DEPARTMENT OF THE ARMY
MISSISSIPPI VALLEY DIVISION, CORPS OF ENGINEERS
P.O. BOX 80
VICKSBURG, MISSISSIPPI 39181-0080

REPLY TO
ATTENTION OF:

25 MAR 2015

CEMVD-PD-SP

MEMORANDUM FOR Commander, St. Louis District

SUBJECT: Review Plan Approval for Cape Girardeau Reconstruction Project Review Plan

1. References:

a. Memorandum, CEMVS-PM-N, 6 March 2015, subject: Cape Girardeau Review Plan Documentation (encl 1).

b. Memorandum, CEMVD-RB-T, 13 March 2015, subject: Review Plan for Cape Girardeau Reconstruction Project (encl 2).

c. Memorandum, CEIWR-RMC, 6 March 2015, subject: Rationale to Not Conduct a Type II IEPR (SAR) for the Cape Girardeau Flood Protection System Reconstruction Project, Cape Girardeau, Missouri (encl 3).

d. EC 1165-2-214, 15 December 2012, subject: Civil Works Review Policy.

2. The enclosed Review Plan (RP) for the Cape Girardeau Reconstruction Project has been prepared in accordance with EC 1165-2-214. The RP has been coordinated with the Upper District Support Team, the Business Technical Division and the Risk Management Center, who concurred with the plan in references 1.b. and 1.c.

3. MVD hereby approves this RP, which is subject to change as circumstances require, consistent with study development under the Project Management Business Process. Subsequent revisions to this RP or its execution will require new written approval from this office. Non-substantive changes to this RP do not require further approval. The District should post the approved RP to its web site.

CEMVD-PD-SP
SUBJECT: Review Plan Approval for Cape Girardeau Reconstruction Project Review Plan

4. The MVD point of contact is [redacted], CEMVD-PD-SP, [redacted].

3 Encls

[redacted]
Acting Chief, Programs Directorate

DEPARTMENT OF THE ARMY
ST. LOUIS DISTRICT, CORPS OF ENGINEERS
1222 SPRUCE STREET
ST. LOUIS MO 63103-2833

MAR 0 6 2015

CEMVS-PM-N

MEMORANDUM FOR Commander, Mississippi Valley Division (CEMVD-PD-SP/Mr. Philip Hollis, Sr.)

SUBJECT: Cape Girardeau Review Plan Documentation

1. References:

a. A. EC 1165-2-309, 31 JAN 10, Civil Works Review Policy

b. Memorandum, CEMVD-PD, 11 OCT 12, USACE Civil Works Review Process

2. The Cape Girardeau Review Plan (Encl 1) is submitted for your approval. Also enclosed, the CEIWR-RMC Concurrence Memo (Encl 2), Review Plan Checklist for Implementation Documents (Encl 3).

3. The point of contact for this is [redacted] Project Manager, at [redacted]

[redacted]

Encls

COL, EN
Commanding

Encl 1

REVIEW PLAN

Cape Girardeau Flood Protection System Reconstruction

Cape Girardeau, Missouri

St. Louis District

MSC Approval Date: *Pending*
Last Revision Date: *05 March 2015*

US Army Corps
of Engineers ®

REVIEW PLAN

Cape Girardeau, Missouri

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1. PURPOSE AND REQUIREMENTS

a. **Purpose.** This Review Plan is intended to ensure a quality-engineering project is developed by the Corps of Engineers. This Review Plan has been developed for The Cape Girardeau Flood Protection System Reconstruction project. This Review Plan was prepared in accordance with EC 1165-2-214, "Civil Works Review Policy". The Review Plan shall layout a value added process that assures the correctness of the information shown. It is imperative that the vertical teaming efforts are proactive and well coordinated to assure collaboration of the report findings, conclusions, and recommendations, and that there is consensus at all levels of the organization with the recommended path forward. This Review Plan describes the scope of review for the current phase of work, and is included in the Project Management Plan (P2 #075574). All appropriate levels of review (DQC, ATR, IEPR, BCOES, and Policy and Legal Review) will be included in this Review Plan as appropriate, and any levels not included will require documentation in the Review Plan of the risk-informed decision not to undertake that level of review. The RP identifies the most important skill sets needed in the reviews and the objective of the review and the specific advice sought, thus setting the appropriate scale and scope of review for the individual project. This Review Plan should be provided to PDT, DQC, ATR and IEPR Teams.

b. **References**

(1) Engineering Circular (EC) 1165-2-214, Civil Works Review, 15 Dec 2012
(2) Engineering Regulation (ER) 1110-1-12, Quality Management, 31 Mar 2011
(3) Cape Girardeau District, Missouri, Project Management Plan (P2 #075574)

c. **Requirements.** This review plan was developed in accordance with EC 1165-2-214, 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). It 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 work products. The EC outlines three levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), and Independent External Peer Review (IEPR).

(1) District Quality Control (DQC). DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). Basic quality control tools include a Quality Management Plan providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc. It is managed in the home district. Quality checks may be performed by staff responsible for the work, such as supervisors, work leaders, team leaders, designated individuals from the senior staff, or other qualified personnel. However, they should not be performed by the same people who performed the original work, including managing/reviewing the work in the case of contracted efforts. Additionally, the PDT is responsible for a complete reading of any reports and accompanying appendices prepared by or for the PDT to assure the overall coherence and integrity of the report, technical appendices, and the recommendations before approval by the District Commander. The Major Subordinate Command (MSC)/District Quality Management Plans address the conduct and documentation of this fundamental level of review.

(2) Agency Technical Review (ATR). ATR is an in-depth review, managed within USACE, and conducted by a qualified team outside of the home district that is not involved in the day-today production of the project/product. The purpose of this review is to ensure the proper application of clearly established criteria, regulations, laws, codes, principles and professional practices. The ATR team reviews the various work products and assure that all the parts fit together in a coherent whole. ATR teams will be comprised of senior USACE personnel, preferably recognized subject matter experts with the appropriate technical expertise such as regional technical specialists (RTS), and may be supplemented by outside experts as appropriate. To assure independence, the leader of the ATR team should be from outside the home MSC.

(3) Independent External Peer Review (IEPR). IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. For clarity, IEPR is divided into two types, Type 1 is generally for decision documents and Type II is generally for implementation documents. A Type II IEPR (SAR) shall be conducted on design and construction activities for hurricane and storm risk management and flood risk management projects, as well as other projects where potential hazards pose a significant threat to human life. This applies to new projects and to the major repair, rehabilitation, replacement, or modification of existing facilities. External panels will review the design and construction activities prior to initiation of physical construction and periodically thereafter until construction activities are completed. The review shall be on a regular schedule sufficient to inform the Chief of Engineers on the adequacy, appropriateness, and acceptability of the design and construction activities for the purpose of assuring that good science, sound engineering, and public health, safety, and welfare are the most important factors that determine a project's fate.

