
Edward H. Cole  
Interim Commissioner  
Tennessee Department of Environment and Conservation

APPENDIX D  
DEPARTMENT OF JUSTICE LETTER



Washington, DC 20530

December 16, 1993

James M. Carr  
Assistant Counsel  
Environment & Installations  
Defense Logistics Agency  
Cameron Station  
Alexandria, Virginia 22304-6100

Re: Federal Facility Agreement, Defense Distribution  
Depot Memphis Tennessee

Dear Mr. Carr:

This letter is in response to your request for an opinion as to the enforceability of a Federal Facility Agreement ("FFA") that is presently being negotiated by the Defense Logistics Agency, Region IV of the Environmental Protection Agency, and the State of Tennessee ("the State"). You have indicated that the State has asked for a written opinion from the Department of Justice that the agreement, when finalized, is binding and enforceable.

As you are aware, the Department of Justice generally does not become involved in FFA proceedings, leaving the negotiation of such agreements to the relevant federal and state agencies. In keeping with that policy, DOJ has neither participated in the negotiations nor reviewed any of the draft agreements concerning the Defense Distribution Depot Memphis Tennessee. Thus, we are not in a position to offer any legal opinion relating to the specific terms of that agreement.

As a general matter, however, FFA's are legally enforceable. The citizen suit provision of CERCLA, 42 U.S.C. § 9609(a)(1) and (a)(2), provides that "any person" may commence a civil action "against any person (including the United States and any other government instrumentality or agency . . .) who is alleged to be in violation of any standard, regulation, condition, requirement, or order which has become effective pursuant to this chapter (including any provision of an agreement under section 9620 of this title, relating to Federal facilities" or "against the President or any other officer of the United States . . . where there is alleged a failure of the President or of such other officer to perform any act or duty under this

chapter, including an act or duty under section 9620 of this title (relating to Federal facilities), which is not discretionary with the President or such other officer." "Person" is defined in 42 U.S.C. § 9601(21) to include "State" and "political subdivision of a State." In such a citizen suit, the district court has jurisdiction to enforce any provision of an agreement under section 9620, to order such action as may be necessary to correct the violation, and to order officers to perform non-discretionary duties, assuming that the other requirements of the citizen suit provision are met. 42 U.S.C. § 9659(c).

FFA's are specifically authorized by 42 U.S.C. § 9620(e). Accordingly, a State may enforce the terms of an FFA under the CERCLA citizen suit provision.

I hope that this letter is responsive to your inquiry. If you wish, you may disclose this letter to the State of Tennessee and append it to the Memphis Depot FFA if you so desire.

Sincerely,

Assistant Attorney General  
Environment and Natural Resources Division

By:

*Latitia J. Grishaw*  
Latitia J. Grishaw  
Chief, Environmental Defense Section

## TABLE OF CONTENTS

1. INTRODUCTION .....	2
1.1 Background Information .....	2
1.1.1 Regulatory Background .....	2
1.1.2 Purpose .....	2
1.1.3 Regular Updates .....	3
1.2 Site History .....	3
1.3 Installation Restoration Program .....	3
1.4 Regulatory Background .....	3
1.4.1 RCRA Part B Permit and Designation as a National Priority List Site .....	3
1.4.2 Federal Facility Agreement .....	4
1.4.3 Lead Agency/Support Agencies .....	4
1.5 Previous Studies .....	4
1.6 Overall Management Approach .....	4
1.7 Summary .....	6
2.0 OPERABLE UNIT GROUPINGS AND DESCRIPTION OF CURRENT CONDITIONS .....	6
2.1 Definition of the Four Operable Units .....	7
2.2 Nature and Extent of Contamination .....	8
2.2.1 OU-1, Dunn Field .....	8
2.2.2 OU-2, Southwest Quadrant of Main Installation .....	14
2.2.3 OU-3, Southeast Watershed .....	15
2.2.4 OU-4, North Central Area .....	19
2.2.5 Screening Sites .....	19
2.2.6 No Further Action Sites .....	19
3.0 OPERABLE UNIT SCHEDULING .....	19
4.0 GLOSSARY OF TERMS .....	24
REFERENCES .....	A-1
OPERABLE UNIT SCHEDULES .....	B-1



## 1. INTRODUCTION.

103 72

1.0.1 References. A complete list of references is found in Appendix A.

### 1.1 Background Information.

1.1.1 Regulatory Background. The requirement for the Site Management Plan (SMP) is identified in the Federal Facilities Agreement (FFA) signed by the Environmental Protection Agency (EPA), the State of Tennessee Department of Environment and Conservation (TDEC), and the Defense Distribution Depot Memphis Tennessee (DDMT). The FFA was entered into based on the requirement for an interagency agreement identified in the Superfund Amendments and Reauthorization Act (SARA), Section 120 (e) (2). In accordance with Section XXI (Schedules for Document Submittal) of the FFA, the FY94 SMP is attached to the FFA as Appendix C. Subsequent annual updates to the SMP shall be submitted under separate cover. Also in accordance with the FFA, the previous SMP shall remain in effect until the updated SMP is approved by all Parties.

1.1.2 Purpose. The purpose of this SMP is to outline the strategy for achieving the objectives of a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) investigation and remediation program. This program evaluates the potential for past releases of hazardous wastes and/or constituents to the environment from potential sites of contamination at this facility and implements remedial actions when necessary. The intent of the plan is to provide the following:

- (a) Actions deemed necessary to mitigate any immediate threat to public health or environmental quality.
- (b) A list of Operable Units (OUs) subject to the requirements of the FFA.
- (c) Prioritization and rationale for the OUs at DDMT.

(d) Activities and schedules for work planned during the current year and two subsequent years, including the submittal schedule for primary and secondary documents.

(e) Anticipated work projections for subsequent years.

**1.1.3 Regular Updates.** In accordance with the FFA, this plan will be updated by 1 February each year. This is the first submission of the SMP.

**1.2 Site History.** The installation presently known as DDMT was constructed in 1941. The facility was activated on January 26, 1942 as the Memphis General Depot, operating under the U.S. Army, the owner of the site. The Army operated the facility until 1962. In 1962 the Defense Logistics Agency (DLA) (then called the Defense Supply Agency) became the operator of the facility under permit from the Department of the Army and named it Defense Depot Memphis, Tennessee. In 1991, Defense Distribution Region Central (DDRC) was established to provide operation direction to several DLA distribution depots in the Central United States. In 1993, DDRC was disestablished and the site was named Defense Distribution Depot Memphis, Tennessee (DDMT). DDMT is a subordinate command under the Defense Distribution Region East (DDRE) located in New Cumberland, Pennsylvania.

**1.3 Installation Restoration Program.** The Department of Defense (DoD) developed the Installation Restoration Program (IRP) to evaluate and remediate the effects of past hazardous waste management and disposal practices at its facilities and to comply with the provisions of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended.

#### **1.4 Regulatory Background.**

**1.4.1 RCRA Part B Permit and Designation as a National Priority List Site.** DDMT was issued a RCRA Part B permit (No. TN4 210 020 570) by the U.S. EPA, Region IV, and the Tennessee Department of Environment and Conservation (TDEC) on 28 September 1990. Subsequently, in accordance with Section 120(d)(2) of the Comprehensive Environmental Response and

Liability Act, 42 U.S.C. 9620(d)(2), EPA prepared a final Hazard Ranking System (HRS) Scoring Package for DDMT. Based on the final HRS score of 58.06, EPA added DDMT to the National Priorities List (NPL) by publication in the Federal Register, 199 Federal Register 47180, on October 14, 1992. The SMP will outline the strategy and schedule for achieving the objectives of a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) investigation and remediation program that also meets the requirements of DDMT's RCRA Part B permit.

