



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

CESAD-RBT

14 DEC 2012

MEMORANDUM FOR COMMANDER, Wilmington District (CESAW-TS-E/
GREG L. WILLIAMS)

SUBJECT: Approval of Review Plan for Wrightsville Beach Periodic Maintenance Nourishment, Plans and Specification and Design Documentation Report, Wrightsville Beach, North Carolina

1. References:

a. Memorandum, CESAW-TS-E, 11 December 2012, Subject: Approval of Review Plan for Wrightsville Beach Periodic Maintenance Nourishment, Implementation Documents, Wrightsville Beach, North Carolina (Enclosure).

b. EC 1165-2-209, Civil Works Review Policy, 31 January 2010.

2. The enclosed Review Plan for the Plans and Specifications for Maintenance Nourishment for the Wrightsville Beach Hurricane Wave and Shore Protection Project, North Carolina has been reviewed by this office and is hereby approved in accordance with references 1.b above.

3. We concur with the conclusion of the District Chief of Engineering that Type II Independent External Peer Review (Type II IEPR) is not required for this periodic renourishment of the Wrightsville Beach Hurricane Wave and Shore Protection Project. The primary basis for our concurrence that a Type II IEPR is not required is that the failure or loss of the beach fill does not pose a significant threat to human life. We also concur with the conclusion that Agency Technical Review (ATR) is not required on this periodic maintenance nourishment effort since the design duplicates previous editions of the Plans and Specification that have been successfully used in the past.

4. The District should take steps to post the Review Plan to its web site and provide a link to CESAD-RBT. Before posting to the web site, the names of Corps/Army employees should be removed. Subsequent significant changes to this Review Plan, should they become necessary, will require new written approval from this office.

5. The SAD point of contact is Mr. James Truelove, CESAD-RBT, 404-562-5121.

DONALD E. JACKSON, JR.
COL, EN
Commanding

Encl



REPLY TO
ATTENTION OF:

DEPARTMENT OF THE ARMY
WILMINGTON DISTRICT, CORPS OF ENGINEERS
69 DARLINGTON AVENUE
WILMINGTON, NORTH CAROLINA 28403-1343

CESAW-TS-E

11 December 2012

MEMORANDUM FOR Commander, US Army Corps of Engineers, South Atlantic Division (CESAD-RBT), ATTN: Jim Truelove, CESAD-RBT, Rm 10M15, 60 Forsyth Street, SW, Atlanta, Georgia 30303-8801

SUBJECT: Approval of Review Plan for Wrightsville Beach Periodic Maintenance Nourishment, Implementation Documents, Wrightsville Beach, North Carolina

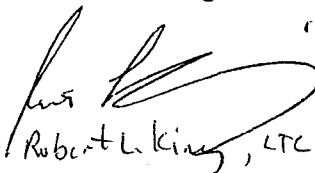
1. References

a. EC 1165-2-209, Civil Works Review Policy, 31 Jan 2010

2. I hereby request approval of the enclosed Review Plan for the Plans and Specifications and Design Documentation Report (DDR) for Periodic Maintenance Nourishment, Wrightsville Beach, North Carolina. The Review Plan complies with applicable policy and includes our DQC and ATR plans for this project.

3. The district will post the Corps of Engineers, South Atlantic Division (CESAD) approved Review Plan to its website and provide a link to the CESAD for its use. Names of Corps/Army employees are withheld from the posted version, in accordance with guidance.

Encl


for Robert L. King, LTC, EN
STEVEN A. BAKER
Colonel, EN
Commanding



**US Army Corps
of Engineers
Wilmington District**

Review Plan

For

Periodic Maintenance Nourishment

For

**Wrightsville Beach, North Carolina
Coastal Storm Damage Reduction Project**

Beach Renourishment 2014

P2 #: 113750

**U.S. Army Corps of Engineers
Wilmington District
Wilmington, North Carolina**

30 November 2012

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

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1. PURPOSE AND REQUIREMENTS

1.1 Purpose

This Review Plan defines the scope and level of review activities for design of the Wrightsville Beach Hurricane Wave and Shore Protection Beach Renourishment Project. The review activity consists of District Quality Control (DQC) . The project is in the Periodic Nourishment Phase and the related documents are other work products that consist of Plans and Specifications (P&S) and a Design Documentation Report (DDR). Upon approval, this review plan will be included into the Project Management Plan as an appendix to the Quality Management Plan.

