



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

REPLY TO  
ATTENTION OF:

July 15, 2008

Planning, Programs, and Project Management  
Environmental Branch

To whom it may concern:

A copy of the Environmental Assessment (EA) and Draft Finding of No Significant Impact (FONSI) for the "*Electrical Equipment Repairs P.L. 84-99: Cape Girardeau Drainage & Levee District, Cape Girardeau County, Missouri*" are enclosed for your review. Please note that the Draft Finding of No Significant Impact is unsigned. This document will be signed into effect only after having carefully considered comments received as a result of this public review. We invite your comments related to the technical content of the attached documents. Please address your comments or questions to Dr. Thomas Keevin, of the Environmental Branch (CEMVS-PM-E), at telephone number (314) 331-8462, facsimile number (314) 331-8806, or e-mail at <thomas.m.keevin@usace.army.mil>, by close of business on August 15, 2008.

Sincerely,

A handwritten signature in cursive script that reads "Thomas Keevin".

Thomas M. Keevin  
Chief, Environmental Branch

**ENVIRONMENTAL ASSESSMENT WITH DRAFT FINDING OF  
NO SIGNIFICANT IMPACT**

**ELECTRICAL EQUIPMENT REPAIRS (PL 84-99): CAPE GIRARDEAU  
DRAINAGE & LEVEE DISTRICT, CAPE GIRARDEAU COUNTY, MISSOURI**

**1. PURPOSE AND NEED FOR ACTION**

This document is an Environmental Assessment with an attached Draft Finding of No Significant Impact for to the Cape Girardeau Drainage and Levee District. It describes electrical equipment repairs, repair alternatives, and potential environmental impacts associated with each alternative. Under PL84-99, D&L Districts within the federal levee system can request Federal assistance with flood damage repairs.

The Cape Girardeau Drainage & Levee District experienced damage to the Merriweather Pump Station in Cape Girardeau. As the pump station was being placed into operation the main circuit breaker exploded. The main circuit breaker was damaged beyond repair as parts are obsolete and no longer available from the manufacturer. An electrician was hired by the levee district to install cable “jumpers” to bypass the main circuit breaker to bring the station on line. Although this emergency measure allowed the station to operate, it is in violation of Article 430 of the National Electric Code (NFPA 70-2008) which requires a single disconnecting means. The current disconnecting means requires the operation of five (5) pump feeder breakers.

**2. PROJECT LOCATION**

The Federal organized levee system; Urban (FCW) protects 140 acres of the City of Cape Girardeau, Cape Girardeau County, Missouri. The Merriweather Pump Station is within the City of Cape Girardeau.

**3. AUTHORIZATION**

Public Law 84-99 (PL-99), an amendment to the Flood Control Act of 1962, authorizes the US Army Corps of Engineers to assist the D&L Districts in the repair of both Federal (Corps constructed, locally operated and maintained) and non-Federal (constructed by non-Federal interests or by the Work Projects Administration) flood control projects damaged by flooding.

**4. NATIONAL ENVIRONMENTAL POLICY ACT REQUIREMENTS**

If this were a Corps of Engineers’ project to repair electrical equipment at an existing Corps’ facility, it would qualify as a Categorical Exclusion under Section 1508.4 of

Council on Environmental Quality's "*Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act*" (NEPA) (40 CFR Parts 1500-1508). A Categorical Exclusion is "a category of actions which do not individually or cumulatively have a significant effect on the human environment and which have been found to have no such effect in procedures adopted by a Federal agency in implementation of these regulations and for which, therefore, neither an environmental assessment nor an environmental impact statement is required." This project would be covered under Categorical Exclusion #a (ER 200-2-2) – Activities at completed Corps' projects which carry out the authorized project purposes. Examples include.....repair, rehabilitation, replacement of existing structures and facilities such as.....utilities,..."

The environmental effects for this project are so minor that it would not require environmental compliance documentation if it were at a Corps of Engineers' facility. However, because the Cape Girardeau Drainage and Levee District is privately owned, and not a Corp' facility, it is **NOT** exempt from NEPA compliance requirements.

## **5. ALTERNATIVES**

NEPA requires that in analyzing alternatives to a proposed action a Federal agency consider an alternative of "No Action." Likewise, Section 73 of the WRDA of 1974 (PL93-251) requires Federal agencies to give consideration to non-structural measures to reduce or prevent flood damage.

### **A. Nonstructural Alternative**

Nonstructural measures reduce flood damages without significantly altering the nature or extent of flooding. Damage reduction from nonstructural measures is accomplished by changing the use made of the floodplains, or by accommodating existing uses to the flood hazard. Examples are flood proofing, relocation of structures, flood warning and preparedness systems, and regulation of floodplain uses. A flood warning system would do little to reduce structural and agricultural damages. Flood proofing or relocation is not desirable, would have large costs, and result in loss of numerous acres of prime farmland. Therefore, a nonstructural alternative was eliminated from further consideration.