**1.4.2 Federal Facility Agreement.** DDMT has entered into a Federal Facility Agreement (FFA) between the Defense Logistics Agency, the EPA and TDEC. The agreement establishes a procedural framework and schedule for developing, implementing, and monitoring appropriate response actions at DDMT in accordance with existing regulations and achieving RCRA/CERCLA integration. As agreed to by the Parties, sites at DDMT have been grouped into four operable units and a number of screening sites which must be addressed under the CERCLA process. The Parties further agreed to designate additional Operable Units as appropriate to facilitate and expedite the response action process. As a result of DDMT's status as an NPL site, it was agreed that the investigation of all applicable sites would proceed under the CERCLA process for remediation (remedial investigation, feasibility study, proposed plan, record of decision, remedial design and remedial action).

**1.4.3 Lead Agency/ Support Agencies.** As established in the National Contingency Plan (40 CFR Part 300.120), the Department of Defense (DoD) is the lead agency at NPL sites involving Federal Facilities. Accordingly, EPA and TDEC have been identified as support agencies in this process.

**1.5 Previous Studies.** In conformance with DLA environmental programs, a number of technical studies have been conducted at DDMT. A summary of the results of the more pertinent studies is provided in Appendix B of the FFA.

**1.6 Overall Management Approach.** This SMP provides a management plan and tracking program for potential contamination sites identified at DDMT. The SMP describes each operable unit by site and Solid Waste Management Unit (SWMU) number (reference 11), and provides a brief discussion

concerning the results of previous studies. In addition, the SMP discusses and identifies the management and deliverables of those OUs undergoing RI/FS and RD/RA activities for the current and subsequent two fiscal years (FY94 - FY96) such as field work, data reports, and workplans. This SMP also projects the anticipated deliverables due during subsequent projected years (i.e., 1997, 1998, and 1999). The projected scheduling of the program tasks is shown through the signing of the Record of Decision and the published public notice. Detailed within this SMP are the program events to take place during FY94, FY95, and FY96, as well as the enforceable due dates for draft primary documents and target dates for secondary program documents.

1.6.1 It is the goal of DDMT to tailor the CERCLA Remedial Investigation/ Feasibility Study (RI/FS) process to allow prioritization of sites according to potential threat to human health and the environment. The process will focus on source identification, with delineation of soil/sediment, groundwater, and surface water contamination. Data will be continually assessed and sites evaluated to determine if contamination is present, if it presents a threat, if it has been delineated, and, finally, what further action is needed (e.g., delineation, Interim Remedial Measure, or evaluation of remedial alternatives). If initial data evaluation shows any contaminated media to be an immediate threat to human health or the environment, response actions (e.g., interim actions, removal actions) may be performed to mitigate this threat. If groundwater or surface water contamination is not judged to be an immediate threat, delineation may be performed on a larger scale by viewing local aquifer and surface water systems as an individual operable unit which may be impacted by several sites simultaneously.

1.6.2 Decisions concerning data assessment and actions to be taken will be made during Remedial Project Managers (RPM) meetings, which will include representatives from EPA, TDEC, and DDMT. These decisions will be documented in meeting summaries of the RPM meetings and finalized via formal, follow-up correspondence between the RPMs.

1.6.3 Through the use of the above approaches, the RI/FS process can be responsive to individual OU characteristics and technical requirements and will minimize delays between field actions.

1.7.1 DDMT has conducted several investigative studies and limited response activities on various areas of the installation to date. Previous investigative efforts have been conducted in an effort to provide adequate characterization of past releases, site identification, and identification of some potential contaminants of concern and potential pathways for human exposure to contamination. Future investigative plans involve filling data gaps to further define the extent of contamination, transport of contaminants, identification of all contaminants of concern, and characterization of the potential exposure pathways in all OUs.

1.7.2 A serious source of contamination that could result in widespread public exposure to contaminants from DDMT is presently the Dunn Field area of the installation (OU 1). Major efforts will be undertaken in the next phase of field work to fully define the extent of the groundwater plume, identify sources of contamination within Dunn Field, and characterize the thickness and continuity of the confining unit both on and off the installation. This additional investigative work has the highest priority over other OUs.

1.7.3 An Interim Remedial Action is being pursued to stop the off-site migration of the known groundwater contamination. A Focused Feasibility Study will be prepared for this action. The next phases of this project include the preparation of a proposed plan, a period of public review and comment, and then an Interim Record of Decision (ROD). Upon completion of the Interim ROD, DDMT will proceed with design and construction of the preferred alternative.

## 2.0 OPERABLE UNIT GROUPINGS AND DESCRIPTION OF CURRENT CONDITIONS.

2.0.1 All sites have been clustered into one of the following: four (4) OUs, a list of screening sites, and a list of no further action (NFA) sites. The scheduled work at these OUs is prioritized based on potential threat, schedule optimization, and task management. The OUs and relative prioritization were formulated at the January 1993 RPM meeting held at DDMT. General criteria used to generate the OUs are as follows:

- a. Geographic proximity of sites
- b. Similar contaminants of concern previously identified.
- c. Similar investigation methods.
- d. Scope and complexity of investigation.
- e. Results of previous site studies.
- f. Potential for off-site migration and exposure.
- g. Relative threat to the City of Memphis drinking water supply.
- h. Suspected mobility of contaminants.

2.0.2 The OUs may be re-defined as more data are collected and evaluated. Upon completion of analyses, screening sites will be either upgraded to determine extent of contamination or placed in the proposed NFA list for EPA/TDEC concurrence. The enforceable schedule for an existing OU into which the site is incorporated will not change unless mutually agreed to by the Parties. Upon establishment of a new OU, the OU schedule will become enforceable and will be added to the SMP.

2.0.3 Figure 2.1 shows the general geographic locations of the four OUs proposed for DDMT. A detailed map showing the locations of all sites will be provided in the Generic RI/FS Workplan for DDMT.

2.1. Definition of the Four Operable Units. Representatives of DDMT, U.S. EPA, and TDEC agreed during a technical meeting held January 1993 on four OUs to be addressed during future investigations. These representatives further agreed to designate additional OUs as appropriate to facilitate the response action process. The four OUs are listed below and are located within DDMT as shown in Figure 2.1.

- OU-1: Dunn Field
- OU-2: Southwest Quadrant, Main Installation
- OU-3: Southeast Watershed and Golf Course
- OU-4: North Central Area, Main Installation

A brief description of each operable unit is provided in this section, to include a qualitative assessment of past sampling activities. Detailed site descriptions and quantitative sampling results are provided in the Operable Unit (OU) specific Field Sampling Plans (FSPs). Tables 2.1 through 2.4 show

the RI/FS sites, screening sites, RFA identified No Further Action (NFA) sites, and proposed NFA sites within each OU.

**2.2 Nature and Extent of Contamination.** The following section is intended to give a general, qualitative overview of the known nature and extent of contamination in each OU. Most of the information presented in this section has been derived from 50 surface soil samples and 24 subsurface samples collected in calendar year 1990. All samples (groundwater, soil [surface and subsurface], surface water, and sediment) were analyzed for volatile organics, semi-volatiles, pesticides/PCBs, total metals, and mercury. Detailed discussions concerning previous sampling results are presented in the Generic RI/FS Workplan and the OU specific Field Sampling Plans.

**2.2.1 OU-1, Dunn Field.** Dunn Field is the only area on DDMT where burial of waste is known to have occurred. A DDMT map dated 1956 shows 21 burial sites at Dunn Field. Two other sites include a burn pit and a pesticide storage area.

Groundwater monitoring wells were installed into the uppermost (fluvial) aquifer in this area by the USAEHA in 1982 and by the Law Study. Groundwater monitoring data collected during the Law Study shows levels of volatile organic compounds and metals which suggest a release has occurred from this area. The source of the release has not yet been determined.

