PMC-EF2a

(2.06.02)

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

RECIPIENT: Geothermal Expandables, LLC **STATE:** CO

PROJECT TITLE : Development and Demonstration of Self-Expanding Well Construction Technology, Effecting Step-Change Reductions in Geothermal Well Cost and Increased Productivity

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000522	DE-EE-0005506	GFO-0005506-001	EE5506

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, analysis, and dissemination

Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.)

B3.6 Small-scale research and development, laboratory operations, and pilot projects

Siting, construction, modification, operation, and decommissioning of facilities for smallscale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment.

Rational for determination:

Geothermal Expandables, LLC (GExp) would utilize DOE and cost share funds to develop geothermal-specific drilling technology for drilling, completing, producing geothermal wells. Laboratory activities would take place in the Sandia National Laboratory in Albuquerque, New Mexico. Manufacturing activities would take place at the GExp manufacturing facility (6102 Brittmoore Road, Suite E, Houston, TX 77077).

This project includes two Phases but this NEPA review is for Phase I only. Prior to initiating Phase II activities, there would be a go/no-go decision point after which DOE would determine whether or not to fund Phase II activities. Additional NEPA review will be required if this project is selected to continue with Phase II activities.

Phase I: Proof of Concept Stage – Specification and Preliminary Design Phase
1. Product Specifications and Design Objectives Development
2. Materials Study and Sourcing
3. Drawing Packages
4. Analytical Refinement/Engineering Design Models
5. Manufacturing Development and Fabrication of Short Length Functioning Test Specimens
6. Physical, Thermal Laboratory Test Program, and Reporting

Phase II will require additional NEPA review if the project is selected to continue with Phase II activities.

There is no fieldwork associated with Phase 1 of this project.

According to the R&D laboratory questionnaire (for work to be completed at the Atlas Lab), no permits are needed and there would be no liquid effluents or toxic substances produced from Phase 1 activities; Safety Operating and Chemical Hygiene Plans (incompliance with OSHA and industry standards) are in place.

Phase 1 Budget: $ 786,204 (DOE); $ 196,551 (cost share)

Phase 1 of this project is comprised of information gathering, analysis, and dissemination; and laboratory operations; therefore the DOE has categorized this into Categorical Exclusions A9 and B3.6.

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 II
This restriction does not preclude you from:
Phase I
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 :

EF2A prepared by Christopher Carusona II

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 11/30/2011
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