PMC-EF2a

(2.04.02)

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

RECIPIENT: City of Philadelphia, PA **STATE:** PA

PROJECT TITLE : Philadelphia (PA): NovaThermal Energy - Waste Heat Geothermal Pilot Demonstration -- EECBG - ARRA

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000013	EE0000927	GFO-0000927-003	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 City of Philadelphia proposes to use $150,000 of EECBG money to fund a portion of the installation and equipment costs required to install a small, demonstration scale waste heat geothermal system at the Philadelphia Water Department's (PWD) Southeast Wastewater Treatment Plant. This application will serve as a small scale pilot project for the benefits of waste heat geothermal systems.

The proposed heat pump will be located within the exsiting footprint for PWD Southeast Wastewater Treatment Plant which is an approximately 20,000 sq ft Compressor Building. This is the City of Philadelphia's smallest and newest water pollution control facility with a normal operation of up to 80 million gallons/day. The proposed heat pump is approximately 55 cooling tons and will be located in the building's basement, where it will directly access the adjacent wastewater stream. Construction includes tying into the Compressor Building's heating mains and installing automatic temperature controls to create control bypasses for backup systems. Implementation of this system will save 30% to 60% in building heating and cooling costs.

No changes to the building footprint will be required for this operation and the proposed heat pump will not have any impacts on small particulates or ozone.

There would be no or negligible impacts to biological resources, cultural resources, wetlands, or other sensitive resources as all proposed work is set to take place within a recenlty constructed, existing Compressor Building.

No building or other permits will be required with the installation of this proposed project.

Based on the presented information this project is Categorically Excluded from further NEPA review under CX number B 5.1, 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 :

Completed by Bill Knapp

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 12/14/10

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