



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
SOUTH ATLANTIC DIVISION
60 FORSYTH STREET SW, ROOM 10M15
ATLANTA, GA 30303-8801

25 OCT 2013

CESAD-PDP

MEMORANDUM FOR Commander, Mobile District (CESAM-PM-CM)

SUBJECT: Approval of Review Plan for Completion/Revision of the Design Deficiency Report for the Northport Levee Repair Project along the Black Warrior River, Northport, Alabama

1. References:

- a. Memorandum, CESAM-PM-CM, 17 September 2013, subject as above.
- b. EC 1165-2-214, Civil Works Review, 15 December 2012.

2. The enclosed Review Plan for the Northport Levee Design Deficiency Report has been prepared in accordance with Engineer Circular (EC) 1165-2-214. The Review Plan has been coordinated with the South Atlantic Division, which is the Review Management Organization for this Section 205 of the Continuing Authorities Program Design Deficiency Report. This brief decision document is so limited in scope or impact that it would not significantly benefit from a Type I Independent External Peer Review (IEPR). I approve the exclusion from the Type I IEPR based upon the risk informed decision presented in this Review Plan. As stated in the Review Plan the timing and the appropriate expertise requirements for a Type II IEPR Panel for the Design and Construction of the levee replacement must be assessed and submitted for my approval in an updated Review Plan prior to initiation of the design/implementation phase of this project.

3. The Review Plan submitted by reference 1.a has been reviewed by this office. As a result of this review, minor changes were coordinated with your staff. The enclosed Review Plan with the coordinated changes incorporated is hereby approved in accordance with reference 1. b. This Review Plan is subject to change as circumstances require consistent with study development under the Project Management Business Process. Subsequent revisions to this Review Plan or its execution will require new written approval from this office. The District shall post the approved Review Plan and a copy of this approval memorandum to the District public internet website and provide a link to South Atlantic Division for our use. Before posting to the website, the names of Corps employees should be removed.

4. The point of contact for this action is Mr. Patrick O'Donnell at (404) 562-5226.

DONALD E. JACKSON, JR.
Brigadier General, USA
Commanding

Encl



REPLY TO
ATTENTION OF

CESAM-PM-CM

DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, AL 36628-0001

17 September 2013

MEMORANDUM FOR CDR, SOUTH ATLANTIC DIVISION, CESAD-PDS,
MR. WILBERT PAYNES

SUBJECT: Approval of Review Plan for Completion/Revision of the Design Deficiency Report for the Northport Levee Repair Project along the Black Warrior River, Northport, Alabama.

1. A copy of the subject Review Plan is enclosed for review and approval.
2. The Review Plan describes the technical review process to address the Completion/Revision of the Design Deficiency Report for the Northport Levee Repair Project in Northport, Alabama. This Review Plan is a living document and may change as the project progresses.
3. If you should have any questions regarding this request please contact the Project Manager David Newell, at 251-690-2328.

Encls

A handwritten signature in black ink that reads "Jon J. Chytra".

JON J. CHYTRA
COL, EN
Commanding

**Review Plan
for
Completed/Revised Design Deficiency
Report
for the
Northport Levee Repair Project
along the
Black Warrior River
Northport, Alabama**

September 2013

THE INFORMATION CONTAINED IN THIS REVIEW PLAN IS DISTRIBUTED SOLELY FOR THE PURPOSE OF PREDISSEMINATION PEER REVIEW UNDER APPLICABLE INFORMATION QUALITY GUIDELINES. IT HAS NOT BEEN FORMALLY DISSEMINATED BY THE U.S. ARMY CORPS OF ENGINEERS, CHARLESTON DISTRICT. IT DOES NOT REPRESENT AND SHOULD NOT BE CONSTRUED TO REPRESENT ANY AGENCY DETERMINATION OR POLICY.

