PMC-EF2a
(2.04.02)

U.S. DEPARTMENT OF ENERGY
EERE PROJECT MANAGEMENT CENTER
NEPA DETERMINATION

RECIPIENT: City of North Little Rock **STATE:** AR

PROJECT TITLE: Recovery Act: Hydroelectric Facility Improvement Project – Replacement of Current Mechanical Seal System with Rope Packing System

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000120	DE-EE0002674	GFO-0002674-003	GO2674

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Order 451.1A), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:
Description:

B5.1 Actions to conserve energy or water (a) Actions to conserve energy or water, demonstrate potential energy or water conservation, and promote energy efficiency that would not have the potential to cause significant changes in the indoor or outdoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, manufacturers, and designers), organizations (such as utilities), and governments (such as state, local, and tribal). Covered actions include, but are not limited to weatherization (such as insulation and replacing windows and doors); programmed lowering of thermostat settings; placement of timers on hot water heaters; installation or replacement of energy efficient lighting, low-flow plumbing fixtures (such as faucets, toilets, and showerheads), heating, ventilation, and air conditioning systems, and appliances; installation of drip-irrigation systems; improvements in generator efficiency and appliance efficiency ratings; efficiency improvements for vehicles and transportation (such as fleet changeout); power storage (such as flywheels and batteries, generally less than 10 megawatt equivalent); transportation management systems (such as traffic signal control systems, car navigation, speed cameras, and automatic plate number recognition); development of energy-efficient manufacturing, industrial, or building practices; and small-scale energy efficiency and conservation research and development and small-scale pilot projects. Covered actions include building renovations or new structures, provided that they occur in a previously disturbed or developed area. Covered actions could involve commercial, residential, agricultural, academic, institutional, or industrial sectors. Covered actions do not include rulemakings, standard-settings, or proposed DOE legislation, except for those actions listed in B5.1(b) of this appendix. (b) Covered actions include rulemakings that establish energy conservation standards for consumer products and industrial equipment, provided that the actions would not: (1) have the potential to cause a significant change in manufacturing infrastructure (such as construction of new manufacturing plants with considerable associated ground disturbance); (2) involve significant unresolved conflicts concerning alternative uses of available resources (such as rare or limited raw materials); (3) have the potential to result in a significant increase in the disposal of materials posing significant risks to human health and the environment (such as RCRA hazardous wastes); or (4) have the potential to cause a significant increase in energy consumption in a state or region.

Rational for determination:

This NEPA review is being conducted due to a change in scope from a previous proposed project activity by North Little Rock Electric Department (LRE). LRE is no longer proposing to install an intake cleaning system into their Murray Hydroelectric Lock and Dam #7 facilities. This activity is represented as a rescoped Task 6.0 in the updated SOPO.

All remaining tasks for LRE's project have received a NEPA categorical exclusion in prior reviews. A CX A9 was determined applicable for tasks 1.0 – 4.0, 7.0 and 8.0. A CX B5.1 was determined applicable for task 5.0, which involved the purchase a tub grinder in order to dispose of woody debris that blocks the intake of water into the hydro facilities.

Tasks listed in the revised SOPO for this project include:

1.0 Conceptual Design
2.0 Engineering Design
3.0 Procurement Advertisement
4.0 Procurement Selection
5.0 Implementation (tub grinder)
6.0 Installation (proposed purchase and installation of the rope packing seal systems)
7.0 Personnel Training
8.0 Project Management & Reporting

Description:

For Task 6.0, LRE is proposing to use DOE ARRA funding to replace two of the hydro facility's mechanical turbine shaft seal systems with rope packing shaft seal systems at the Murray Hydroelectric Lock and Dam, located on a diverted section of the Arkansas River. The seal system is a component of the turbine that sits inside the powerhouse at the dam site.

Replacement activities would take place inside the dam's powerhouse and would include the removal and disposal of the current shaft seal system components with a rope packing seal system. The rope seal system is easier to replace when the seals become worn and is more efficient in keeping the intake channel clear of the river's heavy volume of debris and sediment. The replacement seal system would be designed to fit into the existing system, so no physical modification to the hydro facility would be required.

Wildlife and Endangered Species:

The US Fish and Wildlife Service was consulted on this project and they indicated that no endangered species would be threatened by this project nor would the proposed replacement impact any fish species in the Arkansas River. A database search conducted by DOE indicated that there are no endangered species in this part of the Arkansas River that would be affected by DOE's funding action or implementation of this project.

Permits and Approvals:

The U.S. Army Corps was consulted for the proposed change in scope and determined that the new activities did not trigger Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act. Their reply stated that they have no jurisdiction or need for further consultation for the proposed installation of the rope packing seal system.

The Federal Energy Regulatory Commission (FERC) was also contacted for consultation since the hydro facilities have an existing federal permit allowing facility operation. The proposed activities are considered regular maintenance to FERC and, therefore, no changes to the current license would be required.

Conclusion:

As discussed above, potential impacts to the river fisheries, endangered species, and water quality would be negligible since proposed activities would take place in existing powerhouse facilities. DOE has determined that there would be no significant impacts associated with allowing expenditure of ARRA federal funding by LRE for their proposed installation of a replacement rope packing shaft seal system. Activities described under this project comprise "actions to conserve energy and improvements to generator efficiency"; therefore a DOE CX B5.1 applies.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

Review completed by Laura Margason on July 24, 2012

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 7/25/2012

NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION

☐ Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:

☐ Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.