Figure 2-1  
Operable Unit Locations

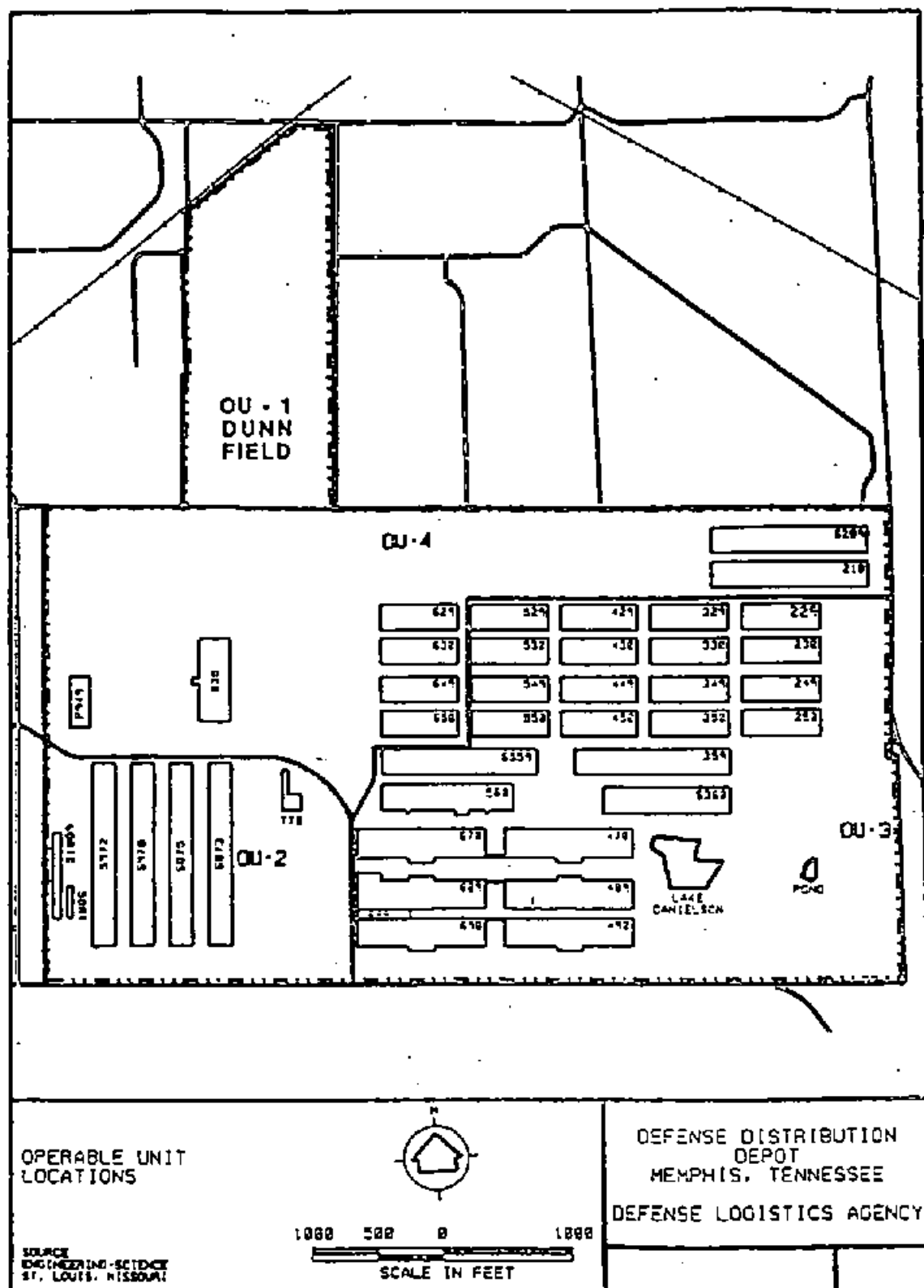




Table 2.1  
Operable Unit 1 - Dunn Field

SITE Number	Description	Comments
1	Mustard & Lewisite Training Set (6) Burial Site (1955)	
2	Ammonia Hydroxide (7 lbs) & Acetic Acid (1 gal) Burial (1955)	
3	Mixed Chemical Burial Site A (OT Dihydrochloride) (1955)	
4	POL Burial Site (12 - 35 gal drums; oil, grease, paint, date unk. (32 - 35 gal drums; oil, grease, thinner) (1955)	
5	Methyl Bromide Burial Site A (3 cubic feet) (1955)	
6	40,037 units ointment (eye) Burial Site (1955)	
7	Nitric Acid Burial Site (1700 bottles) (1954)	
8	Methyl Bromide Burial Site B (3,764 - 1 gal cans) (1954)	
9	Asbestos Metal Burial Site (burning pit refuse) (1955)	
10	Solid Waste Burial Site (nr MW-10) (metal, glass, trash, etc)	
11	Trichloroacetic Acid Burial Site (1,433 - 1 oz bottles) (1965)	
12	Sulfuric and Hydrochloric Acid Burial (quantity ?) (1967)	
13	Mixed Chemical Burial Site B (mixed chemicals, acid, 900 lbs detergent, 7,000 lbs Aluminum Sulfate, 200 lbs sodium)	
14	Municipal Waste Burial Site (nr MW 12) (food, paper products)	
15	Sodium Burial Sites (sodium - 1968) (Sodium Phosphate, 1968) (16 Burial Pits containing sodium phosphate, sodium acid, medical supplies, chlorinated lime, 1970)	
16	Unknown Acid Burial Site (1969) (Acid, Date Unknown)	
17	Mixed Chemical Burial Site C (1969)	
24	Former Burn Site (1946)	
85	Old Pistol Range Bldg. 1184/Temp. Pesticide Storage	
18	Plane Crash Residue (Dunn Field)	NFA per RCRA Permit
19	Former Tear Gas Canister Burn Site (Dunn Field)	Proposed Screening Site
20	Probable Asphalt Burial Site (Dunn Field)	Proposed Screening Site
21	XXCC-3 Burial Site (Dunn Field)	Proposed Screening Site
22	Hardware Burial Site (Nuts and Bolts) (Dunn Field)	NFA per RCRA Permit
23	Construction Debris and Food Burial Site (Dunn Field)	NFA per RCRA Permit
50	Dunn Field Northeast Quadrant Drainage Ditch	Proposed Screening Site
60	Pistol Range Impact Area Bullet Stop	Proposed Screening Site
61	Buried Drain Pipe (NW Quadrant of Dunn Field)	Proposed Screening Site
62	Bauxite Storage (NE Quadrant of Dunn Field)	Proposed NFA Site; Storage of Non-hazardous commodity
63	Fluorspar Storage (SE Quadrant of Dunn Field)	Proposed NFA Site; Storage of Non-hazardous commodity
64	Bauxite Storage (SW Quadrant of Dunn Field) (1942-72)	Proposed NFA Site; Storage of Non-hazardous commodity
86	Food Supplies (Dunn Field)	Proposed NFA Site - No hazardous substances at site

## Operable Unit 2 - Southwest Quadrant

Site No.	Description	Comments
27	Former Recoup Area	
29	Former Underground Waste Oil Storage Tank	
30	Paint Spray Booths (2 of 3 total; Bldgs. 770 and 1088)	NFA per RCRA Permit
31	Former Paint Spray Booth (Bldg. 1087)	Proposed Screening Site
32	Sandblasting Waste Accumulation Area	
33	Sandblasting Waste Drum Storage Area (Metal Shed S. of Bldg. 1088)	NFA per RCRA Permit Proposed Screening Site
34	Building 770 Underground Oil Storage Tanks	
40	Safety Kleen Units - 5 of 9 total (All located in Bldg. 770)	NFA per RCRA Permit
41	Satellite Drum Accumulation Areas - 2 of 4 total (vicinity of Bldg. 770)	NFA per RCRA Permit
47	Former Contaminated Soil Drum Storage Area (Concrete igloo located 300 feet west of Bldg. 689; drums removed 1988)	NFA per RCRA Permit
82	Flammables (Bldg. 783)	Proposed Screening Site
84	Flammables, solvents waste oil, etc. (Bldg. 972)	Proposed Screening Site
87	DDT, banned pesticides (Bldg. 1084)	
88	POL (Bldg. 1085)	
89	Acids (Bldg. 1089)	

