PMC-EF2a
(2.04.02)

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

RECIPIENT: State of Connecticut, Office of Policy and Management **STATE:** CT

PROJECT TITLE : EECBG- Sherman - Geothermal Heat Pump Installation

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000013			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:

The Town of Sherman is proposing to use ARRA funds to install a 30 ton vertical closed-loop ground source heat pump system to supplement the existing HVAC system for the 17,067 square foot Emergency Services Facility located in the Town of Sherman and housing the Sherman Volunteer Fire Department.

For this project, there will be 10 bore holes which will be drilled to a depth of 425 feet. The borefield is proposed to be installed on the parking lot, therefore the drilling will occur on previously disturbed land. The boreholes will be drilled by a state licensed driller and a well drilling permit application will be submitted to the Sherman Health Department. All boreholes will be grouted in a thermally enhanced bentonite grout that is designed to withstand cracking from the changes in temperature between the ground and the heat exchange pipe. This ensures that the area around the borehole is sealed to keep any surface runoff from contaminating ground water. The system will employ high density polyethylene pipe that is heat fused at the joints which greatly minimizes the risk of leaks in the system preventing possible contamination of soil and ground water sources. The system installation will follow National Ground Water Association recommendations and the refrigerant used will be a non-toxic mixture of potable water and 20% propylene glycol solution which will be distributed throughout the building to provide adequate heating and cooling. These standards will minimize the risk of contamination from surface water.

A GIS study was conducted on the proposed project location using NEPAssist, the review indicated that freshwater forested /shrub wetlands exists less than 1 mile away from the site location. However, there will be no impacts on the wetlands as a result of the installation of the geothermal boreholes. The installation will use erosion control methods such as silt fencing and hay bails. Such mitigation and best management practices will be implemented during construction for protective measures.

The building being renovated is not listed on the National Register of Historic Places and is not considered eligible for such a listing. Therefore, this project will have no significant impact on historical or cultural resources.

After a thorough review of the information submitted for the proposed project, it has been concluded that the proposed project will not have a significant impact to human health and /or the environment. Therefore the proposed project is hereby Categorically Excluded as B5.1 "actions to conserve energy" from further NEPA review

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

NEPA review conducted by John Jediny

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