

PMC-EF2a

(2.0 (02)

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



RECIPIENT:Utah State University

STATE: ID

PROJECT TITLE : The Snake River Geothermal Drilling Project – Innovative Approaches to Geothermal Exploration

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000109	DE-EE0002848	GFO-10-446-001	GO2848

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:

- B3.7** 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.
- 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.

Rational for determination:

Utah State University (USU) proposes to use DOE and cost share funding to develop and demonstrate geothermal resource in the Snake River Plain near Twin Falls, Idaho. In Phase I (Field and Geophysical Studies), USU characterized the initial state of the reservoir, obtained the baseline data required to develop, and characterize the geothermal resource that was analyzed under GFO-10-446 June 17, 2010. At this time, the DOE is now evaluating Phase II (Drill 3 Slim-hole Exploratory Wells) and Phase III (Data-Collection, Analysis, and Reporting) in this NEPA determination. This review is specific to Phase II and III only.

PHASE 1 – Field and Geophysical Studies

Task 1 – Permitting and Environmental Review

Task 2 – Field studies and data compilation

Task 3 – Potential field studies across the Snake River Plain for regional geophysical framework

Task 4 – Seismic reflection imaging

Task 5 – Report – Compilation, Analysis, and Recommendations

A Cultural Resource & Biological Survey of Two Geothermal Drill Sites, Lincoln & Twin Falls Counties, Idaho (completed August 9, 2019) indicates no effect to threatened or endangered species or significant cultural resources. The Mountain Home U.S. Air Force (USAF) completed a Categorical Exclusion A2.3.25 for the third well on the Air Force Base that shows no effect to threatened or endangered species or significant cultural resources.
Go/NoGo review

Phase II and III are analyzed in this review.

PHASE 2: Slim-hole Exploratory Wells

Task 6.1 – Hotspot Hole #1 Kimama

Go/no-go decision point

Task 6.2 – Hotspot Hole #2 Kimberly

Go/no-go decision point

Task 6.3 – Hotspot Hole #3 Mountain Home AFB

Task 7 – Borehole Wireline Geophysical Logging

Task 8 – Vertical Seismic Profiles (VSP)

PHASE 3: Data-Collection, Analysis, and Reporting

Task 9 – Low-temperature and Hydrothermal Alteration

Task 10 – Hydrologic Studies

Task 11 – Fracture Analysis

Task 12 – Project Management and Reporting

Tasks identified in the Statement of Project Objectives (SOPO) submitted to the DOE were compared to what was analyzed in the CX completed by the USAF to determine if those authorize those tasks (drilling geothermal gradient well Hotspot Hole #3) on USAF property. Potential surface disturbing activities identified in the SOPO (temperature gradient, exploration, and geophysical survey) were analyzed in the USAF CX. One of the three exploration wells by the USAF were identified in the CX and analyzed (on record in the PMC). Based upon the comparison of the SOPO to the CX, it has been determined that the CX sufficiently analyzes the environmental impacts of the tasks identified in the SOPO for one of the three wells, therefore the DOE is in agreement with USAF' CX. The other two of the three are analyzed above.

Condition of Approval: All conditions of approval identified in the US Air Force Categorical Exclusion A2.3.25 signed June 3, 2010 are applicable to geothermal well: Hotspot Hole #3 Mountain Home Air Force Base. This proposal comprises actions identified in US Air Force Categorical Exclusion signed June 3, 2010 located in the PMC. Additionally, CX A9, and B3.7 can be used for collecting well data and construction of experimental geothermal wells.

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:
All conditions of approval identified in the US Air Force Categorical Exclusion A2.3.25 signed June 3, 2010 are applicable to this proposal for geothermal well: Hotspot Hole #3 Mountain Air Force Base

Note to Specialist :

None Given.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:  Date: 8/17/10
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