

PMC-EF2a

(2.0 (02))

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

**RECIPIENT:** University of Colorado**STATE:** CO

PROJECT TITLE : Using Solid Particles as Heat Transfer Fluid for Use in Concentrating Solar Power (CSP) Plants

Funding Opportunity Announcement Number
DE-FOA-0000654

Procurement Instrument Number
DE-EE0005954

NEPA Control Number
GFO-0005954-001

CID Number

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, 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.)

Rational for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to the University of Colorado, in partnership with the National Renewable Energy Laboratory (NREL), to conduct computer based modeling that advances concentrated solar power (CSP) thermal systems. DOE funding would be used for computer based modeling to develop, verify and validate a first-principle modeling tool for use in the optimization, scale-up, and design of a near-blackbody receiver.

Work would be completed in three Budget Periods:

Budget Period I:

- Task 1: Model Verification/Validation for Non-Radiative Heat Transfer
- Task 2: Initial Assessment of MFIX Radiation Model

Budget Period II:

- Task 3: Verification of DEM Radiation Model and Generation of DEM validation data
- Task 4: Implementation, Verification, and Validation of Continuum Radiation Model

Budget Period III:

- Task 5: Simulation of Prototype Particle Receiver with Radiative Heat Transfer

Based on review of the project information and the above analysis, DOE has determined the activities would not have a significant individual or cumulative impact to human health and/or environment. DOE has determined the proposed project is consistent with the actions contained in DOE categorical exclusion A9 "information gathering, analysis, and dissemination," and is categorically excluded from further NEPA review.

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 :

Kelly Daigle 12/4/2012

DOE funding: \$450,000
Total Project Cost: \$450,000

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

NEPA Compliance Officer

Date: _____

12/4/2012

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: _____

Field Office Manager

Date: _____