Table of Contents

1. Purpose and Requirements.	3
2. Project Information and Background.	3
3. Review Management Organization (RMO).	4
4. District Quality Control.	4
5. Agency Technical Review (ATR) Risk Informed Decision.....	4
6. Independent External Peer Review (IEPR) Risk Informed Decision.....	5
7. Policy Review.....	7
8. Model Certification/Approval.	7
9. Approvals.....	7
10. Review Plan Point of Contact.....	8

REVIEW PLAN

Completion of the Design Deficiency Report to Incorporate a Discussion of Economic Justification, Cost Sharing, Status of NEPA and Environmental Compliance Efforts and Real Estate for the Northport Levee Repair Project along the Black Warrior River Northport, Alabama

1. Purpose and Requirements.

This document provides a review plan for the revision/completion of the Design Deficiency Report to incorporate a discussion of economic justification, cost sharing, status of NEPA and environmental compliance efforts and real estate requirements for the Northport Levee Repair Project along the Black Warrior River Northport, Alabama. This completed Design Deficiency Report will be the decision document for moving forward with the Design and Construction to correct this deficiency.

Appropriate levels of review (District Quality Control (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR) and Policy and Legal Review) for decision documents addressed and defined in Engineer Circular (EC) 1165-2-214 dated 15 December 2012, "Civil Works Review", are included in the Review Plan. A risk-informed decision will be provided in the Review Plan for any level of applicable review that will not be undertaken.

2. Project Information and Background.

The Northport Levee Project was constructed to reduce flood damages from the Black Warrior River. The project was completed under the Section 205 Continuing Authorities Program in August 1999 at a cost of approximately \$4.2 million dollars. The project was cost-shared at 65/35 percent Federal/non-Federal respectively. The levee is designed to provide protection against a 100-year flood event. The City of Northport is the non-Federal sponsor and is required to operate and maintain the levee project in accordance with the operations and maintenance manual.

During an inspection on 13 July 2010, the inspection team noticed cracking along the levee approximately 320 feet long between Stations 92+80 and 96+00 with displacement up to two inches in some areas. Anomalies along the east side of the levee were also noticed in areas where cracking had occurred with signs of erosion along the west bank of Two-mile Creek.

In January 2011, SAD endorsed to HQ an SAM request for funding for a project modification. This SAM request and the attached documentation indicated that a modification was needed due to a cracking and displacement of an approximately 320-foot long length of levee crest as noted in the July 2010 periodic inspection. HQ reviewed this "Northport Levee Design Deficiency Package" agreed that there is a design deficiency and provided the direction to revise the report to include a discussion of economic justification, cost sharing, status of NEPA and environmental compliance efforts, and real estate requirements.

Current Project Scope. The scope of the work effort and work product covered by this Review Plan is to complete/revise the “Design Deficiency Report” to address the items identified above in the HQ Review. When approved this completed Design Deficiency Report will be the decision document for moving forward with the Design and Construction to correct this deficiency. This revision of the Design Deficiency Report and any resulting design and construction will be accomplished under the Section 205 Continuing Authorities Program. The needed Design Document reviews and Construction reviews addressed in EC 1165-2-214 will be addressed in an updated Review Plan to be prepared and approved prior to initiation of the Design effort.

3. Review Management Organization (RMO).

The RMO is responsible for managing the peer review efforts described in this Review Plan with the exception of the District Quality Control which is managed by the home district. The RMO for this completion/revision of the Design Deficiency Report is the South Atlantic Division (SAD).

4. District Quality Control.

District Quality Control (DQC) will be performed on this revision of the Design Deficiency Report. DQC reviews will be conducted by district personnel who did not perform the original work on this Design Deficiency Report and who were not involved in this revision/completion effort.

5. Agency Technical Review (ATR) Risk Informed Decision.

a. Products to Undergo ATR. ATR is mandatory for all CAP decision documents. The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that the revised/completed Design Deficiency Report and NEPA documentation explains the analyses and results in a reasonably clear manner for the public and decision makers. ATR review will include a review of the DQC documentation. The ATR will be conducted by a qualified team from outside the home district but may be from within SAD. This team will not have been involved in the production of the product. The ATR team will be comprised of senior USACE personnel and may be supplemented by outside experts as appropriate. The ATR Team Leader for this CAP Design Deficiency Report revision effort must be from outside the home district but may be from within SAD. SAD has the ability to ensure independence of the ATR Team Leader for this revision/completion of this Design Deficiency Report, the draft of which has already been reviewed by HQ.

b. Required ATR Team Expertise. It is expected that the ATR Team would generally reflect the major technical disciplines of the Northport Levee Repair PDT. As such, it is expected that the ATR team would consist of the following disciplines: Geotechnical, Environmental, Economics, Cost Engineering, and Real Estate.