### **B. No Federal Action Alternative**

Under this No Action Alternative, the Federal Government would not assist the D&L District in repairing the electrical system. The D&L District would have the option of paying for the repairs or allowing the deficiency to remain.

### **C. Preferred Alternative: Repair of Electrical System with Federal Assistance**

Under this alternative, the Federal Government would repair the electrical system. Because this is a federal levee system, the repair costs would be 100% federal.

## **6. IMPACT ASSESSMENT**

### **Existing Conditions**

The final electrical repair will consist of retrofitting a main circuit breaker into the existing switchgear. As such, all repair work would be restricted to the inside of a pumping station and there would be no impacts expected to the environment outside of the pump station.

### **Non-structural Alternative**

The non-structural alternative was eliminated during preliminary planning because it is not desirable to the sponsor and would have large costs.

### **Federal Action (Recommended Plan/Alternative)**

Because of the location of repairs, there are no anticipated impacts to water resources; terrestrial resources; prime farmland; flora or fauna; fisheries; threatened or endangered species; air quality; noise; hazardous, toxic and radioactive waste sites; recreation; aesthetics; socioeconomics; and cultural or historic resources. There are no Environmental Justice issues associated with this project. Should any asbestos be found during electrical repair efforts that require disposal, it would be done to fully comply with all Federal, State, and Corps of Engineers' regulations.

### **No Federal Action**

If no repairs are accomplished, flood protection could be jeopardized during the next significant flood event. However, if federal repairs are not authorized it is likely the Drainage and Levee District would attempt repairs sometime in the future. Limited funds could delay repair, extend repair time, causing longer duration of increased flood risk to the City of Cape Girardeau.

## **7. CUMULATIVE IMPACT ANALYSIS**

System-wide repairs to levees along the Upper Mississippi River due to flooding in both the spring and summer of 2008 are currently underway. Final repairs would involve repairing levee slope slumps by mixing the soil with lime, returning it to the slope, compacting the soil, and returning most of the levee breaches to the same alignment and level of protection as existed prior to the flood of 2008. Temporary impacts from noise, air, and water pollution would occur; however, repair sites are widely scattered throughout the St. Louis District and therefore additive effects of these impacts would be negligible. Other PL84-99 projects currently being planned include projects that require borrow and some that are infeasible to repair on the original alignment, such as the damage to the Vandalia D&L District. Borrow would most likely come from agriculture areas or previously identified areas. For new levee alignments, some acreage would be removed from agricultural use causing a minor loss to overall farm production and increase in floodplain habitat. The widely scattered nature of repair sites and shallow excavation depth of borrow sites would reduce impacts and no long term adverse impacts are expected. An effort is also under way, with the assistance of The Nature

Conservancy, to evaluate the potential for using borrow sites riverside of agricultural levees for ecosystem restoration, by creating floodplain lakes.

**8. THREATENED & ENDANGERED SPECIES: BIOLOGICAL ASSESSMENT**

All repair activities are restricted to the inside of a pump station. No known impacts from the proposed work are expected to impact any species, including threatened or endangered species.

**9. HISTORIC PROPERTIES COMPLIANCE**

Repair activities (main circuit breaker replacement) associated with the flood damage repairs will have no effect upon potentially significant historic properties. No earthmoving activities in previously undisturbed contexts are anticipated as part of the project.

**9. ENVIRONMENTAL REGULATORY CONSTRAINTS**

The Preferred Alternative was subject to compliance review with all applicable environmental regulations and guidelines. The Preferred Alternative will be in full compliance with all applicable acts and legislation with the signing of the Finding of No Significant Impact.

**8. RELATIONSHIP OF PLANS TO ENVIRONMENTAL LAWS AND REGULATIONS**

<b>Federal Policies</b>	<b>Compliance</b>
Bald Eagle Protection Act, 42 USC 4151-4157	Full
Clean Air Act, 42 USC 7401-7542	Full
Clean Water Act, 33 USC 1251-1375	Full
Comprehensive Environmental Response, Compensation, and Liability Act, 42 USC 9601-9675	Full
Endangered Species Act, 16 USC 1531-1543	Full
Farmland Protection Policy Act, 7 USC 4201-4208	Full
Fish and Wildlife Coordination Act, 16 USC 661-666c	Full