2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The RMO is responsible for managing the overall peer review effort described in this Review Plan. The RMO for the peer review effort described in this Review Plan is the Missippi Valley Division (MVD).

3. STUDY INFORMATION

Project Description. The Cape Girardeau, Missouri, Flood Protection Project was originally authorized by the Flood Control Act of 1950 and is located on the right descending bank of the Mississippi River flood plain between river miles 51.6 and 52.8 above the confluence of the Ohio River with the Mississippi River. The area protected by the Cape Girardeau Flood Protection Project lies within the corporate limits of the City of Cape Girardeau, Missouri.

Figure 1 Location map

Figure 2 Project Overview Northern Reach

The Cape Girardeau Project was originally divided into four reaches. However, only Reach 2, between river miles 51.6 and 52.8, was constructed. Construction began in February 1956 and completed in June 1964. The project was formally transferred to the local interests in October 1964. Reaches 1, 3, and 4 were de-authorized on 3 October 1978, in accordance with Section 12 of the Water Resources Development Act of 1974 (P.L. 93-251), as amended. The Cape Girardeau Flood Protection Project was

constructed at a total cost of [redacted] (which included [redacted] for advanced design on Reaches 1, 3, and 4 and [redacted] in non-Federal contributions).

The area protected by the Cape Girardeau Project lies within the corporate limits of the City of Cape Girardeau, Missouri. The current line of protection extends eastwardly along Sloan Creek on the north to the right bank of the Mississippi River, continuing downstream along the river to high ground.

Flood stage at the Cape Girardeau gage is 32 feet. The design water surface elevation for the Cape Girardeau Floodwall is 354.87 feet N.G.V.D., equivalent to a stage of 50.22 feet at the Cape Girardeau gage. The net levee grade of 357.87 feet includes 3 feet of freeboard above the design elevation. The Cape Girardeau Floodwall design stage provides protection for greater than the 500-year flood based on results from the 2003 Upper Mississippi River System Flood Flow Frequency Study. The largest flood on record at Cape Girardeau was in 1993 when the stage reached 48.0 feet on August 8. Other large floods occurred in 1995 (46.67 feet), 2011 (46.09 feet), 2002 (45.60 feet), 1973 (45.60 feet), 1983 (44.90), 1979 (44.40 feet), and 1982 (43.50 feet).

The April 2002 periodic inspection report for the Cape Girardeau project identified several major concerns. The 2004 Energy and Water Appropriations Act provided authority and funding to study possible reconstruction of the project. In 2007, an Engineering Documentation Report (EDR) was approved which described the problems, investigations, findings, alternatives and recommendations for reconstruction in the Cape Girardeau Flood Protection System. Due to the authorizing language (provided in Section (2) of this report), the EDR's recommendations were based on the technical feasibility and cost effectiveness of the evaluated alternatives and did not contain an economic analysis.

The goal of the proposed project is to restore the original project to a serviceable working level. The following paragraphs briefly describe the EDR's recommended plan.

Floodwall

- All joints which have experienced differential movement of ½" were recommended for installation of 1" expansion joints through the wall stems and addition of a supplemental water stop on the riverside of the existing floodwall.
- Monoliths 16 and 17 needed to be raised to ensure 500-year protection plus 3 feet of freeboard.
- The voids in the vicinity of Monolith 14 will be addressed by deep soil mixing, on the riverside of the floodwall, from Monoliths 2 through 16.
- Soil under the railroad tracks in the vicinity of the north closure structure shows evidence of failure due to the underseepage problems. An area of soil 100' x 34' x 5' deep under the ballast will be removed and replaced with compacted material.
- Areas of all joints above grade not rehabilitated for thermal expansion should have existing sealant removed, be saw cut to proper width and depth if needed, cleaned and a backer rod and joint sealant material be installed.