*Revised 5 OCT 94: Even though Site 33 is NFA it is proposed as a screening site to reconfirm the appropriate status of the site.*

## Operable Unit 3 - Southeast Quadrant

Site No.	Description	Comments
25	Golf Course Pond	
52	Golf Course Pond Outlet Ditch	
28	Lake Danielson	
51	Lake Danielson Outlet Ditch	
58	Pesticides, herbicides (PAD 267)	
59	Pesticides, cleaners (Bldg. 273)	
48	Former PCB Transformer Storage Area	
30	Paint Spray Booths - of 3 total (Bldg. 260)	NFA per RCRA Permit
40	Safety Kleen Units - 4 of 9 total units (Bldgs. 253, 489, 490, & 689)	NFA per RCRA Permit
41	Satellite Drum Accumulation Areas - 2 of 4 total areas (Bldgs. 489 & 260)	NFA per RCRA Permit
49	Medical Waste Storage Area	NFA per RCRA Permit
65	XXCC-3 (Bldg. 249)	Proposed Screening Site
66	POL (Bldg. 253)	Proposed Screening Site
67	MOGAS (Bldg. 257)	Proposed Screening Site
68	POL (Bldg. 263) (20x40 feet)	Proposed Screening Site
69	2,4-D, M2A1 & M4 flame-thrower liquid fuels (surface applied)	Proposed Screening Site
73	2,4 Dichlorophenoxyacetic Acid (surface applied to all grassed areas)	Proposed Screening Site
75	Unknown Wastes near Bldg. 689	Proposed Screening Site
76	Unknown Wastes near Bldg. 690	Proposed Screening Site
77	Unknown Wastes near Bldgs. 689 & 690	Proposed Screening Site
78	Alcohol, Acetone, Toluene, Naphtha, & Hydrofluoric Acid Spill	Proposed Screening Site

Table 2.4

## Operable Unit 4 - North Area of Main Installation

Site No.	Description	Comments
57	Building 629 Spill Area	Proposed Screening Site
28	Recoup Area Building	NFA per RCRA Permit
35	DRMO Building T-308 Hazardous Waste Storage	Proposed Screening Site
36	DRMO Hazardous Waste Concrete Storage Pad	TDEC LEAD
37	DRMO Hazardous Waste Gravel Storage Pad	TDEC LEAD
38	DRMO Damaged/Empty Hazardous Materials Drums Storage Area	TDEC LEAD
39	DRMO Damaged/Empty Lubricant Container Area	TDEC LEAD
41	Satellite Drum Accumulation Area (1 of 5 Total - Bldg. 210)	NFA per RCRA Permit
42	Former PCP Dipvat Area	Proposed Screening Site
43	Former Underground PCP Tank Area	Proposed Screening Site
44	Former Waste Water Treatment Unit Area	NFA per RCRA Permit
45	Former Contaminated Soil Staging Area	NFA per RCRA Permit
48	Former PCP Pallet Drying Area	Proposed Screening Site
53	X-25 Flammable Solvents Storage Area (Near. Bldg. 925)	NFA per RCRA Permit
54	Main Installation - DRMO East Stormwater Runoff Canal	Proposed Screening Site
55	Main Installation - DRMO North Stormwater Runoff Area	Proposed Screening Site
56	Main Installation - West Stormwater Drainage Canal	Proposed Screening Site
70	POL, various chemicals (RR tracks 1,2,3,4,5,6) - Leaks	Proposed Screening Site
71	Herbicide (All RR tracks) (used to clear tracks)	Proposed Screening Site
72	Waste Oil (PDO yard) (surf. applied. for dust control)	Proposed Screening Site
73	2,4 Dichlorophenoxyacetic Acid (All grassed areas) (applied to surface)	Proposed Screening Site
74	Flammables, toxics (West End - Bldg. 319)	Proposed Screening Site
79	Fuels, misc. liquids, wood, paper (Vicinity S702)	Proposed Screening Site
80	Fuel & cleaners dispensing (Bldg. 720)	Proposed Screening Site
81	Fuel oil (Bldg. 765)	Proposed Screening Site
83	POL (isooctane, toluene, acetone, MEK, naphtha) Areas X-13,15,25	Proposed Screening Site

Revised 5 OCT 94

The burn pit was investigated with one surface soil sample during the Law Study. The results of this analysis revealed primarily polynuclear aromatic hydrocarbon (PAH) contamination in the soil. The only pesticide detected was alpha-chlordane. PAHs are thermally stable and are often artifacts left as residue when oil, gas, or organic materials are burned.

Building 1184 had previously been used in conjunction with the pistol range and in more recent years to store pesticides and herbicides. A soil sample taken during the Law Study near this building showed pesticides (DDT, DDE, and dieldrin) at elevated levels. Table 2.5 provides a summary of available data for OU 1 sites including potential contaminants for each site. Each burial site within Dunn Field will be described in detail in the OU-1 FSP.

**2.2.2 OU-2, Southwest Quadrant of Main Installation.** OU-2 is characterized as an area where maintenance and repair activities have taken place. OU-2 includes three key areas which are the former hazardous materials recoupment area; the sandblasting, painting areas, and associated buildings, and the equipment maintenance/repair facility.

During the Law Study soil samples were taken around the vicinity of Bldg. S- 873, the former hazardous materials recoupment area. Prior remediation for pesticide contamination resulted in the removal and backfill of surface soil in this area. Soil samples taken after the remediation did not contain pesticides at detectable levels. A groundwater monitoring well installed in this area during the Law Study revealed slightly elevated concentrations of metals. The sandblasting and painting area at Building 1088 was sampled during the Law Study, with surface soil samples collected on all sides of this building and near adjacent Bldgs. 1087 and 1089. PAHs, pesticides, and metals were detected. Subsurface soil samples in this vicinity did not exhibit contamination. Monitoring wells installed into the uppermost aquifer in this area exhibited trichloroethene and tetrachloroethene. A potential source for this contamination has not been determined. Nearby Bldgs. 1084 and 1085 require further investigation because pesticides and petroleum products were used at these areas.

Surface soil samples taken during the Law Study from the area surrounding Bldg. 770, the equipment maintenance/repair shop, indicated PAH contamination, indicative of oils or heavy fuel residuals. Low levels of chlorinated solvents were also found in this area. The extent of the PAH

contamination has not been determined. Table 2.6 provides a summary of available data for OU-2 sites including potential contaminants for each site.

**2.2.3 OU-3, Southeast Watershed.** OU-3 includes the Golf Course Pond, Lake Danielson, the former transformer storage area, Pad 267, and the former pesticide storage area. The Golf Course Pond and Lake Danielson lie on the lower reaches of the watershed draining the central and southeast portions of DDMT. Past studies of Lake Danielson and the Golf Course Pond have shown that the surface water, sediment, and fish in these water bodies exhibit low levels of pesticides and PCBs. These water bodies receive surface runoff from the surrounding industrial and recreational areas with three possible sources of contamination - the former transformer storage area; Pad 267 where pesticides and herbicides were stored; and Bldg. T-273 where pesticides and cleaners were handled.

Sediment samples taken at different depths from the Golf Course Pond and Lake Danielson indicated low levels of PAHs in only one Lake Danielson sample. Levels of PAHs were higher in samples from the Golf Course Pond. Surface soils from the Golf Course grounds during the Law Study revealed pesticides and low levels of PAHs.

Surface water samples collected from Lake Danielson during the Law Study showed copper and low levels of the pesticide DDE. No significant contamination was found at the lake inlet. Samples collected from a drainage ditch in the southwest corner of the golf course showed DDT. Two surface water samples collected from the Golf Course Pond showed copper. Samples collected from a drainage ditch along the southern boundary of DDMT which receives surface runoff from the Pond and the Golf Course showed low levels of DDE and DDT.