Food Security Act of 1985, 7 USC varies	Full
Land and Water Conservation Fund Act, 16 USC 460d-4601	Full
National Environmental Policy Act, 42 USC 4321- 4347	Partial <sup>1</sup>
National Historic Preservation Act, 16 USC 470 <i>et seq.</i>	Partial <sup>2</sup>
Noise Pollution and Abatement Act, 42 USC 7691-7642	Full
Resource, Conservation, and Rehabilitation Act, 42 USC 6901-6987	Full
Rivers and Harbors Appropriation Act, 33 USC 401-413	Full
Water Resources Development Acts of 1986 and 1990	Full
Floodplain Management (EO 11988 as amended by EO 12148)	Full
Prevention, Control, and Abatement of Air and Water Pollution at Federal Facilities (EO 11282 as amended by EO's 11288 and 11507)	Full
Protection and Enhancement of Environmental Quality (EO 11991)	Full
Protection and Enhancement of the Cultural Environment (EO 11593)	Full
Protection of Wetlands (EO 11990 as amended by EO 12608)	Full

Full compliance: having met all requirements of the statute for the current stage of planning

Not applicable: compliance with the statute not required

1 Full compliance to be achieved with the District Engineer's signing of the Finding of No Significant Impact

2 Full compliance to be achieved with the State Historic Preservation Officer's concurrence in the District's EA conclusions.

## **10. COORDINATION WITH OTHER STATE AND FEDERAL AGENCIES**

This Environmental Assessment and Draft Finding of No Significant Impact has been provided to the following State and Federal agencies for their review, comments, and concurrence during the 30 day public comment period.

U.S. Fish and Wildlife Service  
U.S. Environmental Protection Agency  
Federal Emergency Management Agency  
Natural Resources Conservation Service  
Missouri Department of Conservation  
Missouri State Historic Preservation Office  
Missouri Emergency Management Agency

To assure compliance with the National Environmental Policy Act, Endangered Species Act, and other applicable environmental laws and regulations, coordination with these agencies would continue as required throughout the planning and construction phases of the proposed levee repairs.

## **11. LIST OF PREPARERS**

Mr. Bruce Douglas, Civil Engineer Role: Project Manager  
Dr. Terry Norris, District Archaeologist Role: Archeological Compliance  
Dr. Thomas Keevin, Biologist Role: Environmental Assessment

## **DRAFT FINDING OF NO SIGNIFICANT IMPACT**

### **ELECTRICAL EQUIPMENT REPAIRS (PL 84-99): CAPE GIRARDEAU DRAINAGE & LEVEE DISTRICT, CAPE GIRARDEAU COUNTY, MISSOURI**

1. I have reviewed and evaluated the documents concerning the proposed repair of electrical equipment in the Cape Girardeau Drainage & Levee District, Cape Girardeau County, Missouri. The failure of the main circuit breaker reduces the ability of the system to provide the authorized level of flood protection. The St. Louis District proposes to retrofit a main circuit breaker into the existing switchgear.
  
2. I have also evaluated other pertinent data and information on these repairs. As part of this evaluation, I have considered the following project alternatives.
  - a. Providing Federal assistance with repairs to the electrical system (Recommended Alternative).
  
  - b. No Federal Action ("No Action" Alternative).
  
  - c. Non-structural Alternative
  
3. The non-structural alternative was eliminated during preliminary planning because it is not desirable to the sponsor and would have large costs. The possible consequences of the remaining two alternatives have been studied for physical, environmental, cultural, social and economic effects, and engineering feasibility. Significant factors evaluated as part of my review include:
  - a. If no repairs are accomplished, flood protection could be jeopardized during the next significant flood event. However if federal repairs are not authorized, it is likely the Drainage and Levee District would attempt repairs sometime in the future. Limited funds could delay repair, extend repair time, causing longer duration of increased flood risk to the City of Cape Girardeau..
  
  - b. The final electrical repair will consist of retrofitting a main circuit breaker into the existing switchgear. As such, all repair work would be restricted to the inside of a pumping station and there would be no impacts expected to the environment outside of the pump station. Because of the location of repairs, there are no anticipated impacts to water resources; terrestrial resources; prime farmland; flora or fauna; fisheries; threatened or endangered species; air quality; noise; hazardous, toxic and radioactive waste sites; recreation; aesthetics; socioeconomics; and cultural or historic resources. There are no Environmental Justice issues associated with this project.

c. Should any asbestos be found during electrical repair efforts that require disposal, it would be done to fully comply with all Federal, State, and Corps of Engineers' regulations.

4. Based on my analysis and evaluation of the alternative courses of action presented in the Environmental Assessment, I have determined that the implementation of the recommended plan would not have significant effects on the quality of the environment. Therefore, an Environmental Impact Statement would not be prepared prior to proceeding with this action.

---

Date

---

Thomas E. O'Hara, Jr.  
Colonel, U.S. Army  
District Engineer