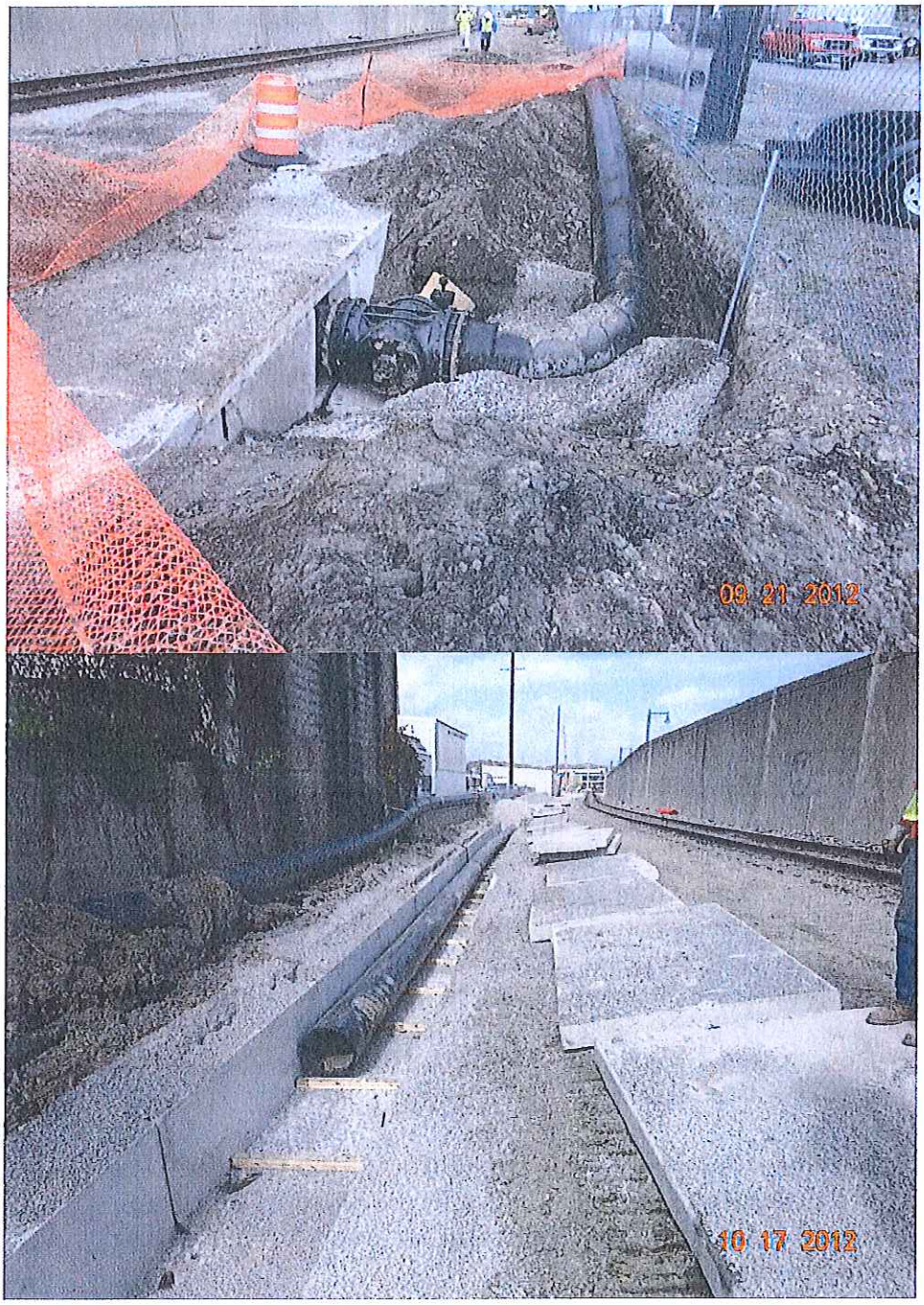
Retaining Wall

Stabilization of the retaining wall was to be accomplished by placing a rock berm against the retaining wall. The berm would be approximately 1,607 feet long. Provision would be made at the Merriwether tunnel outlet to extend the outlet by placing precast concrete box culvert sections on a reinforced tremie concrete foundation and then topped with stone.

Toe Drain

In order to ensure the performance of the subdrain system, the entire subdrain system would be replaced. All portions of the Toe Drain have been replaced under previous contracts with exception of the remaining 660' which is to be addressed by contracts addressed under this review plan.

Figure #3 Force Main Relocation during Toe Drain Replacement



Pump Stations

- Structures
  - Replace the roofs on the Merriwether Street and Mill Street pump stations
  - At both stations and gatewells, embedded steel items located in wet area should be cleaned and painted.
  - Deteriorated trash rack guide angles, stoplog guide angles and ladders should be removed and replaced using galvanized steel for guide angle items and FRP for ladders.
- Pumps and Motors
  - Pump No. 5 stormwater pump and motor at Merriwether Pump Station will be rehabilitated. The submersible sewage pumps at Merriweather Pump Station will be completely rehabilitated. Both stormwater pumps and motors at Mill Street Pump Station will be rehabilitated. Based on engineering and cost considerations, the sewage pump and sump dewatering pump at the Mill Street Pump Station will be replaced with submersible pumps.
- Electrical Equipment
  - Reconstruct by replacement at both pump stations.
- Merriwether Tunnel
  - Grout the voids in the transition area from the 78" RCP to the 66" arched brick sewer using a cement based grout.
- Sluice Gates and Flap Gates
  - Rehabilitation.

Closure Structures

Replace the deteriorated seals for both railroad closure gates and the road closure gates at the Broadway and Themis Street closures.

Products to be reviewed. The reconstruction project is currently approximately 80% physically complete. All of the above items of construction have been completed with the exception of 1) placing approximately 80 LF trench with flowable fill and earthen backfill riverside of the flood wall near the North RR Closure Structure., 2) replacement of final 660 LF of the 2,100 LF toe drain system landside of the floodwall , 3) placement of approximately final 120 LF of the 1,600 LF rock berm system riverside of the floodwall. 4) extending the Merriwether Pump Station box culvert outlet (to accommodate the completion of item 3) above). The primary contracts associated with completion of this project will be in two separate forms. The first will be for the 660' of toe drain replacement. The second will be for the rock berm stabilization with likely task orders to address the remaining features of work. This review plan applies to the plans and specifications, design computations and construction activities for these contracts.

General Site Location and Description. The area protected by the Cape Girardeau Project lies within the corporate limits of the City of Cape Girardeau, Missouri. The current line of protection extends eastwardly along Sloan Creek on the north to the right bank of the Mississippi River, continuing downstream along the river to high ground.

4. **Factors Affecting the Scope and Level of Review.** This project is a reconstruction project and the highest priority flood risk portions of the reconstruction project have already been completed,

resulting in the system being able to sustain the project design flood event. None of the uncompleted reconstruction elements will result in reduced levels of flood protection for the Drainage and Levee District. The remaining uncompleted construction items can be viewed upon as the remaining punchlist items in completing the authorized reconstruction project and do not place human life or property (vehicles, buildings, industrial equipment, livestock and agricultural production) at risk.

The Reconstruction Project has been ongoing since 2007. In the summer of 2013 the project was suspended due to 902 limitations and was pending Congressional limit increase until the passage of WRRDA 2014 in March 2014. During this period since the project is not subject to normal budgeting opportunities, USACE postured the overall project in a condition in which it would provide highest extent of protection possible to the local community for the foreseeable future. The toe drain and rock berm are not integral to the flood wall infrastructure, work on these features during a flood event does not present an increased threat of failure for the system. The remaining work on this project drain does not constitute a life, safety, or hazard condition to the community or the project there is not expected to be any public dispute.

5. IN-KIND CONTRIBUTIONS

Design and Construction costs are 100% Federal; the sponsor provides lands and relocations. There are no in-kind contributions anticipated. Therefore the funding stream is uncertain, this review plan will be updated and revised as necessary for the remaining project features, as we receive additional funding in the future years.

6. DISTRICT QUALITY CONTROL (DQC)

DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). The home district shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the home MSC. DQC efforts will include the necessary expertise to address compliance with published Corps policy. Reviews under this heading may include over the shoulder peer reviews; and Bid-ability, Constructability, Operability, and Environmental (BCOE) Reviews. Key products for review include plans, specifications, design documentation reports, and cost estimate for the final design review. DQC reviews are documented in Dr.Checks. BCOE Certification is signed off by the Chief's of Engineering & Construction, Environmental and Operations divisions within MVS.