Outflows from Lake Danielson and the Golf Course Pond pass southward off-site to Nonconnah Creek. Fishing and swimming restrictions are currently in place for Lake Danielson and the Golf Course Pond. Table 2.7 provides a summary of available data for OU-3 sites including potential contaminants for each site.

Table 2.5

## Evaluation of Available Data - Operable Unit 1

SITE NUMBER	DESCRIPTION	SWMU NUMBER	Potential Contaminants (based on site description/ records)
1	Mustard & Lewisite Training Sets (6) Burial Site (1955)	1	Thiodiglycol, mustard
2	Ammonia Hydroxide (7 lbs) & Acetic Acid (1 gal) Burial (1955)	2	Possibly metals
3	Mixed Chemical Burial Site A (OT Dihydrochloride) (1955)	3	None expected to be hazardous
4	POL Burial Site (13 - 55 gal drums; oil, grease, paint), date unk. (32 - 55 gal drums; oil, grease, thinner) (1955)	4	VOCs, metals
5	Methyl Bromide Burial Site A (3 cubic feet) (1955)	5	Methyl bromide, VOCs
6	40,037 units ointment (eye) Burial Site (1955)	6	None expected to be hazardous
7	Nitric Acid Burial Site (1700 bottles) (1954)	7	Metals
8	Methyl Bromide Burial Site B (3,768 - 1 gal cans) (1954)	8	Methyl bromide, VOCs
9	Ashes and Metal Burial Site (burning pit refuse) (1955)	9	Metals, PAHs
10	Solid Waste Burial Site (nr MW-10) (metal, glass, trash, etc)	10	Metals
11	Trichloroacetic Acid Burial Site (1,431 - 1 oz bottles) (1965)	11	VOCs, metals
12	Sulfuric and Hydrochloric Acid Burial (quantity ?) (1967)	12	Metals
13	Mixed Chemical Burial Site B (mixed chemicals, acid, 900 lbs detergent; 7,000 lbs Aluminum Sulfate; 200 lbs sodium)	13	Metals
14	Municipal Waste Burial Site (nr MW 12) (food, paper products)	14	None expected to be hazardous
15	Sodium Burial Sites (sodium - 1968) (Sodium Phosphate, 1968)	15	None expected to be hazardous
	(14 Burial Pits containing sodium phosphate, sodium, acid, medical supplies, chlorinated lime, 1970)	-	None expected to be hazardous
16	Unknown Acid Burial Site (1969) (Acid, Date Unknown)	16	Metals
17	Mixed Chemical Burial Site C (1969)	-	Metals
24	Former Burn Site (1946)	17	Possibly VOCs, metals
85	Old Photo Range Bldg. 1184/ Temp. Pesticide Storage	24	PAHs, thiodiglycol, Pesticides, metals
		-	Pesticides

Pump Test (September 1992): Groundwater sampled for VOCs, Semivolatiles, metals, pesticides/PCBs, mustard, thiodiglycol. Only VOCs detected.  
 GW: Groundwater. Groundwater sampled for VOCs, Semivolatiles, metals, pesticides/PCBs. VOCs and metals only detected in all rounds of prev (1982, 1987, 1989, and 1990)

Table 2.6

## Evaluation of Available Data - Operable Unit 2

SITE NUMBER	DESCRIPTION	SWMU NUMBER	Potential Contaminants (based on site description/ records)
27	Former Recoup Area	27	PAHs, Pesticides/PCBs, Metals
87	DDT, banned pesticides (Bldg. 1084)	-	Pesticides/PCBs, Metals
88	POL (Bldg. 1085)	-	Pesticides/PCBs, Metals
89	Acids (Bldg. 1089)	-	Pesticides/PCBs, Metals
29	Former Underground Waste Oil Storage Tank (Nr. Bldg 1086)	29	Pesticides/PCBs, PAHs, Metals
32	Sandblasting Waste Accumulation Area (Nr. Bldgs 1087, 1088)	32	Metals
34	Building 770 Underground Oil Storage Tanks (2 - 1,000 gal) (Waste Oil)	34	PAHs, PCBs, Metals, VOCs

**2.2.4 OU-4, North Central Area.** This OU is primarily characterized by the presence of the main hazardous materials storage building at DDMT. High levels of pesticides, PAHs, and VOCs were detected during previous sampling events during the Law Study and RFA. The geographical area of OU-4 contains Bldg. 737, the former PCP dip vat area, and building 629, which is the hazardous materials storage area. Table 2.8 provides a summary of available data for OU-4 sites including potential contaminants for each site.

**2.2.5 Screening Sites.** The screening sites have been identified in the RFA, the Law Study, and the DDMT RCRA Permit. The sites include areas such as storm water drainage ditches, fuel storage areas, known/ suspected spill areas, and areas where pesticides had been applied. Table 2.9 provides a summary of sites for which screening sampling is proposed, as well as a potential OU for each site. Table 2.9 provides a summary of available data for the proposed Screening Sites including potential contaminants for each site.

**2.2.6 No Further Action Sites.** Table 2.10 contains a summary of proposed NFA sites. A total of 23 sites are proposed for NFA due to one or more of the following reasons: no threat for releases due to past waste management activities; no observed contamination based on sampling results; prior removal/ remediation activities; no hazardous substances managed at site; and current operational/ structural features. A report justifying, for each site, the no further action status will be submitted for regulatory agency review and approval/concurrence.

**3.0 OPERABLE UNIT SCHEDULING.** The schedules of the OUs are based upon the issuance of draft primary and secondary document submittals. The schedule will be revised in accordance with the FFA. Schedules for each OU are included in Appendix B of this SMP.



**Table 2.7**  
**Evaluation of Available Data - Operable Unit 3**

SITE NUMBER	DESCRIPTION	SWMU NUMBER	Potential Contaminants (based on site description/ records)
25	Golf Course Pond	25	Pesticides/PCBs, Metals, PAHs
26	Lake Dannebrog	26	Pesticides/PCBs, Metals, PAHs
58	Pesticides, herbicides (PAD 267)	-	Pesticides/PCBs
59	Pesticides, cleaners (Bldg. 273)	-	Pesticides, PAHs, metals
48	Former PCB Transformer Storage Area (New Cafeteria)	48	PCBs, PAHs, metals

**Table 2.8**  
**Evaluation of Available Data - Operable Unit 4**

SITE NUMBER	DESCRIPTION	SWMU NUMBER	Potential Contaminants (based on site description/ records)
57	Building 629 Spill Area (SW Corner near Rail Loading Dock)	AOC-H	VOCs, PAHs, pesticides, metals

Table 2.9

## Evaluation of Available Data - Screening Sites

SITE NO.	DESCRIPTION	SWMU No.	POTENTIAL CONTAMINANTS (based on site description/records)
19	Former Tear Gas Canister Burn Site (Dunn Field)	19	PAHs
20	Probable Asphalt Burial Site (Dunn Field)	20	PAHs
21	XXCC-3 Burial Site	21	unknown
28	Hazardous Materials Recoup Facility (Bldg. 865)	28	unknown
31	Former Paint Spray Booth (inside Bldg. 1087)	31	Metals, PAHs, Pest/PCBs
33	Sandblasting Waste Drum Storage Area (Metal Shed S. of Bldg. 1088)	33	Sandblast Grit, Paint Chips, E.P. Toxic Metals
35	DRMO Bldg. T-308, Hazardous Waste Storage	35	Flammables, Caustics, Acids
37	DRMO Hazardous Waste Gravel Storage Pad	37	Metals, PAHs
38	DRMO Damaged/Empty Hazardous Materials	38	Metals, PAHs, Pest/PCBs
39	DRMO Damaged/Empty Lubricant Container Area	39	VOCs, PAHs
42	Former PCP Dip Vat Area	42	PCPs
43	Former Underground PCP Tank Area	43	PCPs
46	Former PCP Drying Area	46	PCPs
50	Dunn Field Northeast Quadrant Stormwater drainage Channel	AOC-A	Metals/Pest.
54	DRMO Drainage Ditch (East)	AOC-E	unknown
55	DRMO Drainage Ditch (North)	AOC-F	unknown
56	Main Installation Stormwater Drainage Ditch (West)	AOC-G	unknown
60	Pistol range Impact Area/Bullet Stop	---	Metals
61	Buried Drain Pipe (NW Quadrant of Dunn Field)	---	VOCs, Metals or Construction Debris
62	Bauxite Storage (Dunn Field, NE Quadrant)	---	Metals

Revised 6 OCT 94: Site 33 now listed in Table 2.9.

