

PMC-EF2a

(2.0402)

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



RECIPIENT:Auburn University

STATE: AL

PROJECT TITLE : Biomass to Liquid Fuels and Electric Power Research

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
CDP	DE-EE0003115	GFO-0003115-001	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:

- B3.6** 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).
- 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:

Auburn University proposes to use federal funding to research and analyze bio-refining systems for improvements within the process to increase productivity and economic value of electric power, liquid fuels, and other bio-based products.

This project will involve five tasks. The first task will be to investigate productivity and economic constraints associated with production, harvest, and transportation of forest biomass. The second task will be to develop and refine techniques for fractionation of forest and agricultural biomass into pure cellulose, hemicelluloses, and lignin components. The third task of this project entails refining fraction methods for conversion of raw biomass to intermediate forms which are more suitable for the global economy. The fourth task of this project will develop and refine process simulation models for biomass gasification and gas conditioning processes for optimization. The fifth task of this project will validate models of Fischer-Tropsch processes for downstream biomass gasification systems.

This project will utilize current laboratory space within the Auburn University Forest Products Laboratory, located on the campus of Auburn University. The University has submitted an R & D Questionnaire which thoroughly addresses the chemical and safety handling protocols. This project currently will use a gasifier that the university currently operates on campus.

This project is comprised of analytical studies of the bio-refining process. The project has been determined to be categorically excluded as A9 & B3.6 for computer modeling, information gathering, and indoor laboratory research and development activities.

NEPA PROVISION

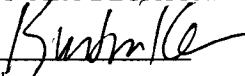
DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

Eugene Brown 2/14/2011

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Kristin Kerwin  Date: 2/16/2011
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