7. AGENCY TECHNICAL REVIEW (ATR)

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 document explains the analyses and results in a reasonably clear manner for the public and decision makers. ATR is managed within USACE by the designated RMO and is conducted by a qualified team from outside the home district that is not involved in the day-to-day production of the project/product. No site visit is planned as of this time but may considered if the team determines it preferable to fully understand scope and scale of the project.

a. **Products to Undergo ATR.** All plans and specifications completed subsequent to approval of this review plan will undergo ATR. All models, input, spreadsheets, calculations, and a supporting DDR

(if applicable) will be included in the review documentation. A complete documentation of DQC including comments, evaluations, and backchecks will be part of the review documentation. The anticipated costs for the scope of the remaining construction features are in the range of $5-10M. USACE expects to award two separate construction contracts to complete the work. One for the Toe Drain replacement and the other for the Rock Berm stabilization. The remainder of the project will be handled with task orders appended to these contracts. The ATR activity will include but is not limited to the inclusion of a review of design computations for the project.

b. **Required ATR Team Expertise.** ATR expertise will vary based on the particular needs of each project feature, but will be comprised of senior USACE personnel (Regional Technical Specialists (RTS), etc) and may be supplemented by outside experts as appropriate. The disciplines represented on the ATR team will reflect the significant disciplines involved in the planning, engineering, design and construction effort. These disciplines include civil, geotechnical, structural, hydraulics and hydrology, electrical, mechanical and construction. The chief criterion for being a member of the ATR team is knowledge of the technical discipline and relevant experience. See attachment #2.

c. **Documentation of ATR.** DrChecks review software will be used to document all ATR comments, responses and associated resolutions accomplished throughout the review process. Comments should be limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:

(1) The review concern – identify the product's information deficiency or incorrect application of policy, guidance, or procedures;
(2) The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not be properly followed;
(3) The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost), effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and
(4) The probable specific action needed to resolve the concern – identify the action(s) that the reporting officers must take to resolve the concern.

In some situations, especially addressing incomplete or unclear information, comments may seek clarification in order to then assess whether further specific concerns may exist.

The ATR documentation in DrChecks will include the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes the district, RMO, MSC, and HQUSACE), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either ER 1110-1-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks with a notation that the concern has been elevated to the vertical team for resolution.

At the conclusion of each ATR effort, the ATR team will prepare a Review Report summarizing the review. Review Reports will be considered an integral part of the ATR documentation and shall:

- Identify the document(s) reviewed and the purpose of the review;

- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions;
- Identify and summarize each unresolved issue (if any); and
- Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

ATR may be certified when all ATR concerns are either resolved or referred to the vertical team for resolution and the ATR documentation is complete. The ATR Lead will prepare a Statement of Completion indicating that the issues raised by the ATR team have been resolved (or elevated to the vertical team). A Statement ofCompletion should be based on work reviewed to date. The Final ATR report will be provided to the Project delivery Team as well as the IEPR Team reviewers as necessary.

8. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

a. The District Chief of Engineering, as the Engineer in Responsible Charge, assesses that A Type II IEPR is not required because the remaining construction items on the project do not have a high potiential hazard posing a significant threat to human life (public safety). The remaining items are:

1. Placing approximately 80 LF trench with flowable fill and earthen backfill riverside of the flood wall near the North RR Closure Structure.
2. Replacement of the final 660 LF of the 2100 lf toe drain system landside of the floodwall.
3. Placement of approximately final 120 LF of the 1,600 LF rock berm system riverside of the floodwall.
4. Extending the Merriwether Pump Station box culvert outlet (to accommodate the completion of item 3 above).

The above reconstruction items do not pose any additional risk to the public safety during the construction activities. The work does not require temporary loss of the level of protection, coffer damming; and/or additional redundancy, resiliency and or robustness and does not pose a significant threat to human life.

b. General. Type I and Type II IEPRs are conducted in accordance with the guidance promulgated in EC 1165-2-214. Type I IEPR reviews are managed outside the USACE and are conducted on project studies. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans, methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and biological opinions of the project study. Type I IEPR will cover the entire decision document or action and will address all underlying engineering, economics, and environmental work, not just one aspect of the study. For decision documents where a Type II IEPR (Safety Assurance Review) is anticipated during project implementation, safety assurance shall also be addressed during the Type I IEPR per EC 1165-2-214. Type II IEPR, or Safety Assurance Review (SAR), are managed outside the USACE and are 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. Type II IEPR panels will conduct reviews of the design and construction activities prior to initiation of physical construction and, until construction

activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare.

c. **Decision on IEPR.** The current Review Plan addresses the design and construction activities for the Cape Girardeau Project. The Deficiency Correction Report Including Environmental Assessment was completed July 2003. All of these documents were prepared and approved before EC 1105-2-410, Review of Decision Documents dated 22 August 2008 and EC 1165-2-214 Civil Works Review Policy dated 31 January 2012, took effect. If at a later date it becomes necessary to conduct planning activities for this project it will be necessary to modify and update the current Review Plan to accommodate the policy compliance requirements identified in EC 1165-2-214 for a Type I IEPR.

In accordance with EC 1165-2-214 a Type II IEPR (SAR) shall be conducted on design and construction activities for flood risk management projects. This applies to new projects and to the major repair, rehabilitation, replacement, or modification of existing facilities.

The District Chief of Engineering, as the Engineer in Responsible Charge, assesses that A Type II IEPR is not required for this project because the remaining construction items on the project do to not have a high potential hazard posing a significant threat to human life (public safety). The remaining items are:

1) Placing approximately 80 LF trench with flowable fill and earthen backfill riverside of the flood wall near the North RR Closure Structure.
2) Replacement of final 660 LF of the 2,100 LF toe drain system landside of the floodwall.
3) Placement of approximately final 120 LF of the 1,600 LF rock berm system riverside of the floodwall.
4) Extending the Merriwether Pump Station box culvert outlet (to accommodate the completion of item 3) above).

The above reconstruction items do not pose any additional risk to the public safety during the construction activities. The work does not require temporary loss of level of protection, cofferdamming; and/or additional redundancy, resiliency and or robustness and does not pose a siginificant threat to human life.

d. **Products to Undergo Type II IEPR.** (Not applicable to this REVIEW PLAN see above) As the District Chief of Engineering, the Engineer in responsible Charge, will determine which contracts pose a significant threat to the flood protection system and which ones will undergo a Type II IEPR. However, all construction contracts will be subject to Type II IEPR. Under this provision, an external panels will conduct reviews of the design and construction activities prior to the initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule, and before substantial completion of construction activities. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health, safety, and welfare. The team shall assess conditions via a site visit as necessary.

e. **Required Type II IEPR Panel Expertise.** (Not applicable to this REVIEW PLAN see above) The IEPR team will vary based on size and complexity of the product being review, but will consist of no more than six members including the IEPR Leader. The IEPR team will be coordinated through the Risk Management Center (RMC). External panels will conduct reviews of the design and construction

activities prior to the initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health, safety, and welfare. The Review Management Office (RMO) for Type II IEPR reviews is the RMC. Panel members will be selected using the National Academies of Science (NAS) policy for selecting reviewers. Type II IEPR is not exempted by statute from the Federal Advisory Committee Act (FACA).

