PMC-EF2a
(2.04.02)

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

RECIPIENT: Govornor's Energy Office **STATE:** CO

PROJECT TITLE: COLORADO SEP ARRA - Commercial Buildings - Denver Housing Authority

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000052	DE-EE0000082	GFO-0000082-011	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 Denver Housing Authority proposes to install a 71 ton vertical closed loop ground source heat pump system. The GSHP system will consist of 36 boreholes drilled to a depth of 440 feet with borehole spacing of 20 feet. The well field will be installed within the 0.4 acre site for the new South Lincoln Redevelopment Senior/Disabled High-Rise Transit-Oriented Development at 1099 Osage Street, Denver, CO, for which the system will provide heating and cooling. The site, which is currently vacant, is part of the existing South Lincoln Homes public housing development, which takes up the majority of the 17.5 acre parcel. The GSHP system will be installed in what will later be a parking area and landscaping. The site is adjacent to an existing light rail station. The system fluid will be a mixture of potable water and 10% methanol. A test borehole was drilled in Fall 2010 to ensure that soils were conducive.

The recipient maintains that no wetlands or floodplains will be affected by the installation, and the area is not within a coastal zone. Reviewing the project area using EPA's NEPAssist tool, the reviewer agrees that there are no wetlands or floodplains present, and the area is not in a coastal zone. Environmental reviews were completed and clearances obtained from the City of Denver and HUD.

The system will be designed and installed by a company specializing in geothermal installation that is state licensed/certified, Rocky Mountain Geothermal. Installation will be in accordance with IGSHPA requirements. Erosion controls will be in place during the installation. The project will comply with all applicable state, federal, and local laws, ordinances, and regulations, and all required licenses, permits, etc., will be obtained, including an MEP permit (typical for all plumbing/electrical/mechanical work) through the City of Denver and a Stormwater permit and management plan, overseen by the CO Department of Public Health and Environment.

The design drawings indicate that: All ground heat exchanger work shall be installed only by an IGSHPA certified contractor, and the contractor shall maintain copies of certifications on file at the job site during construction. All installation will conform to all standards and procedures set forth by the IGSHPA and local governing agencies. All HDPE piping connections shall be fused by a qualified IGSHPA contractor.
Supporting documentation includes:

1) HPG grant application.1099 Osage.6.14.10.final - grant application from the DHA to the CO Governor's Office for a High Performance Design (HPD) grant

2) HUD Clearance.pdf - letter from U.S. Dept. of Housing and Urban Development showing they have issued a Finding of No Significant Impact and an Environmental Clearance to Release Funds and providing contact information for HUD's Field Environmental Officer

3) RoFRequest.pdf - request for Release of Funds and Certification from HUD

4) Environmental Assessment.pdf - environmental assessment done for the site of the housing development

5) Environmental Review Record.pdf - determination of categorical exclusion from the Office of Economic Development

6) GSHP Open and Closed Loop Heat Pump Questions 12 7 10.pdf; GES - 100% CDs-M7.00.pdf; GES - 100% CDs-M7.01.pdf; GES - 100% CDs-M7.02.pdf - provides location and design details for GSHP system.

Through a review of the above information, it can be determined that the proposed project will not have a significant impact to human health and/or environment. Therefore the proposed project is hereby Categorically Excluded from further NEPA review under 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:

Insert the following language in the award:

You are required to:
If drilling is to occur in a potable water aquifer, drilling fluids and grout must meet the requirements of NSF/ANSI International Standards 60-1988.

In the performance of work in all program areas, grantees will be required to comply with all applicable federal, state, and local laws, regulations and standards. If a grantee proposes work that may affect an historic property or archaeological resource listed in or determined to be eligible for the National Register of Historic Places, the grantee will be required to comply with the requirements of Section 106 of the National Historic Preservation Act.

Note to Specialist :

EF2a prepared by Melissa Pauley 12/10/10.

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