



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
PACIFIC OCEAN DIVISION, CORPS OF ENGINEERS
FORT SHAFTER, HAWAII 96889-6440

CEPOD-PDC

29 November 2007

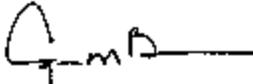
MEMORANDUM FOR COMMANDER, HONOLULU ENGINEER DISTRICT, AT IN:
CEPOH-PP-C

Subject: Review Plan Approval for the (Kalaeloa) Barbers Point Harbor Navigation Improvements, Island of Oahu, State of Hawaii Study

1. The enclosed Review Plan for the (Kalaeloa) Barbers Point Harbor Navigation Improvements, Island of Oahu, State of Hawaii study has been prepared in accordance with EC 1105-2-408 and the Director of Civil Works' "Peer Review Process" memorandum dated March 30, 2007.
2. The Review Plan is available for public comment, and the comments received will be incorporated into the Review Plan as appropriate. The Review Plan will be coordinated with the Deep Draft Navigation Planning Center of Expertise of the South Atlantic Division, U.S. Army Corps of Engineers, which is the lead office to execute this Review Plan. The Review Plan does not include external peer review because the scope and technical complexity of the feasibility report and Environmental Assessment are not expected to be novel, controversial or precedent setting.
3. I hereby approve this Review Plan, which is subject to change as study 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.
4. The point of contact for this Review Plan can be reached at (808) 438-2250.

FOR THE COMMANDER:

Encl


EUGENE M. BAN, P.E.
Director of Programs

**QUALITY CONTROL
AND
PEER REVIEW PLAN
FOR
(KALAELOA) BARBERS POINT HARBOR
MODIFICATION PROJECT
ISLAND OF OAHU, STATE OF HAWAII
November 2007**

For questions or comments regarding this Quality Control and Peer Review Plan, please forward your comments to:

Title	Telephone	Email
Project Manager	808 438 2250	KALAELOAHARBOR@usace.army.mil

THE INFORMATION CONTAINED IN THIS QUALITY CONTROL AND PEER 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, HONOLULU DISTRICT. IT DOES NOT REPRESENT AND SHOULD NOT BE CONSTRUED TO REPRESENT ANY AGENCY DETERMINATION OR POLICY.

**QUALITY CONTROL
AND
PEER REVIEW PLAN
FOR
(KALAELOA) BARBERS POINT HARBOR
MODIFICATION PROJECT
ISLAND OF OAHU, STATE OF HAWAII**

1. PURPOSE

The QCP was formulated to provide for a sound technical peer review process that focuses on several objectives. Primarily, quality technical products will be produced through an effective and comprehensive single level technical review process throughout product development while verifying that functional, legal, safety, health and environmental requirements are satisfied. This peer review process will ensure that a cost-effective solution, while maintaining product requirements, is developed. Technical review will also act as a mechanism to avoid redesign efforts, and will assure accountability for the technical quality of the product. Each technical review objective in the QCP will be satisfied through a peer review process performed by an Independent Technical Review (technical quality control), Pacific Ocean Division (POD) (quality assurance of technical products and review), and Headquarters (HQUSACE) (policy review).

2. APPLICABILITY

This document provides the QCP for the decision document of the PED phase. It identifies quality control processes and peer review for all work to be conducted under this study authority, including in-house, sponsor and contract work.

3. REFERENCES

- EC 1105-2-408, “Peer Review of Decision Documents”, dated May 31, 2005
- ER 1105-2-100, “Planning Guidance Notebook & Appendices D, F, G & H”
- CECW-CP Memorandum, “Peer Review Process”, dated March 30, 2007
- Honolulu District Quality Management Plan, “CEPOH-C.10102.0 Coastal, Hydraulics, Hydrology, Economics”

4. PROJECT BACKGROUND

(Kalaeloa) Barbers Point Harbor is located on the Ewa plains along the western coast of the Island of Oahu, Hawaii, and is situated adjacent to the 1,367-acre James Campbell Industrial Park (Oahu's major industrial area) and the 800-acre Kapolei Business Park. The harbor was originally intended to serve as a deepwater relief harbor for the port of Honolulu and to service the shipping requirements of the industries at Campbell Industrial Park, thus eliminating or reducing the need for considerable overland transshipment expense involved in importing and exporting via Honolulu Harbor and the congested Honolulu metropolitan area. However, the rapid development and growth of the Ewa plains region and the establishment of the community of Kapolei as Oahu's second urban center have placed increased importance and demand on the harbor to service the growing communities, businesses, and industries in the area.

