PMC-EF2a

(2.04.02)

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

RECIPIENT: Hiawatha CUSD #426 **STATE:** IL

PROJECT TITLE : Hiawatha CUSD #426 Geothermal

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000052	EE0000119		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 State of Illinois will provide the Hiawatha Community Unit School District #426 with $75,000 in Recovery Act funds to install a ground source heat pump system in a new, 30,000 square foot addition to the high school. This project involves the conversion of the existing HVAC system serving the high school building to a geothermal heat pump system. The work will require some electrical modifications to power the heat pumps. The work will involve the installation of individual heat pump controls within each classroom to allow customized heating and cooling.

The proposed ground source heat pump system will be a 100-ton, closed loop, vertical system. The well field will have approximately 70 boreholes drilled to a depth of 450ft. The boreholes are not expected to intersect with groundwater. The recipient states that the drilling will be performed by a state licensed and/or certified driller who will follow the IGSHPA and NWGA guidelines and design standards for geothermal installations. All boreholes will be grouted with a thermally enhanced bentonite grout that is designed to withstand cracking from temperature changes, will use high density polyethylene pipe that is heat fused at the joints to minimize the risk of leaks, and will use a non-toxic refrigerant consisting of propylene glycol and potable water. The recipient states that all site conditions will be returned to original conditions. This will include backfilling, soil compaction, seeding, and general restorations to previous conditions. All waste materials will be disposed of in accordance to all applicable regulations. The recipient ensures that all permits will be submitted with the Regional Office of Education for DeKalb County. There are no floodplains or coastal zones in proximity to the proposed site location. The site is 0.25 miles from the nearest wetland. Due to the level of development at and around the proposed installation site, it has been concluded that there will be no adverse impacts to threatened and endangered species or cultural resources.

Based on the information provided by the State and recipient, the proposed project is not likley to have a significant impact to human health and/or environment. In view of the information provided above, the proposed project is consistent with categorical exclusion B5.1 "actions to conserve energy."

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

According to the project officer, funding for this project is $75,000. Unless there is a significant change in scope, a change in funding will not affect my determination.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 4/21/10

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