DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DIVISION, GREAT LAKES AND OHIO RIVER
CORPS OF ENGINEERS
550 MAIN STREET, ROOM 10-009
CINCINNATI, OHIO 45201-1159

REPLY TO ATTENTION OF

OCT 20 2008

CELRD-PDS-P

MEMORANDUM FOR Commander, Mississippi Valley Division

SUBJECT: Planning Center of Expertise for Inland Navigation (PCXIN) Endorsement of the Review Plan for the Calcasieu Lock, Calcasieu, Louisiana, Feasibility Study and Environmental Impact Statement.

1. The Review Plan (RP) for the subject study (attachment 1) has been presented to the PCXIN for review in accordance with EC 1105-2-410, Appendix B, dated 22 August 2008. The purpose of a review plan is to assign the appropriate level and review independence, establish the procedures, and assign responsibilities for conducting the Agency Technical Review (ATR) and Independent External Peer Review (IEPR).

2. Through communications between the PCXIN and the New Orleans District, the PRP has been revised to comply with the requirements of the Corps Review Process. Therefore, the PCXIN recommends approval of the PRP by the Mississippi Valley Division (MVD).

3. Once finalized in MVD, the District is requested to post the Peer Review Plan to its web site and provide a link to the PCXIN for their use. Point of Contact for this effort is Mr. David A. Weekly at (304) 399-5635 (CELRH-NC).

Encl

THEODORE A. BROWN, P.E., M.B.A.
Chief, Planning and Policy Division
Great Lakes and Ohio River Division

Review Plan

Calcasieu Lock
Calcasieu, Louisiana

October 2008

PURPOSE
This review plan was developed for Calcasieu Lock Feasibility Study to comply with EC 1105-2-410, "Review of Decision Documents," dated 22 Aug 2008. The purpose of the review plan is to present a process through which decision documents produced by the Corps of Engineers are evaluated to ensure both quality and credibility. The following document outlines the approach to be used by the project team to fulfill the requirement of the two review approaches, which include agency technical review (ATR) and independent external peer review (IEPR), and to detail the involvement of the Corps Planning Center's of Expertise (PCX) in the approaches. This document addresses review of the decision document as it pertains to both approaches and planning coordination with the appropriate PCX.

In addition to the review provided by the established ATR process, the IEPR has been added to the existing Corps review process, to provide an additional external examination of projects with high risk or project magnitude. IEPR can also be used where the information is based on novel methods, presents complex interpretation challenges, contains precedent-setting methods or models, or is likely to affect policy decisions that have a significant impact. The degree of independence required for technical review increases as the project magnitude and project risk increase.

This document also details proposed coordination between the project delivery team (PDT) and the PCX.

1. Project Description

The Corps of Engineers, New Orleans District (CEMVN) is undertaking a Feasibility Study of Calcasieu Lock to assess the feasibility of replacing the lock to alleviate traffic problems that have developed in the area.

Project History. Calcasieu Lock, which was completed in 1950, is a feature of the Gulf

Intracoastal Waterway between Apalachee Bay, Florida, and the Mexican Border Project. The lock has dimensions of 13 by 75 by 1,206 feet and is located east of the Calcasieu River, approximately 10 miles south of Lake Charles, Louisiana, in Calcasieu Parish. The structurally sound lock prevents saltwater intrusion from the Calcasieu River into the Mermentau River basin, a major rice producing area. As one of five locks in the Mermentau Basin, Calcasieu Lock provides one of only five outlets for water drainage in the basin. During periods of high water, the lock is currently being used to drain water out of the basin, alleviating local flooding. The use of the lock for flood control impacts traffic going through Calcasieu Lock.

As a feasibility study of a lock replacement on an inland waterway, the project study is funded with 100% Federal funds [Section 102, WRDA 1986 (P.L. 99-662].

Intracoastal Waterway Locks, Louisiana, a reconnaissance study completed in 1992, determined that there is an immediate need for capacity increases at Bayou Sorrel and Calcasieu locks. The Calcasieu Lock Section 905(b) analysis found a benefit-cost ratio of 1.2:1 for provision of a new lock and recommended proceeding with feasibility phase studies. A benefit –cost ratio for the feasibility phase was calculated at 2.3 to 1. The costs and benefits, however, are being revisited to reflect post-Hurricane Rita price increases.

Delays to the completion of the study have resulted from sporadic funding of the project; as a result, many of the previously completed analyses will need to be redone. The current schedule, contingent on timely and sufficient funding, will result in a completed feasibility study by September of 2011.

