

BAYOU SORREL LOCK, LOUISIANA FEASIBILITY STUDY

1. QUALITY CONTROL PLAN

The quality control plan (QCP) for the Bayou Sorrel Lock, Louisiana feasibility study provides a technical review mechanism insuring that quality products are developed during the course of the study by the New Orleans District (NOD). Technical review will consist of a single level study review and will be performed at NOD throughout the course of the study. The Mississippi Valley Division (MVD) will be responsible for verifying that NOD's products meet the needs and expectations of the customer, and that competent technical resources are utilized throughout the design and review process. One level of policy review for the Bayou Sorrel Lock, Louisiana 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 QCP has been formulated to provide for a sound technical review process at the NOD level, which 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 startovers and 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 seamless review process performed by NOD (technical review), MVD (quality assurance of technical products), and HQUSACE (policy review). The scope of the Bayou Sorrel Lock, Louisiana quality control plan is based upon applicable guidance from higher authority including the Report of the Task Force on Technical Review, dated December 1994, and CELMV-ET memorandum of 23 September 1995, subject: Lower Mississippi Valley Division, Directorate of Engineering and Technical Services, Quality Control and Quality Assurance Guidance.

1.1. TECHNICAL REVIEW

Based upon cost, technical expertise, and current and projected workload, the technical review for the Bayou Sorrel Lock, Louisiana feasibility study will be conducted by in-house resources. The U. S. Fish and Wildlife Service will also be involved in the review process by participating in Interdisciplinary Planning Team (IPT) meetings. This agency will also be invited to have a representative on the Technical Review Team. In-house technical review is

expected to result in a lower project and review cost when compared to non-Corps contractual services, thereby adding value to the project and yielding the most cost effective method for technical review. In terms of technical expertise, NOD has a vast amount of experience and capability in order to produce a quality product for the Bayou Sorrel Lock, Louisiana feasibility study given the similarity to other inland navigation and flood control projects constructed throughout the New Orleans District.

Based upon the current and projected workload of NOD, the project study plan indicates that the study will be completed in approximately *26 months*. This duration is well within the acceptable time frame for an inland navigation feasibility study.

1.2. TECHNICAL REVIEW TEAM (TRT)

The TRT for both Planning and Engineering Divisions will be responsible for performing an independent technical review of the Bayou Sorrel Lock, Louisiana feasibility study. The TRT will be established at the initial stages of the study and will be maintained to the maximum extent possible during the life of the study. At the initial study stages, the TRT will consist of one or more reviewers from each functional area within each division, and will consist of existing senior staff who perform other technical work but are not involved in the technical products under review. The TRT will be comprised of the same disciplines on the IPT, and will have experience in the type of analyses in which they are responsible for reviewing. Each TRT member will be a peer of the associated IPT member familiar with the procedures required of that technical functional to provide input for this product. If, during the review, it is found that an aspect of the product requires specialized knowledge or experience not possessed by the reviewer, the reviewer shall seek assistance from a qualified source. The TRT will be responsible for verifying; 1) assumptions, 2) methods, procedures, and material used in analyses based on the level of analyses, 3) alternative evaluated is reasonable, 4) appropriateness of data used, and level of data obtained, 5) reasonableness of results, and 6) products meet customer needs and are consistent with law and existing policy. The makeup of the TRT may be modified as the study progresses to match the review requirements. The changes to the TRT may result in out-of-house resources.

1.2.1. TEAM MEMBERS

The Bayou Sorrel Lock, Louisiana inland navigation feasibility study Technical Review Team will be comprised of Planning, Engineering, Operations and Maintenance, Real Estate, and Construction Divisions. Technical Review Members will be from the functional areas within these Divisions to include Plan Formulation Branch, Economics and Social Analysis Branch, and Environmental Analysis Branch, in Planning Division and various design offices in Engineering Division. The members may change as the project progresses and specific project features are better defined. The design offices include Civil Branch, Cost Engineering

Branch, Design Services Branch, General Engineering Branch, Geotechnical Branch, Hydraulics & Hydrologic Branch, and Structures Branch.