1.2 References

- ER 1110-2-1150, Engineering and Design for Civil Works Projects, 31 Aug. 1999
- ER 1110-1-12, Engineering and Design Quality Management, 30 Sep. 2006
- EC 1165-2-209, Civil Works Review Policy, 31 Jan. 2010
- Public Law 87-874 1962
- WRDA 1986 Public Law 00-662
- Quality Control Plan
- Project Management Plan

1.3 Requirements

This review plan was developed in accordance with EC 1165-2-209, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and Operation, Maintenance, Repair, Replacement and Rehabilitation (OMRR&R). The EC provides the procedures for ensuring the quality and credibility of U.S. Army Corps of Engineers (USACE) decision, implementation, and operations and maintenance documents and other work products. The EC outlines three levels of review: District Quality Control, Agency Technical Review, and Independent External Peer Review. Refer to the EC for the definitions and procedures for the three levels of review.

1.4 Review Management Organization (RMO).

The South Atlantic Division is designated as the RMO.

2. PROJECT INFORMATION AND BACKGROUND

2.1 Project Description

The Wrightsville Beach project was originally authorized by Public Law 87-874 in 1962. The project covers 14,000 feet of ocean shoreline extending north from Masonboro Inlet and consists of a beach fill shaped in the form of a 25-foot wide dune at elevation 13.5 feet above NGVD (National Geodetic Vertical Datum) fronted by a 50-foot wide storm berm at elevation 10.5 feet above NGVD. A reevaluation of the Wrightsville Beach project was made in September 1982

with the results provided in a report entitled "Feasibility Report and Environmental Assessment on Shore and Hurricane Wave Protection, Wrightsville Beach, North Carolina." as a result of this reevaluation, the Wrightsville Beach project was reauthorized by the Water Resources Development Act of 1986 (PL 00-662) with the new authorization extending Federal cost sharing for beach nourishment for the life of the project. The project protects approximately 2.65 miles of beach, which includes the Town of Wrightsville Beach. The protection provided comes from the reduction of damage from storms and loss of land and structures due to long-term erosion.

Construction of the beach nourishment project was initiated in 1965 with the placement of 2,993,100 cubic yards of material along 14,000 lineal feet of shoreline beginning at Masonboro Inlet. Material to initially construct the project was obtained from Banks Channel, a narrow sound lying immediately behind Wrightsville Beach. Additional berm and dune construction increments have been accomplished using nearby submerged borrow sites. The project is renourished at approximately 4-year increment with the last renourishment being completed in February 2010. The proposed renourishment in 2014 will restore the authorized design dune and berm template in the areas to be determined by surveys.

3. AGENCY TECHNICAL REVIEW

Agency Technical Review (ATR) is undertaken to "ensure the quality and credibility of the government's scientific information" in accordance with EC 1165-2-209 and ER 1110-1-12. This project is considered as an other work product based on the P&S and DDR having been successfully used on prior renourishment efforts. For other work products, judgment will be used in determining "whether ATR is appropriate for products that are not either a decision or implementation document."

3.1 ATR Determination

The Project consists of periodic maintenance consisting of beach renourishment for Wrightsville Beach. The District has completed the maintenance cycle eight times since 1981 utilizing the borrow area identified for this work. The project will be completed within the authorized boundary limits and design template. In order to make a risk-informed decision in determining the appropriate levels of review, the following questions have been considered:

- (1) Does it include *any* design (structural, mechanical, hydraulic, etc)? *Yes. Hydraulic analysis will be required to ensure optimum placement of material based on funding available, however, no revisions to the project template will be required.*
- (2) Does it evaluate alternatives? *No*
- (3) Does it include a recommendation? *No*
- (4) Does it have a formal cost estimate? *No*
- (5) Does it have or will it require a NEPA document? *No revision to the existing NEPA document will be required.*