ATR Team Members/Disciplines	Expertise Required
Environmental Resources	Minimum of 5 years expertise, and this person must have recent experience in compliance with environmental laws (NEPA, Clean Water Act, Endangered Species Act, National Historic Preservation Act, etc).
Economics	The team member should have a minimum of 5 years of economic expertise with an understanding of levee design and construction to recognize sufficiency and appropriate utilization in alternative evaluation, including risk assessment. The team member should have an understanding of economic related requirements as depicted in EM 1110-2-1619 and ER1105-2-101. The team member should also have knowledge of Corps accepted benefits and costs utilized in storm and flood risk management analysis and applicable models.
Geotechnical Engineering	Minimum of 5 years expertise in geotechnical design and construction of levees, to include seepage and stability of flood control structures.
Real Estate	The Real Estate reviewer is to have expertise in the real estate planning process for cost shared and full federal civil works projects, relocations, report preparation and acquisition of real estate interests. The reviewer must have a full working knowledge of EC 405-2-12, Real Estate Planning and Acquisition Responsibilities for Civil Works Projects and Public Law 91-646. The reviewer must be able to identify areas of the REP that are not in compliance with the guidance set forth in EC405-2-12 and will make recommendations for bringing the report into compliance. All estates suggested for use will be reviewed to assure they are sufficient to allow project construction, and the real estate cost estimate will be validated as being adequate to allow for real estate acquisition.
Cost Engineering	Minimum of 5 years expertise in cost engineering, and the Team member must be familiar with the most recent version of MII (MCACES Generation II) software and total project cost summary. This ATR member must be able to review the cost estimates and have recent experience with cost estimating for navigation projects. The Cost Engineering Directory of Expertise (DX) located in the USACE Walla Walla District (NWW) will provide the cost engineering reviews and will sign off on the ATR certification.

6. Independent External Peer Review (IEPR) Risk Informed Decision.

All CAP projects are excluded from Type I Independent External Peer Review (IEPR) except Section 205 and Section 103 Projects. Exclusions from Type I IEPR for Section 205 and Section 103 projects are approved on a case by case basis by the

MSC Commander, based upon a risk informed decision process outlined in EC 1165-2-214.

a. General. EC 1165-2-214 identifies two types of IEPRs. A Type I IEPR is generally for decision documents and Type II is generally for implementation documents. A Type II IEPR is conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. The risk informed recommended decision concerning a Type I IEPR for this Section 205 Design Deficiency Report revision is provided below. As indicated below, the timing and the appropriate expertise requirements for the Type II IEPR Panel for the Design and Construction of the levee replacement will be assessed and submitted for MSC approval in an updated Review Plan prior to initiation of the design/implementation phase of this project.

b. Type I Independent External Peer Review (IEPR) Determination. This revised Design Deficiency Report has been determined to be a decision document. The Type I IEPR exclusion factors from EC 1165-2-214 must be considered in making a recommendation to exclude a decision document from a Type I IEPR. Those exclusion factors are assessed for this revision of the Northport Levee Design Deficiency Report and are discussed below.

- This Design Deficiency levee replacement of a section of the levee DOES involve a significant threat to human life/safety assurance. HOWEVER, this revision of the Design Deficiency Report/decision document phase although being an initial concept design phase of this effort, will not address any alternatives or conceptual design that are not directly associated with replacing/correcting the damaged section of the levee. This is essentially a replacement/repair analysis and the hazards present are well known. Therefore the safety aspects of this revision of the Design Deficiency Report/decision document will not significantly benefit from a Type I IEPR/SAR during the decision document phase. Based on the replacement project identified in the Design Deficiency Report the District Chief of Engineering, as the Engineer-In-Responsible-Charge, recommends a Type II IEPR Safety Assurance Review of this project during the Design and Construction phase of this effort to ensure the assumptions for the hazards present remain valid through the completion of design and construction.
- The total project cost is less than \$45 million;
- There is no request by the Governor of an affected state for a peer review by independent experts;
- The design deficiency correction project does not require an Environmental Impact Statement (EIS),
- The design deficiency correction project/study is not likely to involve significant public dispute as to the size, nature, or effects of the project;
- The design deficiency correction project/study is not likely to involve significant public dispute as to the economic or environmental cost or benefit of the project;

