

PMC-EF2a

(20402)

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



RECIPIENT: The University of Alabama

STATE: AL

PROJECT TITLE : Institute for Sustainable Energy

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
CDP	DE-EE0003134	GFO-10-556	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:

- 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.
- B3.6** Siting, construction (or modification), operation, and decommissioning of facilities for indoor bench-scale research projects and conventional laboratory operations (for example, preparation of chemical standards and sample analysis); small-scale research and development projects; and small-scale pilot projects (generally less than two years) conducted to verify a concept before demonstration actions. Construction (or modification) will be within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible).

## Rational for determination:

DOE is proposing to provide funding to the University of Alabama for the Institute for Sustainable Energy. The institute would utilize the funding to engage in the following three research projects: (1) development of an experimental data base to predict emissions from combustion of alternative fuels; (2) study catalytic partial oxidation of alternative fuels; and (3) investigate low-temperature, fuel flexible combustion using porous inert media.

DOE funds would additionally be used to provide initial capital equipment purchases and travel, material, and supplies costs over the course of the project. Partial funding support would also be provided for personnel working on the project at various stages, and used to support three Ph.D. students and one post-doctoral researcher.

All activities performed under the scope of this project would take place within laboratory settings at the University of Alabama. Lab work would take place at the Combustion Laboratories, Reaction Research Laboratory, or the Internal Combustion Engine Laboratory. An R & D questionnaire has been submitted to thoroughly address chemical and safety handling protocols. Safety is ensured by following internal safety protocols enforced through the University of Alabama Office of Environmental Health and Safety.

Minor amounts of laboratory wastes would be generated in the preparation of solid catalysts. These wastes would be collected, stored, and disposed of in a manner congruent to the existing Chemical Hygiene Plan (CHP) of the research group. Combustion products and any potential air pollutants generated would be discharged through a dedicated exhaust system. No Genetically Modified Organisms (GMOs), prototypes, or subcontractors would be used.

The small scale of the experiments to be performed would keep the concentrations of gaseous products below any emission standard. In addition, administrative procedures, engineering controls (fume hoods) and a chemical hygiene plan addressing work with flammables and toxic gases, personal protection equipment are in place to mitigate any risks encountered during the course of the project. All work performed for this project would be completed in existing laboratory facilities and therefore does not have the potential to adversely affect any environmental conditions.

Activities under this project would involve research, data analysis, information gathering and dissemination, and reporting; therefore a Categorical Exclusion A9 will apply. Additionally, this project is comprised of indoor research and development activities with established safety and health protocols in place; therefore a Categorical Exclusion B3.6 will apply.

**NEPA PROVISION**

Note to Specialist :

Douglas Eichler, 8-19-10

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**

NEPA Compliance Officer Signature:   
NEPA Compliance Officer

Date: 8/23/10

**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: \_\_\_\_\_  
Field Office Manager

Date: \_\_\_\_\_



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2.04.02

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**NEPA PROVISION**

DOE has made a final NEPA determination for this award