

PMC-EF2a

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



RECIPIENT: Nevada Geothermal Power Company

STATE: OR

PROJECT TITLE : Crump Geyser – High Precision Geophysics and Detailed Structural Exploration and Slim Well Drilling.

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DOE-FOA_0000109	DE-EE0002835	GFO-0002835-003	2835

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:
- B3.7** 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.

Rational for determination:

Nevada Geothermal Power Company (NGP) would demonstrate the potential Crump Geyser geothermal resources in Southern Oregon by gathering data on the geothermal system. Phase 1 (Tasks 1.0, 2.0, and 4.0) of this project was previously approved by GFO-10-164 on February 8, 2010 with a CX A9 and B3.1. Additional information was submitted in regards to Phase 1 (Task 3.0), with a resultant approval by GFO-10-164.001 on August 27, 2010 of Phase 1 (Task 3.0) and Phase 3 (Task 14.0) with a CX A9 and B3.1. Subsequent to that NEPA approval, NGP submitted additional information and a new Statement of Project Objectives (SOPO) which modified the tasks to be completed in Phase 2. This NEPA determination is specific to Phase 2 and Phase 3 of the present SOPO.

Phase 1 – Exploration Geophysics (previously approved by GFO-10-164 and GFO-10-164.001)

Phase 2 – Drilling

6.0 Slim Well Drilling: Two slim wells would be drilled to approximately 2500 feet using the sump-less drilling method to limit the well footprint

Phase 3 – Testing

7.0 Set up flow test equipment

8.0 Flowing Differential Self-Potential (FDSP) Survey phase 1 – This survey utilizes an electrode network to measure the distribution of natural electrical potential across the area of the shallow aquifer near the wells.

9.0 Operate flow tests

10.0 FDSP Survey phases 2 and 3 (while well is flowing)

11.0 Resistivity Tomography – utilizes the same electrode network used for the FDSP Survey

12.0 Interpret results of flow test and Differential SP

13.0 Project Management and Reporting – This was Task 14 in the previous SOPO and was approved by GFO-10-164.001)

Total DOE funds involved in the project - \$1,764,272

Total remaining DOE funds that will be released by this NEPA determination – \$1,320,759

A wetland determination was completed for the uplands area of the project area where all remaining project work (Phase 2 and Phase 3) would take place. No jurisdictional wetlands were encountered in the study area.

A biological survey was completed for the project area to assess effects to federal and state listed threatened, endangered, or candidate species of plants and animals. Based on this survey, DOE has determined that the project is not likely to affect endangered or threatened species.

A cultural survey based on an Area of Potential Effect (APE) map submitted to and approved by both DOE and

Oregon SHPO was completed for the project area. In a letter dated December 27, 2010, Oregon SHPO concurred with DOE on a finding "that the project will have no effect on any known cultural resources as long as all sites can be avoided." NGP has committed to avoidance of all cultural sites by maintaining at least a 30 meter buffer, in which no project activities would take place, around all identified sites. If during development activities NGP encounters any cultural material (i.e. historic or prehistoric), all activities should cease in the vicinity of the discovery immediately. NGP must inform the DOE Project Officer of the discovery and an archaeologist should be contacted to evaluate the discovery.

Based upon the information provided and the surveys completed, Phase 2 (all tasks) and Phase 3 (Tasks 7.0 through 12.0) are categorically excluded under CX A9 "Information gathering/data analysis/document preparation/dissemination", CX B3.1 "Site characterization/environmental monitoring" and CX B3.7 "Siting/construction/operation of new infill exploratory, experimental oil/gas/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:

NGP must avoid cultural sites by maintaining at least a 30 meter buffer, in which no project activities would take place, around all identified sites. If during development activities NGP encounters any cultural material (i.e. historic or prehistoric), all activities should cease in the vicinity of the discovery immediately. NGP must inform the DOE Project Officer of the discovery and an archaeologist should be contacted to evaluate the discovery.

Note to Specialist :

EF2a prepared by Casey Strickland

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:  Date: 6/15/2011
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