The current schedule includes the following efforts:

a. Modeling contract to evaluate the flood control impacts of lock operation;

b. Alternative plan formulation and evaluation for H&H, preliminary designs, and environmental analysis;

c. Economic analyses of navigation (and flood control) benefits;

d. Barge simulation model to evaluate navigability of alternatives;

e. Environmental assessment of the area to be impacted by the project;

f. Cultural resources and land use history investigations;

g. Cultural resources and land use history contract.

Problems and Opportunities. The Calcasieu Lock provides the only navigation outlet for the area. As traffic has increased for the area, locking times have grown. Barge tows are also delayed due to the size of the lock and the need to break them apart in order to transit. Salinity intrusion is a problem because of the number of lockages required in a day. In 1994 Corps representatives agreed to modify the operation of Calcasieu Lock to the current methodology, which is driven primarily by flooding. The basin requires approximately 6-weeks to re-establish a stage below +2.0 MLG following major rainfall events. There are some water quality issues north of the Gulf Intracoastal Waterway (GIWW) due to salinity and agricultural activities (pesticides, etc.). Existing models do not capture the damages or benefits in the Mermentau Basin - only that area immediately

north of the GIWW and all of the area south of the GIWW, along the coast. The opportunity now exists to address all of these issues through the replacement of the lock, which will provide flood protection benefits, environmental benefits relating to reduced saltwater intrusion, and navigation benefits through decreased lockage times.

Project Delivery Team (PDT) members. The PDT comprises the individuals directly responsible for the development of the decision document. The New Orleans District Corps of Engineers (CEMVN) is conducting this study. The Corps' project manager, Crorey Lawton, is the primary POC for the PDT. Contact Mr. Lawton by telephone at (504) 862-1281 or by e-mail at james.m.lawton@mvn02.usace.army.mil. Other team members will include members from the following disciplines:

Table 1. PDT Members

Project Manager
Waterways, Hydraulics Eng.
Surveys
Economics
Economics
Program Analyst – PM
Senior Project Manager
Functional Team Leader, Eng
Environmental
Cultural

Additional team members from real estate, geotechnical, design services, cost engineering, and engineering are being assigned to replace recently retired and promoted team members.

2. Model Certification

The planning models to be used by the project to evaluate environmental (Wetland Value Assessments) and economic (Rate study, Agricultural study) aspects of the project will be models certified by the US Army Corps of Engineers, and will be reviewed by ATR to ensure that the input for these models are both appropriate and acceptable uses of the models.

The Wetland Value Assessments (WVAs) will address the positive and negative impacts to the area as a result of the project, and will be used to identify the mitigation actions and benefits that will accrue as by-products of the completion of the lock replacement.

The economic rate study is a model that is used to identify traffic expected to go through the lock. The rate study will: 1) develop detailed transportation rate data for origin/destination commodity trips and, 2) develop detailed transportation rate data for each of these movements' least-cost all overland alternate route. Determining the least-cost all overland alternate route may require the costing of a set of alternate routes and modes, which shall be displayed in the analysis.

The agriculture study will use the information from the flood evaluation and identify areas that will have impacts resulting from flooding in the area, and will address the expected differences between with and without-project impacts to the economy of the

agricultural areas surrounding the lock.

3. Review of the Decision Document

Evaluation of the decision document will comprise several levels of review, including review by an ATR and IEPR, as coordinated by a Corps PCX or managed by an outside eligible organization.

Planning Center of Expertise (PCX). A Corps of Engineers PCX, other than the New Orleans District, will be responsible for verifying that the CEMVN's products meet the needs and expectations of the customer and that competent technical resources are utilized throughout the design and review process. I'd add a sentence that says "The PCX will designate a Peer Review Manager to coordinate with the other PCX's, the PM, and ATR and the Outside Eligible Organization (OEO) managing the IEPR. Six PCX's exist throughout the Corps, each with their own primary business program. Review is assigned to the appropriate Corps PCX based on these business programs.

The Calcasieu Lock feasibility study falls under the PCX business program "Navigation." ATR for studies grouped in this program are performed under the supervision of the Inland Navigation Planning Center of Expertise (304-399-6938). The primary purpose of the decision document is navigation, with secondary concerns involving flood control and ecosystem restoration. The ATR will be managed and conducted by a qualified team outside the New Orleans District. The ATR team will be comprised of senior USACE personnel, Regional Technical Specialists (RTS), or outside experts as appropriate. The leader of the ATR team will be from outside the Mississippi Valley Division.

The Center will also arrange for IEPR to complement the review of the ATR. The IEPR will involve subject matter experts outside the Corps of Engineers to review and evaluate the project at two stages during its development.

The review of the ATR team and the IEPR team will provide additional confidence to the project team that the proposed project both uses suitable methods to achieve its goals and has applied appropriate models to accomplish the aims of the project.

