PMC-EF2a
(2.06.02)

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

RECIPIENT: Illinois Department of Military Affairs **STATE:** IL

PROJECT TITLE : Geothermal Retrofit of ILARNG HQ Building

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000116	DE-EE0003002	GFO-10-224	GO3002

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:

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.

B3.1 Onsite and offsite site characterization and environmental monitoring, including siting, construction (or modification), operation, and dismantlement or closing (abandonment) of characterization and monitoring devices and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis. Activities covered include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. Specific activities include, but are not limited to:

Rational for determination:

This determination is limited to Phase 1 and Phase 2; Tasks 1 & 2 (Permitting and Bidding). Subtask 1.3 consists of drilling test wells into an abandoned mine shaft with the intention of conducting feasibility testing using water within the flooded mine shaft as a heat exchange fluid. All tasks and sub tasks under Phase 1 involve feasibility studies, information-gathering and documentation activities that will be conducted at the Illinois National Guard State Headquarter Building. The testing may require up to 8 wells to be drilled in a contiguous area to the headquarters building on the Illinois National Guard Base. DOE conducted a GIS study using NEPAssist and it was determined that the area has no wetlands, floodplains, and/or coastal areas located within .5 miles of the base. Because of the 50% chance of missing the shaft entirely due to the column support structures that account for 50% of the area in the mine; multiple test wells may be required however a minimum of 2 may be sufficient (1 Production, 1 Injection). Another issue with the system may be that the test well enters a location where the water is stagnate and the ability to use the water as a means to disperse the amount of heat needed to service the headquarters building may be insufficient. If this is determined through the feasibility studies TBD, then the project will not move forward and a NO GO decision will be made regarding project implementation.

In regards to the test wells to be drilled on the National Guard Base; the following steps will be taken to mitigate the risk of surface or sub-surface contamination. The applicant will file for all applicable well permits required for test well drilling, before any test well is installed and that all stipulations within the issued permit will be followed as stated within the permit. The Department of Military Affairs who is responsible for the project has an environmental department within the Department and they will be responsible for obtaining all permits and overseeing project operations on the base. The environmental team has extensive experience with mining operations, and they have recently completed a NEPA document for a 2,000 acre training site in Sparta Illinois which was a reclaimed surface mine with subsurface contamination issues. The Project will comply with Title 35 of the Illinois Administrative Code outlines the Pollution Control Board general provisions. Its provisions govern and will be followed, especially those outlined in the following sections:

Subtitle C: Water Pollution
Subtitle D: Mine Related Water Pollution
Subtitle G: Waste Disposal; Subchapter D: Underground Injection Control and Underground Storage Tank Programs
Other sections that may apply and if applicable will be followed.

This determination includes conceptual design but does not include final design. DOE will require further NEPA review before funding for final design and project implementation can be provided.

It is important for the project to proceed with Subtask 1.3 (Mine Data). This subtask will provide important project information and will allow DOE to determine the technical and environmental feasibility of the project. In the case that the project is determined to be feasible the test wells drilled in Phase 1 will dictate all engineering and siting

information needed in order for a NEPA determination to be made for Phase 2; Task 3 & 4.
This information gathering presents no environmental impact and therefore this task is Categorically Excluded under CX A9 "Information Gathering" and CX A11 "technical advice" from further NEPA review. The collection of water samples and conventional laboratory testing of samples collected presents no environmental impact and therefore this sub task is categorically excluded from further NEPA review under CX Category B3.1c. The drilling of a test well is determined to have no significant impact to human health and/or environment and is hereby Categorically Excluded from further NEPA review under B3.1 "Environmental Monitoring and Site Characterization".

NEPA PROVISION

DOE has made a conditional NEPA determination for this award, and funding for certain tasks under this award is contingent upon the final NEPA determination.

Insert the following language in the award:

You are restricted from taking any action using federal funds, which would have an adverse affect on the environment or limit the choice of reasonable alternatives prior to DOE/NNSA providing either a NEPA clearance or a final NEPA decision regarding the project.

Prohibited actions include:
Phase 2; Task 3 (Construction) and Task 4 (Commissioning)

Any Demolition, Construction, and/or Installation related to the proposed project. Excluding activities related to the test wells.
This restriction does not preclude you from:
Phase 1 and Phase 2; Task 1 & 2 (Bidding & Permitting)

All other actions which involve 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).
If you move forward with activities that are not authorized for federal funding by the DOE Contracting Officer in advance of the final NEPA decision, you are doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share.

Note to Specialist :

None Given.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 4/1/10
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