

PMC-EF2a

(20102)

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



RECIPIENT: University of Alaska Fairbanks

STATE: AK

PROJECT TITLE : Validation of Innovative Techniques - Pilgrim Hot Spings, Alaska

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000109	DE-EE0002846	GFO-10-310	EE2846

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:

- 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:
- 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.
- B3.7** Siting, construction, and operation of new infill exploratory and experimental (test) oil, gas, and geothermal wells, which are to be drilled in a geological formation that has existing operating wells.
- B5.12** Workover (operations to restore production, such as deepening, plugging back, pulling and resetting lines, and squeeze cementing) of an existing oil, gas, or geothermal well to restore production when workover operations will be restricted to the existing wellpad and not involve any new site preparation or earth work that would adversely affect adjacent habitat.

Rational for determination:

The University of Alaska Fairbanks (UAF) would use remote sensing and geophysical techniques to develop a preliminary conceptual model of the Pilgrim Hot Springs geothermal resource, and confirm this model through drilling two confirmation slim holes. Project work would take place on private property at Pilgrim Hot Springs located on the Seward Peninsula approximately 50 miles north of Nome, Alaska.

The project is divided into three phases with multiple tasks:

Phase 1: Innovative remote sensing techniques

Task 1.1) Satellite-Based Geothermal Anomaly Mapping

Task 1.2) Airborne FLIR Surveys

Task 2.1) Conduct a Shallow Temperature Survey

Task 2.2) Conduct a Resistivity Survey

Phase 2: Drilling and Collection of New Data from Existing Holes and Data Synthesis

Task 2.3) Repair Existing Wellheads and Collect New Data

Task 2.4) Synthesis of New and Old Datasets and Development of a Conceptual Model into locate Task 3 Gradient and Confirmation Holes

Stagegate Decision Point after completion of Task 2.

A stagegate decision would be made prior to Task 3 based upon the sufficiency of remote sensing and ground-based data in the identification of potential geothermal resources and the selection of well targets.

Since the locations of the temperature gradient (TG) holes and confirmation wells have not been determined, Task 3 cannot be analyzed at this time. Another NEPA analysis would be completed as soon as the applicant has identified the locations of the confirmation wells and TG holes.

Task 3) New Drilling Program

Task 3.1) Gradient Hole Drilling Program

Go/No-Go Decision Point after completion of Task 3.1

Task 3.2) Confirmation Hole Drilling Program

Phase 3: Well Testing and Numerical Modeling

Task 3.3) Well Testing

Task 4.0) Numerical Modeling

Task 5.0) Project Management and Reporting – Reports and other deliverables would be provided in accordance with the Federal Assistance Reporting Checklist following the instructions included therein.

Condition of Approval: Allowable – Tasks 1.1 through 2.4 and 4 through 5; Prohibited – Tasks 3.

This project comprises of restoring production of existing geothermal wells using various techniques while gathering data, making evaluations, geologic mapping, geothermal well workover operations, and well sampling and monitoring, therefore this project is categorized into CX A9, B3.1, B3.7, and B5.12.

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:

Tasks 3

This restriction does not preclude you from:

Tasks 1.1 through 2.4 and 4 through 5

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 :

This EF2A was written by Christopher Carusona. This project involves tasks which are unallowable prior to further environmental analysis. NEPA requests that this project be placed on ASAP Approval.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:

Robert R. Sweeney
NEPA Compliance Officer

Date:

9/14/10

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:

Field Office Manager

Date:
