PMC-EF2a
(2.04.02)

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

RECIPIENT: Arizona Geological Survey **STATE:** VT

PROJECT TITLE : State Geological Survey Contributions to the National Geothermal Data System

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
2850	DE-EE0002850	GFO-0002850-VT1	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:

B3.1 Site characterization and environmental monitoring
Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) 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). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to: (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing; (b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools); (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; (d) Aquifer and underground reservoir response testing; (e) Installation and operation of ambient air monitoring equipment; (f) Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging of boreholes); (g) Sampling and characterization of water effluents, air emissions, or solid waste streams; (h) Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources); (i) Sampling of flora or fauna; and (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

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:

DOE and cost share funding would be applied to expanding and enhancing the National Geothermal Data System (NGDS) by creating a national, sustainable, distributed, interoperable network of state geological survey-based data providers that will develop, collect, serve, and maintain geothermal-relevant data that operates as an integral compliant component of NGDS. Arizona Geological Survey (AZGS) would bring data from the State Geological Surveys into the NGDS, by digitizing at-risk legacy, geothermal-relevant data (paper records, samples, etc), publishing existing digital data using standard NGDS data services, and through limited collection of new data in areas lacking critical information.

All tasks within the SOPO were categorically excluded under CX A9 by GFO-10-085 on April 16, 2010 because they all concerned the gathering, analysis, and dissemination of data via reports, publications, and the development of computer software and web-based programming. However, subsequent to that NEPA determination, additional funding was added into the award which provided the opportunity for various state geological surveys (acting as subcontractors to this award) to expand the scope of Subtask 2.4 to include collection of new data by field work, drilling of investigation wells, etc. States which expand Subtask 2.4 to include any of these activities will require additional NEPA analysis of Subtask 2.4 because field activities fall outside of the CX A9 from the original determination. All other tasks and subtasks (with the exception of Subtask 2.4) remain covered by the original NEPA determination (GFO-10-085). The original SOPO has been modified to distinguish between the states participating in the expansion of Subtask 2.4 to facilitate the multiple NEPA reviews that will be necessary for this award. This NEPA determination is specific to the Vermont Geological Survey (VGS).

Subtask 2.4 (l) – Collection of New Data – Vermont
VGS would collect and analyze water well temperature data, and rock samples for radioactive heat production and thermal conductivity data. Temperature gradient data would be collected from 40 existing water wells throughout Vermont. Rock samples would be collected in conjunction with temperature data at 25 existing sites for thermal conductivity lab analysis. In addition to already existing data, 15 rock samples distributed throughout Vermont would be collected for radioactive heat production analysis. Rock samples would be collected from outcrops exposed at the surface. Most sample sites are accessible by road, but would be accessed on foot when off developed roads; no-off road vehicles would be used. Samples would be analyzed for thermal conductivity and radioactivity data at either ThermTest, Inc or at the SMU Geothermal Laboratory.

Budget for this task: DOE $78,870 Cost Share $0

Based upon the information provided, the expanded Subtask 2.4 for VGS is composed of site characterization and environmental monitoring; and laboratory operations; therefore the DOE has categorized this into Categorical Exclusions B3.1 and B3.6.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Note to Specialist :

EF2a prepared by Casey Strickland

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 2/10/2012
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