In addition to the reviews of the ATR and IEPR teams, the Calcasieu Lock Replacement project will also go out for public review. The public review will provide open access to the feasibility study to interested parties. The comments from public review will provide a necessary and integral part of the review process. The comments will be incorporated in the final product as detailed below.

4. Agency Technical Review

Pursuant to EC1105-2-410, the feasibility study and resultant documents will require review by a Corps agency technical review (ATR) team assigned by the Planning Center of Expertise (PCX) for Inland Navigation. The Director, Inland Navigation Center of Expertise, will select this team. As the cost engineering must be reviewed by the DX for Cost Engineering in Walla Walla District, the Director will also coordinate with this DX to establish the cost engineering ATR team member. The ATR will examine the Feasibility Scoping Meeting (FSM) and Alternative Formulation Briefing (AFB) submittal materials,

draft and final decision documents, supporting documents, and other supporting analyses to ensure the adequacy of the presented methods, assumptions, criteria, decision factors, applications, and explanations. The review will cover a main report, an engineering appendix, an economic appendix, a real estate plan, and environmental appendix.

The Quality Management Plan (QMP) for the Calcasieu Lock, Calcasieu, LA will be consistent with the CEMVN Quality Control Plan for Planning Studies and the CEMVN Quality Management Plan (www.intra.usace.army.mil/eng/eda/nodqmp6.doc). The QMP includes an agency technical review (ATR) plan to ensure that quality products are developed during the course of the study by the CEMVN. The level of ATR for this project will be inter-District/Regional. The Mississippi Valley Division (MVD) will be responsible for verifying that CEMVN's products meet the needs and expectations of the customer, and that competent technical resources are utilized throughout the design and review process. Policy review for this study will be performed at the Headquarters of the United States Army Corps of Engineers (HQUSACE) and will insure that all applicable statutes have been applied with respect to cost sharing, project purpose, and budget criteria. All processes, quality control, quality assurance, and policy review should complement each other, producing a seamless review process, which identifies and resolves technical and policy issues during the course of the study and not during the final study stages.

The QMP has been formulated to provide for a sound ATR process at the project study level 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 review process will insure that a cost effective solution, while maintaining product requirements, is developed. Technical review will also act as a mechanism to avoid start-overs and redesign efforts, and will assure accountability for the technical quality of the product.

The ATR team will communicate through a combination of mail, electronic communication, telephone conversations and teleconferencing. Following the completion of the draft report, an electronic copy of the draft report will be posted at ftp://ftp.usace.army.mil/pub/, and one hard copy of the draft report will be provided to the ATR Team Leader and for each of the ATRT members at least one day before the beginning of the comment period. Dr. Checks will be used to document comments to the draft report; following a kick-off meeting, all comments will be entered into Dr. Checks.

Following the comment period, an in-progress review of PDT and ATR team members will be conducted to review comments and specific issues. After addressing open comments, ATR team members will back check the comments. The ATRT, PDT, and vertical team will conduct an after-action review to discuss continuing issues and concerns.

The ATR team will be assigned by the PCX. Team members will come from outside CEMVN, and would represent selections appropriate to the study. Suggested disciplines for the ATR team would include the following disciplines:

Table 2. ATR Team Member Disciplines

First	Last	Discipline	Phone Number
TBD	TBD	Civil Engineering	TBD
TBD	TBD	Cost Engineering	TBD
TBD	TBD	Design Services	TBD
TBD	TBD	Economics	TBD
TBD	TBD	Environmental	TBD
TBD	TBD	Geotechnical	TBD
TBD	TBD	Hydraulics and Hydrology	TBD
TBD	TBD	Real Estate	TBD
TBD	TBD	Surveys Branch	TBD
TBD	TBD	Waterways	TBD

5. Independent External Peer Review (IEPR)

An IEPR will be conducted through the coordination of the PCX. The project at Calcasieu Lock does not provide a high-risk scenario, as there are no new technologies or novel models being proposed to evaluate the lock. Risk is low, because the analysis associated with the project reflects traditional methods used in engineering, economic, environmental and design reports. The economic interest to the nation, however, is significant, and the construction costs for replacement are high, estimated during reconnaissance phase at a pre-Rita cost of $42,950,000 with annual O&M costs of $2,467,000. Costs updated to reflect current costs are expected to be considerably higher.