The IEPR will be performed by an AE firm, using an RMC Indefinite Delivery Indefinite Quantity (IDIQ) Contract. The AE firm will provide the USACE with the final independent external expert reviewer list, including their credentials. Expert reviewers shall have experience in design and construction of projects similar in scope to the project. Expert reviewers shall be registered professional engineers in the United States, or similarly credited in their home country.

The Type II IEPR panel members will be comprised of individuals meet the National Academy of Sciences guidelines for independence, and will be chosen by an outside organization. The following types of expertise will be represented on the Type II IEPR team:

(1) IEPR team leader. The IEPR team leader shall hold a professional license in structural or civil engineering with a MS degree or higher civil or structural engineering. The IEPR leader shall have a minimum of 20 years of design experience and experience with multi-million dollar, flood risk management projects. The team leader shall be a recognized leader with good communication skills to lead a diverse review team comprised of individuals located across the nation.

(2) Hydraulics. The reviewer for hydraulics shall be a registered professional engineer with a minimum of a MS degree or higher in engineering science. The reviewer shall have a minimum of 20 years experience in hydrologic analysis and design of hydraulic structures as it relates to riverine flood risk management projects. Reviewer should have experience in the analysis and design involving interior drainage and riverine models using HEC-RAS and hydrology models using HEC-HMS. This member should also be knowledgeable in coincidence of frequency and the application of USACE risk and uncertainty analyses on flood risk management projects. Reviewer should be experienced with similar projects in an urban setting and participated in review of riverine flood risk management projects.

(3) Structural. The reviewer for structural features shall be a registered professional structural engineer with a MS degree or higher in civil or structural engineering. The reviewer shall have a minimum of 20 years experience in the design, layout, and construction of large urban flood risk management projects. Reviewer should be familiar with the design and construction of tall (15 feet high) flood walls, removable flood walls, closure structures, interior drainage facilities, concrete placement, and relocation of underground utilities. The reviewer should have experience with static and seismic design per industry code standards and USACE design regulations for Civil Works projects including soil-structure interaction evaluation and design. The reviewer shall also have a working knowledge of the software Mathcad 15, CWALSHT - USACE sheet pile design, CPGA - USACE pile group analysis, CFRAME - USACE frame analysis, CTWALL – USACE cantilever wall analysis, STAAD Pro- Finite element analysis, RISA-3D- Finite element analysis, and Microsoft Excel.

(4) Civil. The reviewer for civil features shall be a registered professional engineer with a minimum MS degree or higher in civil or construction engineering. They shall have a minimum of 20 years experience in the design, layout, and construction of a large urban flood risk management projects to include knowledge regarding levees, interior drainage

facilities, earthwork, concrete placement, design of access roads, and relocation of underground utilities.

(5) Mechanical. The reviewer for mechanical features shall be a registered professional engineer with a BS degree or higher in mechanical engineering. Reviewer shall have a minimum of 20 years in mechanical design of pump stations. The Reviewer must be familiar with USACE regulations and standards

(6) Geotechnical. The reviewer for geotechnical features shall be a registered professional engineer with a minimum BS degree or higher in civil or geotechnical engineering. Reviewer shall have a minimum of 20 years experience in subsurface investigations, floodwall and levee design, seepage and slope stability evaluations, erosion protection design, and construction and earthwork construction. The reviewer must be familiar with USACE regulations and standards.

(7) Electrical. The reviewer for electrical features shall be a registered professional engineer with a BS degree or higher in electrical engineering. Reviewer shall have a minimum of 20 years in electrical design of pump stations. The reviewer must be familiar with USACE regulations and standards.

f. **Documentation of Type II IEPR. .** (Not applicable to this REVIEW PLAN see above) Dr Checks review software will be used to document IEPR comments and aid in the preparation of the Review Report. Comments should address adequacy and acceptability of the economic, engineering and environmental methods, models, and analyses used. IEPR comments should general include the same four key parts as described for ATR comments in Section 6. The Contractor will be responsible for compiling and entering comments into Dr Checks. The IEPR team will prepare a Review Report that will accompany the publication of the final report for the project and shall:

(i) Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;

(ii) Include the charge to the reviewers prepared by the Contractor;

(iii) Describe the nature of their review and their findings and conclusions; and

(iv) Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views. This report and all relevant comments will be provided to the PDT for review.

(v) Results of the IEPR will be posted at : http://www.mvs.usace.army.mil/Missions/ProgramsProjectManagement/PlansReports.aspx

9. REVIEW SCHEDULES AND COSTS

a. **ATR Schedule and Cost.** The estimated cost per ATR is [redacted] The ATR will occur during key stages in the P&S for each feature completed following this review plan. The next scheduled milestone for ATR is the Toe Drain Replacement P&S, which is scheduled to begin 4th Quarter FY15. Since this is a small project, the comment resolution meeting will be conducted via teleconference. Remaining work will be completed as funding becomes available.

Type II IEPR Schedule and Cost. . (Not applicable to this REVIEW PLAN see above) Typically the IEPR costs are paid from Project funds, however, there will not be a Type II IEPR (SAR) for the remaining unconstructed items for this project

10. PUBLIC PARTICIPATION

As required by EC 1165-2-214, the approved Review Plan will be posted on the District public website for public comment. Information will be conveyed to the public through the use of press releases and media interviews as necessary and through the use of posting information to the St. Louis District's website. There is no formal public review for the DDR, plans and specifications and construction phases. However, the cost share partner, Cape Girardeau District, will have opportunities to review the DDR, plans and specifications and construction phases as part of the PDT. The review Plan will be posted for public review at:
http://www.mvs.usace.army.mil/Missions/ProgramsProjectManagement/PlansReports.aspx

11. REVIEW PLAN APPROVAL AND UPDATES

The Mississippi Valley Division Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input (involving district, MSC, RMO, and HQUSACE members) as to the appropriate scope and level of review for the project. Like the PMP, 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. Minor changes to the review plan since the last MSC Commander approval are documented in Attachment 3. Significant changes to the Review Plan (such as changes to the scope and/or level of review) should 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, should be posted on the Home District's webpage. The latest Review Plan should also be provided to the RMO and home MSC and is available at:
http://www.mvs.usace.army.mil/Missions/ProgramsProjectManagement/PlansReports.aspx

12. REVIEW PLAN POINTS OF CONTACT

Public questions and/or comments on this review plan can be directed to the following points of contact:

- [redacted] *St. Louis District Project Manager, 314.331.8780*
- [redacted] *Mississippi Division Program Manager, 601.634.5293*
- [redacted] *Risk Management Center, 304.399.5217*

ATTACHMENT 1: TEAM ROSTERS

Project Delivery Team

A complete listing of the project delivery team can be found in the Project Management Plan

Vertical Team

The Vertical Team consists of members of the HQUSACE and CEMVD Offices. The Vertical Team plays a key role in facilitating execution of the project in accordance with the PMP. The Vertical Team is responsible for providing the PDT with Issue Resolution support and guidance as required. The Vertical Team will remain engaged seamlessly throughout the project via monthly telecoms as required and will attend In Progress Reviews and other key decision briefings. The CEMVD District Liaison is the District PM's primary Point of Contact on the Vertical Team.

