

PMC-EF2a

(2.04.02)

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



RECIPIENT: Illinois Department of Commerce & Economic Opportunity

STATE: IL

PROJECT TITLE : Rantoul City Schools; Rantoul City Schools

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000052	EE0000119	GFO-10-468	EE119

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 \$480,000 in Recovery Act funds to Rantoul City Schools to cover the costs associated with the installation of ground source heat pump systems and corresponding HVAC equipment, energy efficient lighting, and new windows in four city schools. The schools are Eastlawn Intermediate School, Northview Intermediate School, Pleasant Acres Intermediate School, and Broadmeadow Intermediate School.

The ground source heat pump systems at each school is a vertical, closed loop system. The system at Eastlawn has a heating and cooling capacity of 120-tons and required 55 boreholes drilled to a depth of 300ft, the system at Northview is 134-tons and required 48 boreholes drilled to a depth of 300ft, the system at Pleasant Acres is 126-tons and required 66 boreholes drilled to a depth of 300ft, and the system at Broadmeadow is 113-tons and required 66 boreholes drilled to a depth of 300ft. The geothermal fields followed the installation guidelines described below:

- The drilling was performed by an Illinois-licensed contractor who followed IGSHP Association guidelines.
- The boreholes were grouted with a thermally enhanced bentonite grout designed to withstand cracking from temperature changes.
- The systems use high density polyethylene pipe that is heat fused at the joints to minimize the risk of leaks.
- The systems are using a non-toxic refrigerant that is a 10% mixture of propylene glycol and potable water.
- All necessary permits were obtained before construction started.

Erosion control measures were used that included silt fencing during construction and seeds and straw after construction. The ground was restored to its natural condition after the well field was installed. The contractor disposed of the waste materials generated during installation. No hazardous waste was encountered.

The geothermal well field at each school was installed in a mowed grass lawn adjacent to the existing school building. The area surrounding the site location is best characterized as residential and light commercial. Analysis of the National Wetland Inventory on the EPA's NEPAAssist indicates that there are no wetlands or floodplains in proximity to the proposed site location.

DOE is aware that the installation of the geothermal system is complete. A post construction site visit was conducted on June 16th, 2010 by personnel from the DOE Golden Field Office to inspect the project site and assess potential environmental impacts due to the construction. Through information obtained during the site visit, it is concluded that there were no adverse impacts to the site or the surrounding area. The geothermal system was installed as described by the information above.

After a thorough review of the submitted information and a post-construction site visit, it has been determined that the project has not had a significant impact to human health and/or environment. Based on the information provided, the

work outlined is consistent with activities outlined in Categorical Exclusion B5.1.

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 \$480,000. Since the work is now complete and the State is paying for the work in arrears, payment based on submitted invoices may be warranted.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____
NEPA Compliance Officer

Date: 6/24/10

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: _____
Field Office Manager

Date: _____