Table 2.9 (cont.)

## Evaluation of Available Data - Screening Sites

SITE NO.	DESCRIPTION		POTENTIAL CONTAMINANTS (based on site description/records)
84	Bauxite Storage (Dunn Field, SW Quadrant)	---	Metals
85	XXCC-3 (Bldg. 249)	---	unknown
86	POL (Bldg. 253)	---	VOCs, PAHs
87	MOGAS (Bldg. 257)	---	VOCs, PAHs
88	POL (Bldg. 263)(20x40 ft.)	---	VOCs, PAHs
89	2,4-D, M2A1 & M4 flame-thrower liquid fuels (surface application)	---	PAHs
70	POL, various chemicals (RR tracks 1,2,3,4,5,6) - suspected leaks	---	PAHs, Pest/PCBs
71	Herbicide (all RR tracks)(used to clear tracks)	---	Pesticides
72	Waste Oil (PDO yard)(surface application for dust control)	---	VOCs, PAHs
73	2,4 Dichlorophenoxyacetic Acid (all grassed areas)(applied to surface)	---	PAHs, Pest/PCBs
74	Flammables, toxics Bldg. 319, West end)	---	VOCs, PAHs, metals, Pest/PCBs
75	Unknown wastes near Bldg. 689	---	PAHs, Pest/PCBs
76	Unknown wastes near Bldg. 690	---	PAHs, Pest/PCBs
77	Unknown wastes near Bldg. 689 & 690	---	PAHs, Pest/PCBs
78	Alcohol, acetone, toluene, naphtha; hydrofluoric acid spill (vicinity 689)	---	VOCs, PAHs
79	Fuels, misc. liquids, wood, paper (vicinity S702)	---	VOCs, PAHs
80	Fuel dispensing (Bldg. 720)	---	VOCs, PAHs
81	Fuel oil (Bldg. 765)	---	VOCs, PAHs
82	Flammables (Bldg. 783)	---	VOCs, PAHs, Pest/PCBs
83	POL (isooctane, toluene, acetone, MEK, naphtha) areas X-13, 15, & 25	---	Metals, VOCs
84	Flammables, solvents, waste oil, etc. (Bldg. 872)	---	VOCs, PAHs

**Table 2.10**  
**Proposed No Further Action Sites**

103 91

<b>SITE NO.</b>	<b>DESCRIPTION</b>	<b>COMMENTS</b>
18	Airplane Crash Residue (Dunn Field)	NFA per RCRA Permit - No hazardous substances at site
22	Hardware Burial Site (Nuts and Bolts)(Dunn Field)	Proposed NFA Site - No hazardous substances at site
23	Construction Debris and Food Burial Site (Dunn Field)	Proposed NFA Site - No hazardous substances at site
30	Paint Spray Booths (Bldg. 280, 770, & 1088)(OUs 2&3)	NFA per RCRA Permit - active paint spray booths
40	Safety-Kleen Units (9 interior locations)(OUs 2&3)	NFA per RCRA Permit - low potential for release
41	Satellite Drum Accumulation Area (5 locations)(OUs 2&3)	NFA per RCRA Permit - low potential for release
44	Former Waste Water Treatment Unit Area	NFA per RCRA Permit - Extensive Remediation in 1985/86
45	Former Contaminated Soil Staging Area	NFA per RCRA Permit - Extensive Remediation in 1985/86
47	Former Contaminated Soil Storage Area (Igloo interior)	NFA per RCRA Permit - Extensive Remediation in 1985/86
48	Medical Waste Storage Area (Bldg. 359 interior)	NFA per RCRA Permit - expired shelf life medical supplies (off site disposal)
53	X-25 Flammable Solvents Storage Area (between Bldgs. 925 & 949)	NFA per RCRA Permit - bermed concrete storage pad; former spill site
63	Fluorspar Storage (SE Quadrant of Dunn Field)	Proposed NFA Site - storage of non-hazardous commodity
86	Food Supplies (Dunn Field)	Proposed NFA Site - No hazardous substances at site

## 4.0 GLOSSARY OF TERMS.

AOC - Area of Concern

BX - Base Exchange

CEHND - United States Army Corps of Engineers, Huntsville Division

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act

DDT - 1,1,1-Trichloro-2,2-bis(p-chloro-phenyl)ethane

DDD - Dichlorodiphenyl-dichloroethane

DDE - Dichlorodiphenyl-dichloroethylene

DDMT - Defense Distribution Depot Memphis, Tennessee

DDRC - Defense Distribution Region Central

DDRE - Defense Distribution Region East

DLA - Defense Logistics Agency

DoD - Department of Defense

EPA - United States Environmental Protection Agency

FFA - Federal Facilities Agreement

IA - Installation Assessment

IRP - Installation Restoration Program

NFA - No Further Action

OU - Operable Unit

PAH - Polynuclear Aromatic Hydrocarbon

PCB - Polychlorinated Biphenyl

PCP - Pentachlorophenol

PSC - Potential Source of Contamination

RCRA - Resource Conservation and Recovery Act

RFA - RCRA Facility Assessment

RI/FS - Remedial Investigation/ Feasibility Study

RPM - Remedial Project Manager

TDEC - Tennessee Department of Environment and Conservation

TDOH - Tennessee Department of Health

SARA - Superfund Amendment and Reauthorization Act

SMP - Site Management Plan

SWMU - Solid Waste Management Unit

USAEHA - United States Army Environmental Hygiene Agency

USATHAMA - United States Army Toxic and Hazardous Materials Agency (now referred to as the United States Army Environmental Center (AEC))

UST - Underground Storage Tank

VOC - Volatile Organic Compound

APPENDIX A  
REFERENCES

1. Law Environmental, April 1989, "Remedial Investigation/ Feasibility Study (RI/FS) at DDMT, Revised Final Work Plans."
2. Law Environmental, August 1990, "Remedial Investigation at DDMT, Final Report."
3. Law Environmental, August 1990, "Report Appendices for Remedial Investigation at DDMT, Final Report."
4. Law Environmental, September 1990, "Feasibility Study for DDMT, Final Report."
5. U.S. Army Environmental Hygiene Agency, 1985, Environmental Audit No. 43-21-1387-86, Defense Depot Memphis, Memphis, Tennessee.
6. U.S. Army Environmental Hygiene Agency, 1982, Geohydrologic Study No. 38-26-0195-83, Defense Depot Memphis, Memphis, Tennessee.
7. U.S. Army Environmental Hygiene Agency, 1986, Groundwater Consultation No. 38-26-0815-87: Collection and Analysis of Groundwater Samples, Defense Depot Memphis, Tennessee.
8. U.S. Army Environmental Hygiene Agency, 1986, Water Quality Biological Study No. 32-24-0733-86, Investigation of Fire Reservoir, DDMT.
9. U.S. Army Toxic and Hazardous Materials Agency, Installation Assessment of Defense Depot Memphis, Tennessee, July 1982.
10. Summary Report, On-Site Remedial Activities at the Defense Depot Memphis, O.H. Materials Company, 24 February 1986.
11. U.S. Environmental Protection Agency, RCRA Facility Assessment, Defense Depot Memphis Tennessee, January 1990.. RCRA Facility Assessment, U.S. EPA, January 1990.
12. Letter, 15 November 1985, Tennessee Dept. of Health and Environment to Commander, DDMT, subject: Results of 8 November 1985 Meeting Concerning On-Site Remedial Activities and Clean-Up Levels.
13. Engineering Report, Removal Action for Groundwater at DDMT, Engineering Science, August 1993 (Draft Final).
14. Environmental Assessment, Removal Action for Groundwater at DDMT, Engineering Science, August 1993 (Draft Final).