DQC Roster

Team Member	Area of Expertise	Contact Information
[redacted]	Civil Engineering	[redacted]
	Geotechnical Engineering	
	Mechanical Engineering	
	Electrical Engineering	
	H&H Engineering	
	Structural Engineering	

Attachment 2: Qualifications

ATR Roster (ATR Roster will be determined by size and complexity of product)

Recommended Agency Technical Review Panel		
NAME	DISCIPLINE	Education & Experience
[redacted] SWF (ATRT lead)	ATR Team Leader/Civil, P.E.	BS in Civil Engineering, 15+ years experience in the civil design and construction of levees
[redacted] MVM	Geotechnical, P.E.	BS in Civil/ Geotechnical Engineering, 10+ years experience in the geotechnical design and construction of levees
[redacted] SWT	Hydrology and Hydraulics, P.E.	BS in Civil/Hydraulic Engineering, 10+ years experience in the hydrology and hydraulic design
[redacted] MVM	Mechanical, P.E.	BS in Mechanical Engineering, 10+ years experience in mechanical design
[redacted] MVR	Electrical, P.E.	BS in Civil/Hydraulic Engineering, 10+ years experience in electrical design
[redacted] SWF	Structural Engineer	BS in Structural Engineering, 10+ years experience in the structural design and construction of levee enclosure structures
[redacted] MVM	Civil Design Engineer	The reviewer for civil features knowledge regarding levees, interior drainage facilities, earthwork, concrete placement, design of access roads, and relocation of underground utilities. The reviewer must be familiar with USACE regulations and standards.

ATTACHMENT 3: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECISION DOCUMENTS

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the *<type of product>* for *<project name and location>*. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-214. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrChecks[sm].

Name
ATR Team Leader
Office Symbol/Company

Date

[redacted]
Project Manager
CEMVS-PM-N

Date

[redacted]
Director, Risk Management Center
CEIWR-RMC

Date

SAMPLE CERTIFICATION OF AGENCY TECHNICAL REVIEW

Subject: Agency Technical Review (ATR) of the DRAFT LIMITED REEVALUATION REPORT, AND ENVIRONMENTAL ASSESSMENT, DESIGN DEFICIENCY CORRECTIONS, ALTON TO GALE ORGANIZED LEVEE DISTRICTS, ILLINOIS AND MISSOURI, December 2015, St. Louis District.

Significant concerns and the explanation of the resolution of agency technical review comments for the subject ATR are as follows:

- None

References.

a. ATR guidance: EC 1165-2-214, 15 December 2012, Water Resources Policies and Authorities, CIVIL WORKS REVIEW.
b. The Review Management Organization for this review was the Flood Risk Management Planning Center of Expertise (FRM-PCX), Eric Thaut.
c. The ProjnetTM DrChecks Project and Review titles are: Project: Levee Systems and Review: Alton to Gale ATR Dec 2014.

d. The ATR review report is titled: Review Management Organization, Flood Risk Management PCX, RESOURCE MANAGEMENT ORGANIZATION'S, ATR REVIEW REPORT, FEBRUARY 2015, DRAFT LIMITED REEVALUATION REPORT, AND ENVIRONMENTAL ASSESSMENT, DESIGN DEFICIENCY CORRECTIONS, ALTON TO GALE ORGANIZED LEVEE DISTRICTS, ILLINOIS AND MISSOURI, St. Louis District, December 2015, and contains the ATR Completion Statement.

I certify that all comments resulting from ATR of the subject report have been closed to the satisfaction of the agency technical review team and the project delivery team.

[redacted] Date

Chief, Engineering and Construction Division
CEMVS-EC

[redacted] Date

Chief, Regional Planning and
Environment Division North
CEMVS-PD

ATTACHMENT 4: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number

ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

Term	Definition	Term	Definition
AFB	Alternative Formulation Briefing	NED	National Economic Development
ASA(CW)	Assistant Secretary of the Army for Civil Works	NER	National Ecosystem Restoration
ATR	Agency Technical Review	NEPA	National Environmental Policy Act
CSDR	Coastal Storm Damage Reduction	O&M	Operation and maintenance
DPR	Detailed Project Report	OMB	Office and Management and Budget
DQC	District Quality Control/Quality Assurance	OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
DX	Directory of Expertise	OEO	Outside Eligible Organization
EA	Environmental Assessment	OSE	Other Social Effects
EC	Engineer Circular	PCX	Planning Center of Expertise
EIS	Environmental Impact Statement	PDT	Project Delivery Team
EO	Executive Order	PAC	Post Authorization Change
ER	Ecosystem Restoration	PMP	Project Management Plan
FDR	Flood Damage Reduction	PL	Public Law
FEMA	Federal Emergency Management Agency	QMP	Quality Management Plan
FRM	Flood Risk Management	QA	Quality Assurance
FSM	Feasibility Scoping Meeting	QC	Quality Control
GRR	General Reevaluation Report	RED	Regional Economic Development
Home District/MSC	The District or MSC responsible for the preparation of the decision document	RMC	Risk Management Center
HQUSACE	Headquarters, U.S. Army Corps of Engineers	RMO	Review Management Organization
IEPR	Independent External Peer Review	RTS	Regional Technical Specialist
ITR	Independent Technical Review	SAR	Safety Assurance Review
LRR	Limited Reevaluation Report	USACE	U.S. Army Corps of Engineers
MSC	Major Subordinate Command	WRDA	Water Resources Development Act

Review Plan Checklist
for Implementation Documents

Date: 03 February 2015

Originating District: MVS

Project/Study Title: Cape Girardeau, Missouri

PWI #: 075574

District POC: [redacted]

Please fill out this checklist and submit with the draft Review Plan when coordinating with the appropriate RMO. For DQC, the District is the RMO; for ATR of Dam and Levee Safety Studies, the Risk Management Center is the RMO; and for non-Dam and Levee Safety projects and other work products, MVD is the RMO; for Type II IEPR, the Risk Management Center is the RMO. Any evaluation boxes checked 'No' indicate the RP possibly may not comply with EC 1165-2-209 and should be explained. Additional coordination and issue resolution may be required prior to MSC approval of the Review Plan.