- (6) Does it impact a structure or feature of a structure whose performance involves potential life safety risks? *No*
- (7) What are the consequences of non-performance? *The beach is designed to protect structures through its sacrificial nature and is continually monitored and renourished in accordance with program requirements and constraints. Failure or loss of the beach fill will not pose a significant threat to human life.*
- (8) Does it support a significant investment of public monies? *Yes. Significant investment was made during the initial construction in 1965. The scope and budget for this maintenance cycle falls within the Section 902 limits for the project.*
- (9) Does it support a budget request? *No*
- (10) Does it change the operation of the project? *No*
- (11) Does it involve ground disturbances? *Yes. Ground disturbances are consistent with those contemplated in the project authorization.*
- (12) Does it affect any special features, such as cultural resources, historic properties, survey marker, etc, that should be protected or avoided? *No*
- (13) Does it involve activities that trigger regulatory permitting such as Section 404 or stormwater/NPDES related actions? *No*
- (14) Does it involve activities that could potentially generate hazardous wastes and/or disposal of materials such as lead based paints or asbestos? *No*
- (15) Does it reference use of or reliance on manufacturer's engineers and specifications for items such as prefabricated buildings, playground equipment, etc? *No*
- (16) Does it reference reliance on local authorities for inspection/certification of utility systems like wastewater, stormwater, electrical, etc? *No*
- (17) Is there or is there expected to be any controversy surrounding the Federal action associated with the work product? *No*

Based on the above analysis of the project scope, risks associated with the project do not indicate that it should be considered as decision or implementation documents. As previously stated the P&S and DDR have previously been successfully used on prior renourishment efforts and therefore are considered a replacement-in-kind and an other work product under EC 1165-2-209. Also based on the above answers and information an ATR is not recommended.

3.2 ATR Operational Procedures

If the project scope is changed, the determination that an ATR is not needed/recommended will be reevaluated.

4. INDEPENDENT EXTERNAL PEER REVIEW (WRDA 2007 Section 2035 Safety Assurance Review)

EC 1165-2-209 provides implementation guidance for both Sections 2034 and 2035 of the Water Resources Development Act (WRDA) of 2007 (Public Law (P.L.) 110-114). The EC addresses review procedures for both the Planning and the Design and Construction Phases (also referred to in USACE guidance as the Feasibility and the Pre-construction, Engineering and Design Phases). The EC defines Section 2035 Safety Assurance Review (SAR), Type II Independent External Peer Review (IEPR). The EC also requires Type II IEPR be managed and conducted outside the Corps of Engineers.

4.1 Type I IEPR

A Type I IEPR is associated with decision documents. No decision documents are addressed/covered by this Review Plan. A Type I IEPR is not applicable to the P&S and DDR covered by this Review Plan.

4.2 Type II IEPR, Determination

This shore protection project does not trigger WRDA 2007 Section 2035 factors for Safety Assurance Review (termed Type II IEPR in EC 1165-2-209) and therefore, a Type II IEPR review under Section 2035 and/or EC 1165-2-209 is not required. The factors in determining whether a review of design and construction activities of a project is necessary as stated under Section 2035 and EC 1165-2-209 along with this review plans applicability statement follow.

- (1) The failure of the project would pose a significant threat to human life.

This project will perform a periodic nourishment that will re-establish a beach. The beach is designed to protect structures through its sacrificial nature and is continually monitored and renourished in accordance with program requirements and constraints. Failure or loss of the beach fill will not pose a significant threat to human life.

In addition, the prevention of loss of life within the project area from hurricanes and severe storms is via public education about the risks, warning of potential threats and evacuations before hurricane landfall as previously indicated.

- (2) The project involves the use of innovative materials or techniques.

This project will utilize methods and procedures used by the Corps of Engineers on other similar works.

(3) The project design lacks redundancy.

The beach fill design is in accordance with the USACE Coastal Engineering Manual. The manual does not employ the concept of redundancy for beach fill design.

(4) The project has a unique construction sequencing or a reduced or overlapping design construction schedule.

This project's construction does not have unique sequencing or a reduced or overlapping design. The installation sequence and schedule has been used successfully by the Corps of Engineers on the other similar works.

As indicated above, this project does not pose a significant threat to human life, and does not trigger any of the EC 1165-2-209 factors for Type II IEPR. Therefore, the District Chief or Engineers as the Engineer in Responsible Charge recommends not undertaking a Type II IEPR of these P&S and DDR.