- The information in the decision document or anticipated project design will not to be based on novel methods, involve the use of innovative materials or techniques, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices;
- The project design is not anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule; and
- There are no other circumstances where the Chief of Engineers or Director of Civil Works determines Type I IEPR is warranted.

The PDT has assessed this revision/completion of the Design Deficiency Report, evaluated the questions and answers above and has determined that a Type I IEPR is not warranted on this decision document product.

c. Type II Independent External Peer Review (IEPR) Determination. As stated in the Type I analysis above, based on the replacement project identified in the Design Deficiency Report the District Chief of Engineering, as the Engineer-In-Responsible-Charge, recommends a Type II IEPR Safety Assurance Review of this project during the Design and Construction phase of this effort. The timing and the appropriate expertise requirements for the Type II IEPR Panel for the Design and Construction of the levee replacement will be assessed and submitted for MSC approval in an updated Review Plan prior to initiation of the design/implementation phase of this project.

7. Policy Review.

The Design Deficiency Report will be reviewed throughout the development process for its compliance with law and policy. These reviews will culminate in a determination that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the South Atlantic Division Commander. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods and the presentation of findings in decision documents.

8. Model Certification/Approval.

EC 1105-2-412 dated 13 March 2011, "Planning: Assuring Quality of Planning Models", requires certification (for Corps models) or approval (for non-Corps models) of planning models used for all planning activities. No planning models will be used in this revision of the Design Deficiency Report; therefore, model certification/approval is not required for this project.

9. Approvals.

The South Atlantic Division Commander is responsible for approving this Review Plan. The Review Plan is a living document and may change as the project progresses. The home district is responsible for keeping the Review Plan up to date. Significant changes to the Review Plan (such as changes to the scope and/or level of

review) shall be re-approved by the MSC Commander following the process used for initially approving the plan. The latest version of the Review Plan, along with the Commanders' approval memorandum, will be posted on the Home District's webpage.

10. Review Plan Point of Contact.

Questions and/or comments on this Review Plan can be directed to the following point of contact at the home district or MSC:

Product Delivery Team Members

Office	Discipline	Name	Phone Number
CESAM-PM-CM	Project Manager	David Newell	(251) 690-2328
CESAM-PD-FP	Senior Planner	Charles Owens	(251) 694-3863
CESAM-EN-GG	Project Engineer (PAE)	Valerie Morrow	(251) 690-3376
CESAM-EN-HH	Levee Manager	Nik Hallberg	(251) 690-3381
CESAM-EN-GG	Geotechnical Engineer	Valerie Morrow	(251) 690-3376
CESAM-EN-E	Cost	Rita Perkins	(251) 694-3749
CESAM-PD-EI	Environmental	Heather Bulger	(251) 694-3889
CESAM-RE-P	Real Estate	Russell Blount	(251) 694-3675
CESAM-OP-TN	Construction	Hunter McGonagill	(662) 434-5360
City of Northport Director of Public Works	Sponsor	Brooke Starnes	(205) 333-3003

DQC Review Team Members

Office	Discipline	Name	Phone Number
CESAM-EN-GG	Geotechnical	Ron Nettles	(251) 690-3437
TBD	Economics	TBD	TBD
CESAM-EN-DA	Environmental	Brian Zettle	(251) 690-2115
CESAM-RE-P	Real Estate	Ed Blocher	(251) 694-3662
CESAM-PD-EC	Cost	Joe Ellsworth	(251) 690-2628

ATR Team Members

Office	Discipline	Name	Phone Number
TBD	Geotechnical	TBD	TBD
TBD	Economics	TBD	TBD
TBD	Environmental	TBD	TBD
TBD	Real Estate	TBD	TBD
TBD	Cost	TBD	TBD