REQUIREMENT	REFERENCE	EVALUATION
1. Is the Review Plan (RP) a standalone document?	EC 1165-2-209, Appendix B, Para 4a	☑ **Yes** ☐ **No**
a. Does it include a cover page identifying it as a RP and listing the project/study title, originating district or office, and date of the plan?		☑ Yes ☐ No
b. Does it include a table of contents?		☑ Yes ☐ No
c. Is the purpose of the RP clearly stated and EC 1165-2-209 referenced?	EC 1165-2-209 Para 7a	☑ Yes ☐ No
d. Does it reference the Project Management Plan (PMP) of which the RP is a component including P2 Project #?	EC 1165-2-209 Para 7a (2)	☑ Yes ☐ No
e. Does it include a paragraph stating the title, subject, and purpose of the work product to be reviewed?	EC 1165-2-209 Appendix B, Para 4a	☑ Yes ☐ No
f. Does it list the names and disciplines in the home district, MSC and RMO to whom inquiries about the plan may be directed?* **Note: It is highly recommended to put all team member names and contact information in an appendix for easy updating as team members change or the RP is updated.*	EC 1165-2-209, Appendix B, Para 4a	☑ Yes ☐ No

REQUIREMENT	REFERENCE	EVALUATION
2. Documentation of risk-informed decisions on which levels of review are appropriate.	EC 1165-2-209, Appendix B, Para 4b	☑ **Yes** ☐ **No**
a. Does it succinctly describe the three levels of peer review: District Quality Control (DQC), Agency Technical Review (ATR), and Independent External Peer Review (IEPR)?	EC 1165-2-209 Para 7a	☑ Yes ☐ No
b. Does it contain a summary of the CW implementation products required?	EC1165-2-209 Para 15	☑ Yes ☐ No
c. DQC is always required. The RP will need to address the following questions:	EC1165-2-209 Para 15a	☑ Yes ☐ No
i. Does it state that DQC will be managed by the home district in accordance with the Major Subordinate Command (MSC) and district Quality Management Plans?	EC1165-2-209 Para 8a	☑ Yes ☐ No
ii. Does it list the DQC activities (for example, 30, 60, 90, BCOE reviews, etc)	EC 1165-2-209 Appendix B (1)	☑ Yes ☐ No
iii. Does it list the review teams who will perform the DQC activities?	EC 1165-2-209 Appendix B, Para 4g	☑ Yes ☐ No
iv. Does it provide tasks and related resource funding and schedule showing when the DQC activities will be performed?	EC 1165-2-209 Appendix B, Para 4c	☑ Yes ☐ No
d. Does it assume an ATR is required and if an ATR is not required does it provide a risk based decision of why it is not required? If an ATR is required the RP will need to address the following questions:	EC1165-2-209 Para 15a	☑ Yes ☐ No
i. Does it identify the ATR District, MSC, and RMO points of contact?	EC 1165-2-209 Para 7a	☑ Yes ☐ No ☐ N/A
ii. Does it identify the ATR lead from outside the home MSC?	EC 1165-2-209 Para 9c	☑ Yes ☐ No

REQUIREMENT	REFERENCE	EVALUATION
iii. Does it provide a succinct description of the primary disciplines or expertise needed for the review (not simply a list of disciplines)? If the reviewers are listed by name, does the RP describe the qualifications and years of relevant experience of the ATR team members?* **Note: It is highly recommended to put all team member names and contact information in an appendix for easy updating as team members change or the RP is updated.*	EC 1165-2-209 Appendix B, Para 4g	☑ Yes ☐ No ☐ N/A
iv. Does it provide tasks and related resource, funding and schedule showing when the ATR activities will be performed?	EC 1165-2-209 Appendix C, Para 3e	☑ Yes ☐ No ☐ N/A
v. Does the RP address the requirement to document ATR comments using Dr Checks?	EC 1165-2-209 Para 7d (1)	☑ Yes ☐ No ☐ N/A
e. Does it assume a Type II IEPR is required and if a Type II IEPR is not required does it provide a risk based decision of why it is not required including RMC/ MSC concurrence? If a Type II IEPR is required the RP will need to address the following questions:	EC1165-2-209 Para 15a	☑ Yes ☐ No
i. Does it provide a defensible rationale for the decision on Type II IEPR?	EC 1165-2-209 Para 7a	☑ Yes ☐ No ☐ N/A
ii. Does it identify the Type II IEPR District, MSC, and RMO points of contact?	EC 1165-2-209 Appendix B, Para 4a	☑ Yes ☐ No ☐ N/A
iii. Does it state that for a Type II IEPR, it will be contracted with an A/E contractor or arranged with another government agency to manage external to the Corps of Engineers?	EC 1165-2-209 Appendix B, Para 4k (4)	☐ Yes ☐ No ☑ N/A
iv. Does it state for a Type II IEPR, that the selection of IEPR review panel members will be made up of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of expertise suitable for the review being conducted?	EC 1165-2-209 Appendix B, Para 4k(1) and Appendix E, Para's 1a & 7	☐ Yes ☐ No ☑ N/A

REQUIREMENT	REFERENCE	EVALUATION
v. Does it state for a Type II IEPR, that the selection of IEPR review panel members will be selected using the National Academy of Science (NAS) Policy which sets the standard for "independence" in the review process?	EC 1165-2-209 Para 6b (4) and Para 10b	☐ Yes ☐ No ☑ N/A
vi. If the Type II IEPR panel is established by USACE, has local (i.e. District) counsel reviewed the Type II IEPR execution for FACA requirements?	EC1165-2-209 Appendix E, Para 7c(1)	☐ Yes ☐ No ☑ N/A
vii. Does it provide tasks and related resource, funding and schedule showing when the Type II IEPR activities will be performed?	EC1165-2-209 Appendix E, Para 5a	☐ Yes ☐ No ☑ N/A
viii. Does the project address hurricane and storm risk management or flood risk management or any other aspects where Federal action is justified by life safety or significant threat to human life?	EC1165-2-209 Appendix E, Para 2	☐ Yes ☐ No ☑ N/A
Is it likely? If yes, Type II IEPR must be addressed.		☐ Yes ☑ No
ix. Does the RP address Type II IEPR factors? Factors to be considered include: • Does the project involve the use of innovative materials or techniques where the engineering is based on novel methods, presents complex challenges for interpretations, contains precedent setting methods or models, or presents conclusions that are likely to change prevailing practices? • Does the project design require redundancy, resiliency and robustness • Does the project have unique construction sequencing or a reduced or overlapping design construction schedule; fro example, significant project features accomplished using the Design-Build or Early Contractor Involvement (ECI) delivery systems.		☐ Yes ☐ No ☑ N/A
f. Does it address policy compliance and legal review? If no, does it provide a risk based decision of why it is not required?	EC 1165-2-209 Para 14	☑ Yes ☐ No ☐ N/A