The IEPR panel will will be briefed during the alternative formulation briefing and accomplish a review that will cover the entire document, focusing on underlying engineering, economic, and environmental work; it will not focus on one part of the project. IEPR team will review the document once upon the assembly of the draft feasibility study. A scope will be prepared by the PCX outlining IEPR costs and schedule. As with the ATR team, the number of reviewers participating in the IEPR Team will also be determined at a later date by the PCX, but should include members with expertise in the following disciplines:

Table 3. IEPR Team Member Disciplines

First	Last	Discipline	Phone Number
TBD	TBD	Economics	TBD
TBD	TBD	Environmental	TBD
TBD	TBD	Hydraulics and Hydrology	TBD
TBD	TBD	Structures/Waterways	TBD

6. Public Involvement

The public will have several opportunities to comment on the feasibility study through a

public involvement plan implemented through a notice of study initiation, public meetings, and workshops. This will give the Corps the opportunity to exchange information with the public and insure that individuals with an inherent interest in the study are identified and contacted allowing them to voice their views and concerns relative to the study process.

Public meetings and workshops will be conducted to gather and provide feedback from the public, formulate a consensus, and generally keep interested parties informed. The first public meeting is scheduled for March of 2008 to present the tentative alternatives, and a public meeting will be scheduled subsequent to the public release of the draft feasibility report and environmental assessment to present the study conclusions. Throughout the study other public meetings and workshops will be held as necessary.

Although all comments will not be provided to the ATR team, significant and relevant public comments will be addressed prior to ATR and IEPR certification. Any major changes in the study resulting from these comments, and all pertinent comments, will be made available to the PCX.

7. Schedule

To ensure that sufficient review is taking place over the course of the project, review will take place at every major juncture of the plan formulation process. IEPR will be used to evaluate the project concomitant with public review. ATR will review the report that results from the FSM, the AFB, and the Draft Feasibility. The following table provides a relative time frame for the completion of these reviews.

	Task Name	Duration	Start	Finish	Resource Name
FSM		**120 days**	**2/20/09**	**8/6/09**	
	Compile FSM Read Ahead	15 days	2/20/09	3/12/09	PM
	30-day FSM Review	25 days	3/13/09	4/16/09	PM
	FSM ATR	30 days	4/17/09	5/28/09	ATR Team
	Response to FSM ATR	15 days	5/29/09	6/18/09	PM
	FSM Meeting	5 days	6/19/09	6/25/09	PM
	FSM PGM	15 days	6/26/09	7/16/09	MVK & HQ
	Response to FSM PGM	15 days	7/17/09	8/6/09	PM
AFB Process		**145 days**	**9/15/09**	**4/5/10**	
	Compile AFB Read Ahead	15 days	9/15/09	10/5/09	PM
	ATR AFB Read Ahead	30 days	10/6/09	11/16/09	PM
	30-day AFB Read Ahead ATR	25 days	11/17/09	12/21/09	IEPR team
	30-day AFB Read Ahead Review	25 days	1/12/10	2/15/10	MVK & HQ
	AFB	5 days	2/16/10	2/22/10	PM
	PGM	15 days	2/23/10	3/15/10	MVK & HQ
	Responses to AFB PGM	15 days	3/16/10	4/5/10	PM
Draft Feas Rpt & EIS		**354 days**	**12/21/10**	**4/27/12**	
	Draft Report & EIS	22 days	12/21/10	1/19/11	PM
	HQ review of Draft Report	30 days	3/4/11	4/14/11	PM
	Concurrent IEPR & Public Review of Draft GRR/EIS	45 days	5/27/11	7/28/11	IEPR team,Public
	Submit Final GRR/EIS for ATR	1 day	9/9/11	9/9/11	ATR Team
	Perform ATR on Final GRR/EIS	20 days	9/12/11	10/7/11	PM
	Update Final GRR/EIS for CWRB	15 days	10/10/11	10/28/11	PM
	Prepare CWRB Submittal Package (Include Legal Rvw Cert & Draft ROD)	40 days	10/31/11	12/23/11	PM
	Submit CWRB Final GRR/EIS Package to MVD RIT	1 day	12/26/11	12/26/11	HQ
	HQUSACE CWRB Prep/Rvw	23 days	12/27/11	1/26/12	HQ,MVD,PM,Environ,Econ,Eng
	CWRB Meeting	1 day	1/27/12	1/27/12	PM
	Update Final GRR/EIS	11 days	1/30/12	2/13/12	Agencies
	State/Agency Review, EIS Circulation	30 days	2/14/12	3/26/12	PM
	Prepare Chief's Report	24 days	3/27/12	4/27/12	HQ

POINTS OF CONTACT

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:

References:

1 CECW-CP, Memorandum dated 30 March 2007, "Peer Review Process"
2 EC1105-2-410, "Review of Decision Documents", dated 22 August 2008
3 EC1105-2-407, "Planning Models Improvement Program: Model Certification", dated 31 May 2005

The ATR will be managed and conducted by a qualified team outside the New Orleans District. The ATR team will be comprised of senior USACE personnel, Regional Technical Specialists (RTS), or outside experts as appropriate. The leader of the ATR team will be from outside the Mississippi Valley Division.