The harbor was constructed in 1985 by the State of Hawaii and U.S. Army Corps of Engineers at a cost of \$59,000,000. The general navigation features include an offshore entrance channel 3,300 feet long, 450 feet wide, and 42 feet deep; a 38-foot deep inshore channel, 980 feet long, and 450 feet wide flaring to 650 feet over the last 200 feet; a 92-acre inshore basin, 38 feet deep; and, 4,600 feet of wave absorber structures. Since the original harbor construction, the State of Hawaii, Department of Transportation (DOT) expanded the main harbor basin to the northeast by excavating a 600-foot wide by 1,100-foot long section with a depth of 38-feet. The harbor also incorporates a 21-foot deep barge basin, which was constructed in 1961 by the Estate of James Campbell.

The ongoing Feasibility Phase involves development of a Detailed Project Report (DPR) and Supplemental Environmental Impact Statement (SEIS). The DPR will determine whether a federal interest exists in participating in the aforementioned harbor modifications, and if so, identify a federally recommended plan based on a cost-benefit analysis, the SEIS (required under the National Environmental Protection Act) will identify impacts to the environment associated with alternative plans identified in the DPR and appropriate mitigation measures.

5. PEER REVIEW PLAN

The components of this Quality Control and Peer Review Plan were developed pursuant to the requirements of EC 1105-2-408 and CECW-CP memorandum referenced in paragraph 3.

The decision documents identified for peer review are the Alternative Formulation Briefing (AFB), draft DPR and draft SEIS.

The AFB document will be reviewed to ensure that the plan formulation and selection process, the tentatively selected plan and the definition of Federal and non-Federal responsibilities are consistent with applicable laws, statutes, Executive Orders, regulations and current policy guidance. The AFB meeting also brings together the Corps' District, Division and Headquarters personnel, the non-Federal sponsor and resource agencies to resolve any legal or policy concerns and allow the District to release the draft Decision Document to the public.

The draft DPR/SEIS will describe the process and final selection of the recommended plan and the environmental and cultural resources compliance coordination. This document will be reviewed by the Independent Technical Review team and by interested public during the review period following the formal public meeting. The final DPR/SEIS will address public comments obtained in the public review process and if approved, will allow the project to proceed into the development of Plans and Specifications.

A. GENERAL PEER REVIEW REQUIREMENTS

Initial Quality Control (QC) review will be handled within the Honolulu District's Civil Works Technical Section performing the work. Additional QC will be performed by the Project Delivery Team (PDT) during the course and prior to completing the Scoping Meeting and Alternative Formulation Briefing documents. The detailed checks of computations and methodology will be performed at the District level, and the processes for this level of review are well established as described in the District's quality management plan for hydrologic analysis, hydraulic designs and economic analysis, referenced in paragraph 3.

In accordance with Corps' Engineering Circular EC 1105-2-408, Independent Technical Review (ITR) is the minimum review requirements for all decision documents and projects requiring Congressional authorization. ITR is the part of the QC process which confirms the proper selection and application of clearly established criteria, regulations, laws, codes, principles and professional procedures to ensure a quality product. It also confirms the use of clearly justified and valid assumptions that are in accordance with Corps policy. Subject matter Corps experts outside of the performing District are selected to form an ITR team in coordination with the Corps' Planning Center of Expertise (PCX) for Navigation at the Corps' Mobile District office.. The PCX for Navigation serves as the focal point for coordinating and ensuring that technical review of projects is performed in accordance with established Corps policy.

An External Peer Review (EPR) is required in special cases where the risk and magnitude of the proposed project are such that a critical examination by a qualified person or team outside of the Corps organization and not involved in the day-to-day production of a technical product is necessary. In addition, EPR is required for projects where information is based on novel methods, presents complex challenges for interpretation, contains precedent-setting methods or models, presents conclusions that are likely to change prevailing practices, or is likely to affect policy decisions that have a significant impact. If an EPR is determined to be required, members from the National Science Academy or other well-known scientific organization are selected to conduct the technical reviews.

B. PROJECT DELIVERY AND ITR TEAMS

The Project Delivery Team (PDT) is led by the Project Manager and consists of the sponsors and multi-disciplined technical and support representatives. The PDT develops and performs the baseline requirements of scope, schedule and cost in order to meet project execution goals. The technical functions includes various disciplines including but not limited to coastal engineering, civil, geotechnical, and structural engineering; economics, real estate, cost estimating, plan formulation, and environmental and cultural resources. Support function representatives include regulatory, construction, value engineering, contracting, budgeting, legal review and GIS mapping.