## APPENDIX B

### GENERIC WORKPLANS SCHEDULE

DESCRIPTION	No. of DAYS	START DATE	FINISH DATE
Draft Generic Health and Safety Plan	90	12-Oct-93	9-Jan-94
Draft Generic Quality Assurance Project Plan	89	13-Oct-93	9-Jan-94
Draft Generic RI/FS Workplan	89	13-Oct-93	9-Jan-94
Regulatory Agencies' Review	267	10-Jan-94	3-Oct-94
DLA Responds to Regulators' Comments	60	4-Oct-94	2-Dec-94
Incorporate Comments & Submit Draft Final Generic Workplans (3)	120	4-Oct-94	31-Jan-95
Regulatory Agencies' Review	30	1-Feb-95	2-Mar-95
Final Plans Approved	35	1-Feb-95	7-Mar-95



## APPENDIX B

## OPERABLE UNIT 1 SCHEDULE

DESCRIPTION	No. of DAYS	START DATE	FINISH DATE
Draft OU-1 Field Sampling Plan (FSP)	90	12-Oct-93	9-Jan-94
Regulatory Agencies' Review	302	10-Jan-94	7-Nov-94
DLA Responds to Regulators' Comments	60	8-Nov-94	6-Jan-95
Incorporate Comments & Submit Draft Final OU-1 FSP	120	8-Nov-94	7-Mar-95
Regulatory Agencies' Review	30	8-Mar-95	6-Apr-95
Final OU-1 FSP Approved	35	8-Mar-95	11-Apr-95
Field Work (Incl Upgrading Screening Sites)	200	12-Apr-95	28-Oct-95
Data Validation	30	29-Oct-95	27-Nov-95
Draft Remedial Investigation (RI) Report	60	28-Nov-95	28-Jan-96
Regulatory Agencies' Review	60	27-Jan-96	26-Mar-96
DLA Responds to Regulators' Comments	60	27-Mar-96	25-May-96
Incorporate Comments & Submit Draft Final RI Report	120	27-Mar-96	24-Jul-96
Regulatory Agencies' Review	30	25-Jul-96	23-Aug-96
Final RI Report Approved	35	25-Jul-96	28-Aug-96
Draft Feasibility Study (FS)	60	28-May-96	24-Jul-96
Regulatory Agencies' Review	60	25-Jul-96	22-Sep-96
DLA Responds to Regulators' Comments	60	23-Sep-96	21-Nov-96
Incorporate Comments & Submit Draft Final FS	120	23-Sep-96	20-Jan-97
Regulatory Agencies' Review	30	21-Jan-97	19-Feb-97
Final RI Report Approved	35	21-Jan-97	24-Feb-97
Draft Proposed Remedial Action Plan (PRAP)	60	25-Feb-97	25-Apr-97
Regulatory Agencies' Review	60	28-Apr-97	24-Jun-97
DLA Responds to Regulators' Comments	60	25-Jun-97	23-Aug-97
Incorporate Comments & Submit Draft Final PRAP	120	25-Jun-97	22-Oct-97
Regulatory Agencies' Review	30	23-Oct-97	21-Nov-97
Final PRAP Report Approved	35	23-Oct-97	26-Nov-97
Prepare Public Notice	32	23-Oct-97	23-Nov-97
Publish Public Notice	7	24-Nov-97	30-Nov-97
Public Comment Period	30	1-Dec-97	30-Dec-97
Public Meeting	1	11-Dec-97	11-Dec-97
Prepare Public Responsiveness Summary	30	12-Dec-97	10-Jan-98
Draft Record of Decision (ROD)	60	24-Aug-97	22-Oct-97
Regulatory Agencies' Review	60	23-Oct-97	21-Dec-97
DLA Responds to Regulators' Comments	60	22-Dec-97	19-Feb-98
Incorporate Comments & Submit Draft Final ROD	120	22-Dec-97	20-Apr-98
Regulatory Agencies' Review	30	21-Apr-98	20-May-98
Final ROD Approved and Signed	35	21-Apr-98	25-May-98

## APPENDIX B

## OPERABLE UNIT 2 SCHEDULE

DESCRIPTION	No. of DAYS	START DATE	FINISH DATE
Draft OU-2 Field Sampling Plan (FSP)	60	12-Dec-83	9-Feb-84
Regulatory Agencies' Review	285	10-Feb-84	21-Nov-84
DLA Responds to Regulators' Comments	60	22-Nov-84	20-Jan-85
Incorporate Comments & Submit Draft Final OU-2 FSP	120	22-Nov-84	21-Mar-85
Regulatory Agencies' Review	30	22-Mar-85	20-Apr-85
Final OU-2 FSP Approved	35	22-Mar-85	25-Apr-85
Field Work (Incl Upgrading Screening Sites)	200	28-Apr-85	11-Nov-85
Data Validation	30	12-Nov-85	11-Dec-85
Draft Remedial Investigation (RI) Report	60	12-Dec-85	9-Feb-86
Regulatory Agencies' Review	60	10-Feb-86	8-Apr-86
DLA Responds to Regulators' Comments	60	10-Apr-86	8-Jun-86
Incorporate Comments & Submit Draft Final RI Report	120	10-Apr-86	7-Aug-86
Regulatory Agencies' Review	30	8-Aug-86	8-Sep-86
Final RI Report Approved	35	8-Aug-86	11-Sep-86
Draft Feasibility Study (FS)	60	9-Jun-86	7-Aug-86
Regulatory Agencies' Review	60	8-Aug-86	6-Oct-86
DLA Responds to Regulators' Comments	60	7-Oct-86	5-Dec-86
Incorporate Comments & Submit Draft Final FS	120	7-Oct-86	3-Feb-87
Regulatory Agencies' Review	30	4-Feb-87	5-Mar-87
Final RI Report Approved	35	4-Feb-87	10-Mar-87
Draft Proposed Remedial Action Plan (PRAP)	60	11-Mar-87	9-May-87
Regulatory Agencies' Review	60	10-May-87	8-Jul-87
DLA Responds to Regulators' Comments	60	9-Jul-87	6-Sep-87
Incorporate Comments & Submit Draft Final PRAP	120	9-Jul-87	5-Nov-87
Regulatory Agencies' Review	30	5-Nov-87	5-Dec-87
Final PRAP Report Approved	35	5-Nov-87	10-Dec-87
Prepare Public Notice	32	6-Nov-87	7-Dec-87
Publish Public Notice	7	8-Dec-87	14-Dec-87
Public Comment Period	30	15-Dec-87	13-Jan-88
Public Meeting	1	25-Dec-87	25-Dec-87
Prepare Public Responsiveness Summary	30	26-Dec-87	24-Jan-88
Draft Record of Decision (ROD)	60	7-Sep-87	5-Nov-87
Regulatory Agencies' Review	60	6-Nov-87	4-Jan-88
DLA Responds to Regulators' Comments	60	5-Jan-88	5-Mar-88
Incorporate Comments & Submit Draft Final ROD	120	5-Jan-88	4-May-88
Regulatory Agencies' Review	30	5-May-88	3-Jun-88
Final ROD Approved and Signed	35	5-May-88	8-Jun-88

