PMC-EF2a

(2.04.02)

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

**RECIPIENT:** Escambia County **STATE:** FL

**PROJECT TITLE :** Road Prison Geothermal Earth Coupled HVAC Upgrade

| Funding Opportunity Announcement Number | Procurement Instrument Number | NEPA Control Number | CID Number |
|---|---|---|---|
| DE-FOA-0000013 | DE-EE0000784 | | 0 |

**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, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.

Rational for determination:

Escambia County is proposing to use EECBG ARRA funding to remove the existing inefficient air cooled chillers, heating and domestic hot water systems, and ice making machines and install an energy efficient geothermal heating, cooling, and refrigeration system at the Escambia County Road Department and Road Prison. The system will service approximately 25,000 square feet of prison facility. The ground source heat pump system will be a vertical, closed loop system with a capacity of 176 tons. There will be 196 boreholes drilled covering 81,000 square feet. The state certified and licensed driller will follow IGSHPA and NGWA regulations during installation. The system will use HDPE piping that is heat fused and all wells will be fully grouted with a thermally enhanced bentonite grout. The refrigerant used in the system will be potable water. Drilling spoils are the only expected waste from the project and will be re-used on-site. The site will be farmed as normal after the installation of the geothermal well field.

The geothermal well field portion of the project will be installed in an existing vegetable crop field during the non-planting season. After the geothermal well field is installed, the field will be planted as normal. An archeological survey has been conducted for the proposed well field location which concluded that there were no cultural or historic resources that would be adversely affected by the proposed project. The area surrounding the project location is heavily developed industrial and light residential. The prison facility shares a large plot of land with the road maintenance department for the county with the entire area being fenced in and used for storage of road construction materials. The county has consulted with the Florida Fish and Wildlife Conservation Commission to verify that there would be no adverse effects to threatened and endangered species as a result of the proposed project.

After a thorough review of the information submitted for the proposed project, it has been determined that the actions involved will not have a significant impact to human health and /or the environment. The proposed project will result in a reduction in the use of conventional fossil fuels; therefore it is hereby Categorically Excluded B5.1 "actions to conserve energy," from further NEPA review.

**NEPA PROVISION**

Insert the following language in the award:

You are required to:
Prior to the expenditure of Federal funds to implement any of the above activities, Escambia County has the affirmative responsibility to ensure they are in compliance with Sec. 106 of the National Historic Preservation Act (NHPA), consistent with DOE's 2009 letter of delegation of authority regarding the NHPA. If applicable, the sub-recipient must contact the State Historic Preservation Officer.

The recipient is required to obtain the necessary permits regarding all actions involved in the proposed project.

Note to Specialist :

None Given.

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**

NEPA Compliance Officer Signature: _____ Date: 9/7/10

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.

☐ Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

**BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :**

Field Office Manager's Signature: _____ Date: _____

Field Office Manager