Bayou Sorrel Lock, Louisiana Feasibility Study
 Technical Review Team Members

IPT TEAM MEMBER	TECHNICAL REVIEW MEMBER	DISCIPLINE	DIVISION	BRANCH
Darrel Broussard	Troy Constance	Civil Engineer	Planning	Plan Formulation
Mark Haab	Louise Williams	Economics	Planning	Economics & Social Analysis
Richard Boe	Jeness McBride Christopher Brown	Environmentalist HTRW	Planning	Environmental Analysis
Ed Lyons	Ken Ashworth	Cultural Resource Specialist	Planning	Environmental Analysis
Steve Finnegan	Ted Hokkanen	Recreational Resource Specialist	Planning	Environmental Analysis
Don Alette	Nancy Powell	Hyd. & Hydro	Engineering	Hyd & Hydro
Chris Alfonso	Wayne Weiser	Civil Engineer	Engineering	Civil
Fred Young	Mark Gonski	Structural	Engineering	Structures
Frank Vojkovich	Kim Tullier	Geotechnical	Engineering	Geotechnical
Richard Butler	Dave Wurtzel	Civil Engineer	Engineering	Design Services/ Relocations

John Bivona John Petitbon	Darrell Normand	Cost Engineer	Engineering	Cost Engineering
Denis Strecker	Mike Sanchez	Mechanical	Engineering	General Engineering
Dan Bradley	Jabeen Pasha	Electrical	Engineering	General Engineering
Mike Palmieri	Michell Marceaux	Realty Specialist	Real Estate	Planning & Control
Jim Scott		Civil Engineer	Construction	Contract Administration
	Mike Park	Civil Engineer	Operations	Technical Support

1.3. TECHNICAL REVIEW MEETINGS AND CRITICAL CHECKPOINTS

The quality control process recognizes that the appropriate place to perform one-on-one verification for both Planning Division and Engineering Division products will vary among the functional areas. However, the verifications will occur prior to the release of data and/or final products to another office/division, but may include reviewers and IPT members from other functional areas. The one-on-one verifications for both divisions will occur numerous times throughout the current *26-month* schedule. Each one-on-one verification meeting will be documented and become part of the quality control records used in the quality assurance process by MVD.

In addition to the one-on-one verification process, there are also points within the study process where it is appropriate for the TRT and IPT to perform the verification process as a team. This feature of the quality control process allows the flexibility to optimize the one-on-one verification process within the functional area while maintaining the team concept during the Technical Review Meetings. Each meeting will be documented and become part of the quality control records used in the quality assurance process by MVD. These points in the study process **will** occur during: scoping and plan formulation, plan selection, report review, and the preparation of the project management plan.

1.4. QUALITY CONTROL RECORDS

Quality control records for both Planning and Engineering Division products will be maintained in a technical review package prepared by the IPT leader and included in the Bayou Sorrel Lock, Louisiana feasibility report. The package will consist of review comments, and a certification checklist. The review comments will summarize the major issues/comments from the independent technical review along with the response or resolution to each comment. The technical review checklist will also be included within the report as a means of documenting the independent technical review. The checklists will assure that the major elements of the quality control plan have been followed. Planning Division reviewers will sign the checklist, certifying that, for their particular subject area, the document conforms to pertinent regulations, guidance, and sound professional practices. Prior to the submittal of the draft report to HQUSACE the checklist will be completed by the Planning Division functional chief, reviewed by the Chief of Planning Division, and signed by the District Commander as part of the required report documentation. Engineering Division's quality control records, comments and resolutions, will accompany the design document. The design checklists will serve as a tool for the TRT and will become part of the district's files.

MEMORANDUM FOR RECORD - TECHNICAL REVIEW COMPLETE

MEMORANDUM FOR RECORD
THRU Chief, Engineering Division

SUBJECT: Quality Control Review, Bayou Sorrel Lock, Louisiana Feasibility Study

In accordance with the District's Quality Control Plan, the Quality Control Review for the subject project has been completed and all comments are resolved. The following review team members certify the completion of the review:

Name

Discipline

Initials