

PMC-EF2a

(2.04.02)

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



**RECIPIENT:** Minnesota Department of Commerce, Office of Energy Security

**STATE:** MN

**PROJECT TITLE :** GSHP Installation - Lac Qui Parle County Courthouse, MN

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE FOA 0000052	EE0000164	GFO-0000164-017	EE164

**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:**

Lac Qui Parle County will install a 35-ton ground source heat pump (GSHP) system in its Courthouse located at 600 6th Street, Madison, MN. The 35-ton GSHP system will consist of 18 small geothermal heat pumps units ranging in size from 0.5-ton to 4-ton.

The County Courthouse, was constructed in 1899, as such the Minnesota SHPO was consulted pursuant to Section 106 of the National Historic Preservation Act. The Minnesota SHPO issued a letter on April 27th 2011 stating "Thank you for submitting the archaeological assessment prepared by Christina Harrison of Archaeological Research Services. Based on the results of this assessment, we conclude that no properties eligible for or listed in the National Register of Historic Places will be affected by this project". The heat pumps will be installed internally to the courthouse and will be connected through the existing supply and return ductwork, minimum retrofitting will be required. The air handling unit and air conditioning unit are located in the attic of the courthouse. The GHP system is a vertical borehole system which will consist of 48 boreholes to a depth of approximately 150 feet and will be spaced 20 feet apart, mitigating the risk posed by thermal overload. The heat exchange fluid will be a mix of potable water and USP-grade or food-grade propylene glycol. The total area disturbed will be approximately 60' W x 100' L x 6' D. A Minnesota Department of Health licensed driller will perform all drilling. No deforestation will be required for the project. GSHP installation contractors are required to be licensed and/or bonded as applicable under state or local requirements and will follow IGSHPA guidelines for system installation and commissioning. All electrical work must be performed by a licensed electrician working for a licensed electrical contractor. Excess soil and brush will be used to refill the excavation area. The area will be re-graded to its previous elevation and re-seeded with grass or native vegetation.

Through a review of the above information, it has been determined that the proposed project will not have a significant impact to human health and/or environment. Therefore the proposed project is hereby Categorical Excluded under 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:

Insert the following language in the award:

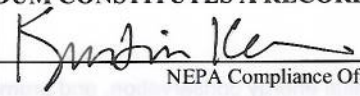
You are required to:

- A Minnesota Department of Health licensed driller is required to perform all drilling.
- The Proponent shall submit and acquire a permit to install a vertical heat exchange device (earth coupled heat loop) pursuant to Minnesota Statutes, Chapter 1031 and rules adopted there under. from the Minnesota Department of Health, and is required to follow all conditions of said permit.
- The system installer shall deploy silt fences around the parameter of the area disturbed by the GHP drilling/installation.
- The area disturbed will be re-graded to its previous elevation and re-seeded with grass or native vegetation.

Note to Specialist :

EF2a prepared by John Jediny (contact Melissa Rossiter for any questions).

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

NEPA Compliance Officer Signature:  NEPA Compliance Officer Date: 6/27/2011

**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