5. MODEL CERTIFICATION AND APPROVAL

Use of additional models are not necessary for the Plans and Specifications and the Design Documentation Report.

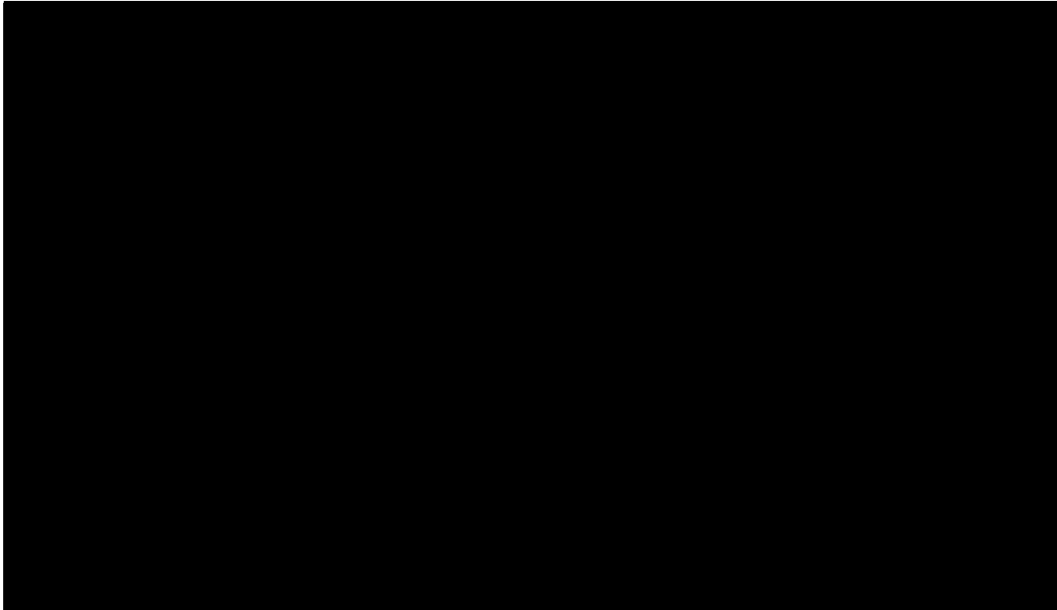
6. ESTIMATED COSTS AND SCHEDULE

6.1 Project Milestones

District Quality Control	TBD
District BCOE	TBD
BCOE Certification	TBD
Issue Date	TBD
Bid Opening	TBD
Construction Contract Award	TBD

7. POINTS OF CONTACT

Per guidance, the names of the following individual will not be posted on the Internet with the Review Plan. Their titles and responsibilities are listed below.



8. MSC APPROVAL

The MSC that oversees the home district is the South Atlantic Division and it is responsible for approving the review plan. Approval will be provided by the MSC Commander. The commander's approval should reflect vertical team input (involving district, MSC, and HQUSACE members) as to the appropriate scope and level of review for the pre-construction and engineering design phase of this effort. Like a PMP, the Review Plan (RP) is a living document and may change as work progresses. Significant changes to the RP should be approved by following the process used for initially approving the RP. In all cases the MSCs will review the decision on the level of review and any changes made in updates to the project.

Attachment 1

ACRONYMS AND ABBREVIATIONS

ATR – Agency Technical Review
BCOE – Biddability, Constructability, Operability and Environmental
CESAD – U.S. Army Corps of Engineers South Atlantic Division
DCP – District Control Plan
DDR – Design Documentation Report
DQC – District Quality Control
EC – Engineer Circular
EIS – Environmental Impact Statements
ER – Engineer Regulations
GRANDUC – Generalized Risk And Uncertainty Coastal
HQUSACE – Headquarters U.S. Army Corps of Engineers
IEPR – Independent External Peer Review
MSC – Major Subordinate Command
PDT – Project Delivery Team
PMP – Project Management Plan
P&S – Plans and Specifications
RMC – USACE Risk Management Center
RMO – Review Management Organization
RP – Review Plan
RTS – Regional Technical Specialists
SAD – South Atlantic Division
SAJ – Jacksonville District
SAW – Wilmington District
SAR – Safety Assurance Review
SME – Subject Matter Expert
USACE – U.S. Army Corps of Engineers
WRDA – Water Resources Development Act