PMC-EF2a
(2.04.02)

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

RECIPIENT: City of DeSmet **STATE:** SD

PROJECT TITLE : City of DeSmet

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000119	EE0000953		EE0

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.

A9 Information gathering (including, but not limited to, literature surveys, inventories, audits), data analysis (including computer modeling), document preparation (such as conceptual design or feasibility studies, analytical energy supply and demand studies), and dissemination (including, but not limited to, document mailings, publication, and distribution; and classroom training and informational programs), but not including site characterization or environmental monitoring.

Rational for determination:

The City of DeSmet in Kingsbury County, South Dakota is proposing to use ARRA funds provided by DOE to install a 12 ton ground source heat pump (GSHP) heating and cooling system in the DeSmet Firehall that will be constructed in the summer of 2010. DOE funding will be used to purchase and install the necessary equipment to complete this GSHP heating and cooling project. The GSHP system will be a vertical wells, closed loop system. The well field designed for the project will contain 12 boreholes, each 200 feet deep. The well field will be located on a property that is a city working commercial parking lot, therefore, all installation will be performed on previously disturbed land. The City of DeSmet verified that an International Ground Source Heat Pump Association (IGSHPA) certified driller will be used for installation of boreholes. 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 heat exchanger fluid used will be a non-toxic mixture of propylene glycol and potable water which will minimize the risk of contamination from surface water.

The recipient verified that a waste management plan is in place and all waste material generated by this project will be disposed of at a South Dakota Department of Environment and Natural Resources (SDDENR) permitted site in accordance with regulations of the State of South Dakota. Mitigation and erosion control methods will be implemented during construction for protective measures and all fluids in the well field construction will be collected and run through a mechanical mud cleaner. The drinking water supply is provided by the municipality; therefore the drilling of boreholes will not affect public drinking water. The City of DeSmet reviewed maps of underground aquifers and noted that the project location does not exist in a wellhead protection area. A GIS study conducted on the proposed project location using NEPAssist indicated no wetlands in the vicinity of the project location. The U.S. Fish and Wildlife Service lists the threatened/endangered bird species of the whooping crane and piping plover to exist in Kingsbury County. Also, the endangered fish species, Topeka shiner, has been found in Kingsbury County. However, the project location exists in an urban/suburban environment; therefore, there is minimal likelihood that federally endangered or threatened species exist in the proposed area of construction.

After a thorough review of the information submitted for the proposed project, it has been determined that the project will not have a significant impact to human health and /or the environment. Therefore the proposed project is hereby Categorically Excluded under A9 "information gathering, analysis, documentation, dissemination, and training," and 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 :

None Given.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 4/20/10

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