## APPENDIX B

## OPERABLE UNIT 3 SCHEDULE

DESCRIPTION	No. of DAYS	START DATE	FINISH DATE
Draft OU-3 Field Sampling Plan (FSP)	60	13-Jan-94	13-Mar-94
Regulatory Agencies' Review	274	14-Mar-94	12-Dec-94
DLA Responds to Regulators' Comments	60	13-Dec-94	10-Feb-95
Incorporate Comments & Submit Draft Final OU-3 FSP	120	13-Dec-94	11-Apr-95
Regulatory Agencies' Review	30	12-Apr-95	11-May-95
Final OU-3 FSP Approved	35	12-Apr-95	16-May-95
Field Work (Incl Upgrading Screening Sites)	200	17-May-95	2-Dec-95
Data Validation	30	3-Dec-95	1-Jan-96
Draft Remedial Investigation (RI) Report	60	2-Jan-96	1-Mar-96
Regulatory Agencies' Review	60	2-Mar-96	30-Apr-96
DLA Responds to Regulators' Comments	60	1-May-96	28-Jun-96
Incorporate Comments & Submit Draft Final RI Report	120	1-May-96	28-Aug-96
Regulatory Agencies' Review	30	29-Aug-96	27-Sep-96
Final RI Report Approved	35	29-Aug-96	2-Oct-96
Draft Feasibility Study (FS)	60	30-Jun-96	28-Aug-96
Regulatory Agencies' Review	60	29-Aug-96	27-Oct-96
DLA Responds to Regulators' Comments	60	28-Oct-96	26-Dec-96
Incorporate Comments & Submit Draft Final FS	120	28-Oct-96	24-Feb-97
Regulatory Agencies' Review	30	25-Feb-97	26-Mar-97
Final RI Report Approved	35	25-Feb-97	31-Mar-97
Draft Proposed Remedial Action Plan (PRAP)	60	1-Apr-97	30-May-97
Regulatory Agencies' Review	60	31-May-97	29-Jul-97
DLA Responds to Regulators' Comments	60	30-Jul-97	27-Sep-97
Incorporate Comments & Submit Draft Final PRAP	120	30-Jul-97	26-Nov-97
Regulatory Agencies' Review	30	27-Nov-97	26-Dec-97
Final PRAP Report Approved	35	27-Nov-97	31-Dec-97
Prepare Public Notice	32	27-Nov-97	28-Dec-97
Publish Public Notice	7	28-Dec-97	4-Jan-98
Public Comment Period	30	5-Jan-98	3-Feb-98
Public Meeting	1	15-Jan-98	15-Jan-98
Prepare Public Responsiveness Summary	30	16-Jan-98	14-Feb-98
Draft Record of Decision (ROD)	60	28-Sep-97	26-Nov-97
Regulatory Agencies' Review	60	27-Nov-97	25-Jan-98
DLA Responds to Regulators' Comments	60	26-Jan-98	28-Mar-98
Incorporate Comments & Submit Draft Final ROD	120	26-Jan-98	25-May-98
Regulatory Agencies' Review	30	26-May-98	24-Jun-98
Final ROD Approved and Signed	35	26-May-98	29-Jun-98

## APPENDIX B

## OPERABLE UNIT 4 SCHEDULE

DESCRIPTION	No. of DAYS	START DATE	FINISH DATE
Draft OU-4 Field Sampling Plan (FSP)	60	13-Feb-94	6-May-94
Regulatory Agencies' Review	234	9-May-94	28-Dec-94
DLA Responds to Regulators' Comments	60	29-Dec-94	28-Feb-95
Incorporate Comments & Submit Draft Final OU-4 FSP	120	29-Dec-94	27-Apr-95
Regulatory Agencies' Review	30	28-Apr-95	27-May-95
Final OU-4 FSP Approved	35	28-Apr-95	1-Jun-95
Field Work (Incl Upgrading Screening Sites)	200	2-Jun-95	18-Dec-95
Data Validation	30	19-Dec-95	17-Jan-96
Draft Remedial Investigation (RI) Report	60	18-Jan-96	17-Mar-96
Regulatory Agencies' Review	60	18-Mar-96	16-May-96
DLA Responds to Regulators' Comments	60	17-May-96	15-Jul-96
Incorporate Comments & Submit Draft Final RI Report	120	17-May-96	13-Sep-96
Regulatory Agencies' Review	30	14-Sep-96	13-Oct-96
Final RI Report Approved	35	14-Sep-96	18-Oct-96
Draft Feasibility Study (FS)	60	16-Jul-96	13-Sep-96
Regulatory Agencies' Review	60	14-Sep-96	12-Nov-96
DLA Responds to Regulators' Comments	60	13-Nov-96	11-Jan-97
Incorporate Comments & Submit Draft Final FS	120	13-Nov-96	12-Mar-97
Regulatory Agencies' Review	30	13-Mar-97	11-Apr-97
Final RI Report Approved	35	13-Mar-97	16-Apr-97
Draft Proposed Remedial Action Plan (PRAP)	60	17-Apr-97	15-Jun-97
Regulatory Agencies' Review	60	16-Jun-97	14-Aug-97
DLA Responds to Regulators' Comments	60	15-Aug-97	13-Oct-97
Incorporate Comments & Submit Draft Final PRAP	120	15-Aug-97	12-Dec-97
Regulatory Agencies' Review	30	13-Dec-97	11-Jan-98
Final PRAP Report Approved	35	13-Dec-97	16-Jan-98
Prepare Public Notice	40	13-Dec-97	21-Jan-98
Publish Public Notice	7	22-Jan-98	28-Jan-98
Public Comment Period	30	29-Jan-98	27-Feb-98
Public Meeting	1	8-Feb-98	8-Feb-98
Prepare Public Responsiveness Summary	30	9-Feb-98	10-Mar-98
Draft Record of Decision (ROD)	60	14-Oct-97	12-Dec-97
Regulatory Agencies' Review	60	13-Dec-97	10-Feb-98
DLA Responds to Regulators' Comments	60	11-Feb-98	11-Apr-98
Incorporate Comments & Submit Draft Final ROD	120	11-Feb-98	10-Jun-98
Regulatory Agencies' Review	30	11-Jun-98	10-Jul-98
Final ROD Approved and Signed	35	11-Jun-98	15-Jul-98

# APPENDIX B

103 100

## SCREENING SITES SCHEDULE

DESCRIPTION	No. of DAYS	START DATE	FINISH DATE
Draft Screening Sites Field Sampling Plans (FSP)	172	12-Oct-93	1-Apr-94
Regulatory Agencies' Review	196	2-Apr-94	14-Oct-94
DLA Responds to Regulators' Comments	60	15-Oct-94	13-Dec-94
Incorporate Comments & Submit Draft Final FSPs	120	15-Oct-94	11-Feb-95
Regulatory Agencies' Review	30	12-Feb-95	13-Mar-95
Final Screening Sites Sampling Plan Approved	35	12-Feb-95	18-Mar-95
Field Work	200	18-Mar-95	4-Oct-95
Data Validation	30	5-Oct-95	3-Nov-95
Draft Screening Sites Results Report	60	4-Nov-95	2-Jan-96
Regulatory Agencies' Review	60	3-Jan-96	2-Mar-96
DLA Responds to Regulators' Comments	60	3-Mar-96	1-May-96
Incorporate Comments & Submit Draft Final Report	120	3-Mar-96	30-Jun-96
Regulatory Agencies' Review	30	1-Jul-96	30-Jul-96
Final Report Approved	35	1-Jul-96	4-Aug-96
EPA-TDEC-DLA Meeting to Upgrade/Downgrade Sites	15	3-Aug-96	18-Aug-96
Draft Workplan Addendum	60	20-Aug-96	18-Oct-96
Regulatory Agencies' Review	60	19-Oct-96	17-Dec-96
DLA Responds to Regulators' Comments	60	18-Dec-96	15-Feb-97
Incorporate Comments & Submit Draft Final Workplan	120	18-Dec-96	18-Apr-97
Regulatory Agencies' Review	30	17-Apr-97	16-May-97
Final Screening Sites Sampling Plan Approved	35	17-Apr-97	21-May-97
Field Work at Upgraded Sites	60	22-May-97	20-Jul-97

**FINAL PAGE**

**ADMINISTRATIVE RECORD**

**FINAL PAGE**

**FINAL PAGE**

**ADMINISTRATIVE RECORD**

**FINAL PAGE**