REQUIREMENT	REFERENCE	EVALUATION
3. Does the RP present the tasks, timing, and sequence of the reviews (including deferrals)?	EC 1165-2-209, Appendix B, Para 4c	☑ **Yes** ☐ **No**
a. Does it provide and overall review schedule that shows timing and sequence of all reviews?	EC 1165-2-209, Appendix C, Para 3g	☑ Yes ☐ No
b. Does the review plan establish a milestone schedule aligned with the critical features of the project design and construction?	EC 1165-2-209, Appendix E, Para 6c	☑ Yes ☐ No
4. Does the RP address engineering model certification requirements?	EC 1165-2-209, Appendix B, Para 4i	☐ **Yes** ☐ **No** ☑ **N/A**
a. Does it list the models and data anticipated to be used in developing recommendations?		☐ Yes ☐ No ☑ N/A
b. Does it indicate the certification /approval status of those models and if certification or approval of any model(s) will be needed?		☐ Yes ☐ No ☑ N/A
c. If needed, does the RP propose the appropriate level of certification/approval for the model(s) and how it will be accomplished?		☐ Yes ☐ No ☑ N/A
5. Does the RP explain how and when there will be opportunities for the public to comment on the study or project to be reviewed?	EC 1165-2-209, Appendix B, Para 4d	☑ **Yes** ☐ **No** ☐ **N/A**
a. Does it discuss posting the RP on the District website?		☑ Yes ☐ No ☐ N/A
b. Does it indicate the web address, and schedule and duration of the posting?		☑ Yes ☐ No ☐ N/A
6. Does the RP explain when significant and relevant public comments will be provided to the reviewers before they conduct their review?	EC 1165-2-209, Appendix B, Para 4e	☑ **Yes** ☐ **No** ☐ **N/A**
a. Does it discuss the schedule of receiving public comments?		☑ Yes ☐ No ☐ N/A
b. Does it discuss the schedule of when significant comments will be provided to the reviewers?		☑ Yes ☐ No ☐ N/A

REQUIREMENT	REFERENCE	EVALUATION
7. Does the RP address whether the public, including scientific or professional societies, will be asked to nominate professional reviewers?*	EC 1165-2-209, Appendix B, Para 4h	☐ **Yes** ☑ **No** ☐ **N/A**
a. If the public is asked to nominate professional reviewers then does the RP provide a description of the requirements and answer who, what, when, where, and how questions? ** Typically the public will not be asked to nominate potential reviewer*		☐ Yes ☑ No ☐ N/A
8. Does the RP address expected in-kind contributions to be provided by the sponsor?	EC 1165-2-209, Appendix B, Para 4j	☐ **Yes** ☐ **No** ☑ **N/A**
a. If expected in-kind contributions are to be provided by the sponsor, does the RP list the expected in-kind contributions to be provided by the sponsor?		☐ Yes ☐ No ☑ N/A
9. Does the RP explain how the reviews will be documented?		☐ **Yes** ☑ **No**
a. Does the RP address the requirement to document ATR comments using Dr Checks and Type II IEPR published comments and responses pertaining to the design and construction activities summarized in a report reviewed and approved by the MSC and posted on the home district website?	EC 1165-2-209, Para 7d	☐ Yes ☑ No ☑ N/A
b. Does the RP explain how the Type II IEPR will be documented in a Review Report?	EC 1165-2-209 Appendix B , Para 4k (14)	☐ Yes ☑ No ☐ N/A
c. Does the RP document how written responses to the Type II IEPR Review Report will be prepared?	EC 1165-2-209 Appendix B, Para 4k (14)	☐ Yes ☑ No ☐ N/A
d. Does the RP detail how the district/PCX/MSC and CECW-CP will disseminate the final Type II IEPR Review Report, USACE response, and all other materials related to the Type II IEPR on the internet?	EC 1165-2-209 Appendix B, Para 5	☐ Yes ☑ No ☐ N/A
10. Has the approval memorandum been prepared and does it accompany the RP?	EC 1165-2-209, Appendix B, Para 7	☑ **Yes** ☐ **No**

CEMVD-RB-T 13 March 2015

MEMORANDUM FOR CEMVD-PD-SP [redacted]

SUBJECT: Review Plan for Cape Girardeau Reconstruction Project

1. Reference memorandum, CEMVS-EC, undated, subject as above.

2. This office concurs with subject Review Plan.

3. The RB-T point of contact is [redacted].

[redacted]
Chief, Business Technical
Division

Encl 2

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
RISK MANAGEMENT CENTER
12596 WEST BAYAUD AVE., SUITE 400
LAKEWOOD, CO 80228

REPLY TO
ATTENTION OF

CEIWR-RMC

6 March 2015

MEMORANDUM FOR: [redacted], ATTN: CEMVS-PM-N

SUBJECT: Rationale to Not Conduct a Type II IEPR (SAR) for the Cape Girardeau Flood Protection System Reconstruction Project, Cape Girardeau, Missouri

1. The review plan for the Cape Girardeau Flood Protection System Reconstruction Project, Cape Girardeau, Missouri, dated 5 March 2014 included rationale that the remaining construction items do not rise to the level to conduct a Type II IEPR (SAR). "The District Chief of Engineering, as the Engineer in Responsible Charge, assesses that A Type II IEPR is not required for this project because the remaining construction items on the project do to not have a high potential hazard posing a significant threat to human life (public safety)." Based on the above assessment, I concur that a Type II IEPR (SAR) is not required. The Major Subordinate Command (MSC) can assume Review Management Organization responsibilities for the implementation phase of this project. See EC 1165-2-214, Appendix E, Paragraph 1.a.

3. Thank you for the opportunity to review this decision. For further information, please contact me at [redacted].

Sincerely,

[redacted]

Senior Review Manager
Risk Management Center

CF:
CEMVD-RBT (Division Quality Manager)

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