Due to confidentiality law requirements with posting documents on websites for public review, only the Project Manager is listed as the point of contact for any questions concerning this Peer Review Plan and qualifications of members of the PDT team:

Title	Telephone	Email
Project Manager	808 438 2250	KALAELOAHARBOR@usace.army.mil

The ITR team is led by the ITR Team Leader and consists of technically knowledgeable and experienced personnel representing each of the technical disciplines of the PDT. Generally, ITR team personnel have more than 10 years of experience in their technical discipline. ITR team members are normally personnel outside of the performing Corps District and do not have any involvement with the day-to-day technical work that supports the decision document.

Due to confidentiality law requirements with posting documents on websites for public review, only the Project Manager is listed as the point of contact for any questions concerning qualifications of members of the ITR team. The Project Manager will coordinate responses with the ITR team leader for comments concerning the ITR team.

Title	Telephone	Email
Project Manager	808 438 0881	KALAELOAHARBOR@usace.army.mil

C. INDEPENDENT TECHNICAL REVIEW PLAN

The ITR will be coordinated by the Corps' Mobile District and will be scheduled for February 2008.

In general, the ITR will focus on:

- Reviewing the technical procedures and assumptions applied in completing alternative designs, economic analyses, and real estate appraisals for the

Scoping Meeting, Alternative Formulation Briefing and Draft Decision documents.

- Ensuring compliance with National Environmental Policy Act (NEPA) requirements.
- Ensuring that plan formulation of preliminary designs is complete, effective, efficient and acceptable in addressing project problems and opportunities.
- Ensuring that required documents are complete in accordance with the Planning Guidance Notebook, reference above.

D. EXTERNAL PEER REVIEW PLAN

An External Peer Review (EPR) for this study is not being recommended at this time as it is highly unlikely that the Corps report will contain influential scientific information. There are no controversial or complex issues associated with this study, nor will the study recommend any procedure that would be precedent setting or change prevailing practices.

E. MODEL CERTIFICATION

The study used physical and numerical models to develop project information. These models are in common use, and were adapted to specific project conditions. There are no current requirements for certification of these models. Other analytical tools, such as spreadsheets developed for computation of project costs and benefits were also used and do not require certification. The use and application of all models are subject to ITR. A brief summary of models used is provided below.

Physical Model:

In 1991 an undistorted physical model of Kalaeloa Barbers Point Harbor was constructed at a scale of 1:75 (model: prototype). The model extends out to the 30.5 m (100 ft) MLLW depth contour and includes approximately 1070 m (3,500 ft) on either side of the entrance channel. The model was constructed so that the channel and harbor depths could be deepened from the existing depths to depths that are 7 ft deeper. In 1998 the physical model was refurbished to conduct model runs to optimize underkeel clearance in the harbor. It was recognized that the clearances derived upon Corps criteria may be too restrictive considering the current State operating conditions. The physical model set out to determine the optimum vessel draft/entrance-channel depth combination that can safely transit the harbor. The results of the physical modeling are included in the draft Technical Report CHL-99-P and "Briggs, M. J. and Melito, I. (2002), *Barbers Point Harbor, Hawaii, Jetty Modification Study*, US Army Corps of Engineers, Technical Report TR-02-xx, Engineer Research and Development Center, Coastal and Hydraulics Laboratory, Vicksburg, Mississippi."

Numerical Model:

STWAVE (STeady State spectral WAVE) is an easy-to-apply, flexible, robust, half-plane model for nearshore wind-wave growth and propagation. STWAVE simulates depth-induced wave refraction and shoaling, current-induced refraction and shoaling, depth- and steepness-induced wave breaking, diffraction, parametric wave growth because of wind input, and wave-wave interaction and white capping that redistribute and dissipate energy in a growing wave field.

F. ADDITIONAL REVIEW CONSIDERATIONS

Public and Agency Comment and Dissemination

Public involvement has been encouraged throughout the preparation of the Decision Document and will continue through the project review process. Several public information and agency scoping meetings have been conducted and future meetings are planned. Public information meetings are usually conducted at the community's public school facility or at local neighborhood board meetings to inform the general public, other federal and state agencies and interested stakeholders of the status of the project and alternatives being considered. In addition, there will also be a public meeting during the public review period of the draft DPR/SEIS before the publication of the final documents.

