

PMC-ND

(1.08.09.13)

**U.S. DEPARTMENT OF ENERGY
OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY
NEPA DETERMINATION**

**RECIPIENT:** DOD - US Army Garrison at Fort Bliss**STATE:** TX

PROJECT TITLE: Development of a Geothermal Heating and Cooling District at Fort Bliss' McGregor Range

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0002143	DE-EE0009042	GFO-0009042-001	

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Policy 451.1), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:

Description:

A9 Information gathering, analysis, and dissemination Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.)

A11 Technical advice and assistance to organizations Technical advice and planning assistance to international, national, state, and local organizations.

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.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to the Department of Defense – US Army Garrison at Fort Bliss to complete an updated 3-D hydrogeologic model of the McGregor Range geothermal resource for the purpose of well siting and economic analysis for future drilling. The project would complete precursory work necessary in order to implement a geothermal-powered heating and cooling district at Fort Bliss' McGregor Range. This would include feasibility studies, determining the expected output of a geothermal power plant based on modeling, and developing estimates of capital required to build a geothermal power plant of up to 10 megawatts electrical net output.

Proposed project activities would include computer modeling, data collection, gravity surveys, and reporting. Gravity surveys would be run to collect new data in the proposed location and compiled with existing geothermal datasets to create a revised geothermal system model. Baseline energy usage and cost data at McGregor Range would be updated and verified as well as an audit of thermodynamic performance of existing HVAC systems at key buildings. An economic analysis would be performed on geothermal resources using recently obtained geothermal well flow pump test data and other datasets. A case study of the McGregor Range geothermal project would be designed to provide information to other energy managers in the western United States. The most economically attractive configuration for implementing the heating and cooling system would be identified and assembled into a package of information necessary to prepare for future implementation of power generation and/or geothermal heating/cooling district implementation.

The primary recipient is the Department of Defense US Army Garrison at Fort Bliss. Subrecipients would be Ruby Mountain, Inc and New Mexico Gas Company. Contractors would be the Energy and Geoscience Institute at the University of Utah and the Utah Geological Survey. All participants would assist in administrative support, project coordination, analytical tasks, modeling, and reporting. In addition, gravity data surveys would be performed by Fort Bliss' McGregor Range staff and analyzed by Utah Geological Survey.

There would be no physical modifications of existing facilities. Field work would consist of gravity surveys, which would be performed along existing roads and trails using a portable gravity meter with minimal disturbance to the landscape. There would be no outdoor installation work or changes to the use, mission, or operation of buildings.

Hazards may exist during the fieldwork portion of this project such as unexploded ordinances and encounters with wildlife. All personnel entering the field would be required to receive unexploded ordinance training provided by Fort Bliss.

This project is also subject to NEPA review by the Department of Defense/Fort Bliss. This would include completing an environmental review for the project including any necessary consultations and geotechnical or other surveys prior to a decision whether to proceed. If the Department of Defense proceeds with the proposed project after their NEPA review, they would be required to obtain all necessary permits and follow appropriate environment, health and safety measures. The Department of Defense must provide its final NEPA determination(s) to their DOE FEMP Technical Project Officer or point of contact. This DOE grant would be a secondary funding source for this project and would comprise approximately 20% of total project funding.

NEPA PROVISION

DOE has made a final NEPA determination.

Include the following condition in the financial assistance agreement:

The Recipient is a Federal agency and is also required to comply with NEPA. When the Recipient has completed its NEPA review process for the proposed project, the Recipient will provide its final NEPA determination(s) to their DOE FEMP Technical Project Officer or point of contact.

FOR CATEGORICAL EXCLUSION DETERMINATIONS

The proposed action (or the part of the proposal defined in the Rationale above) fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D. To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposal.

The proposed action has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

The proposed action is categorically excluded from further NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:  _____ Date: 12/31/2020
NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION

- Field Office Manager review not required
- Field Office Manager review required

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____ Date: _____
Field Office Manager