

PMC-EF2a

(20102)

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



RECIPIENT: Nevada Geothermal Power Company

STATE: NV

PROJECT TITLE : Pumpnickel Valley: Sub-soil Gas and Fluid Inclusion Exploration and Slim Well Drilling

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DOE-FOA_0000109	DE-EE0002834.002	GFO-0002834-002	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:

- 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:
- B3.6** Siting, construction (or modification), operation, and decommissioning of facilities for indoor bench-scale research projects and conventional laboratory operations (for example, preparation of chemical standards and sample analysis); small-scale research and development projects; and small-scale pilot projects (generally less than two years) conducted to verify a concept before demonstration actions. Construction (or modification) will be within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible).

Rational for determination:

Nevada Geothermal Power Co. (NGP) would apply highly detailed, precise, low cost subsoil and down-hole gas geochemistry methods from the oil and gas industry to identify two upflow zone slim hole drilling targets in an undeveloped geothermal prospect at Pumpnickel Valley, Nevada.

Phase 1 – Exploration Geochemistry

- 1.0 Perform Biological and Cultural Resource Surveys and Obtain Permits
- 2.0 Sub-soil Gas Survey
- 2.1 Perform 2 m probe chemical survey over thermal anomaly – This task requires an approved Notice of Intent (NOI) from the Bureau of Land Management (BLM)
- 2.2 Analyze hydrocarbons, isotopes, and gas samples
- 2.3 Interpret chemical distributions
- 3.0 Target deep slim holes

As the locations of the two slim hole wells have yet to be determined, Phase 2 (Tasks 4.0 through 10.0) of the project cannot be analyzed at this time. All Phase 2 activities (except Task 11.0 Project Management and Reporting) are subject to additional NEPA review prior to DOE authorizing funding.

Phase 2 – Drilling

- 4.0 Upgrade roads and build well locations
- 5.0 Drill a deep slim hole
- 6.0 Test well; collect and analyze fluids and cuttings from slim hole
- 6.1 Fluid Inclusion Stratigraphy
- 6.2 Gas, liquid, and isotope analyses
- 7.0 Geochemical Re-interpretation
- 8.0 Re-evaluate second drill target
- 9.0 Drill second deep slim hole
- 10.0 Test well (s); collect and analyze fluids and cuttings from slim hole
- Task 11.0 Project Management and Reporting

This NEPA determination applies to Phase 1 and Task 11.0 only. Further, Phase 1 - Task 2.1 is contingent upon receiving the NOI from the BLM prior to DOE authorizing funding.

Phase 1 and Phase 2 (Task 11.0) of this project are comprised of information gathering, data analysis, document preparation; onsite site characterization activities; and conventional laboratory operations; therefore the DOE has categorized this proposal into Categorical Exclusions A9, B3.1, and B3.6.

Note: Prior to this NEPA determination, a Limited Release of Funds was authorized via STRIPES req 10EE003281 under a Blanket CX.

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 - Tasks 4.0 through 10.0

This restriction does not preclude you from:

Phase 1 - all tasks. However, Task 2.1 is contingent upon an approved NOI from BLM.

Phase 2 - Task 11.0 only

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.

Insert the following language in the award:

You are required to:

For Task 2.1 (2m probe chemical survey over thermal anomaly), the recipient must obtain and submit to the DOE Project Officer, an approved NOI for this activity from BLM.

Note to Specialist :

EF2a prepared by Casey Strickland

Total project funds: \$1,597,847 (DOE)

Funds released by the Blanket CX noted above: \$150,000 (DOE)

Funds released by this NEPA determination: \$350,000 (DOE)

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:  Date: 6/28/2011
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