

PMC-EF2a

(2.04.02)

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



RECIPIENT: The Pennsylvania State University

STATE: PA

PROJECT TITLE : THMC Modeling of EGS Reservoirs – Continuum through Discontinuum Representations: Capturing Reservoir Stimulation, Evolution and Induced Seismicity

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-EE0000075	DE-EE0002761	GFO-10-080	GO2761

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.

Rational for determination:

Pennsylvania State University would develop computation models to describe the stimulation and projection phases of Enhanced Geothermal System (EGS) reservoirs and complete analysis relevant to current and future demonstration projects. The study would develop coupled Thermal-Hydrological-Mechanical-Chemical (THMC) models capable of accommodating (i) static and dynamic rupture and failure in discontinuous fractured reservoirs (ii) where the full quadruplet of THMC interactions is rigorously accommodated.

Project tasks include the following:

*Developing, updating and running models

*Present a course combining Graduate-undergraduate Education in Sustainable Subsurface Energy Recovery (GEYSER).

This project is comprised of information gathering, data analysis, document preparation, and dissemination; therefore the DOE has categorized this proposal into Categorical Exclusion A9.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

None Given.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:



 NEPA Compliance Officer

Date:

3/29/10

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

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