

PMC-EF2a

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



RECIPIENT: Georgia Institute of Technology

STATE: GA

PROJECT TITLE : Southern Pine Based Biorefinery Center

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
CDP	EE0003144	GFO-10-552	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:

The Georgia Tech Research Corporation proposes to use DOE funds to develop on the GA Tech campus an integrated southern pine wood to biofuels/biomaterials processing facility that will test advanced integrated wood processing technologies at the laboratory scale, including:

- The generation of bioethanol from pine residues and hemicelluloses extracted from pine woodchips;
- The conversion of extracted woodchips to linerboard and bleach grade pulps; and
- The efficient conversion of pine residues, bark and kraft cooking liquor into a useful pyrolysis oil.

No new construction or construction permits would be required for this project, the proposed processing facility will be located within existing buildings on the GA Tech campus.

The primary location of the proposed research activities will be accomplished at Institute of Paper Science and Technology Building at Georgia Institute of Technology, 500 10th St., NW, Atlanta, GA, 30332-0620. The research program outlined in this proposal will be executed in the modern research facilities that are fully equipped to perform modern biomass chemistry/biochemistry studies. The laboratories are equipped with the required chromatographic equipment, fume hoods, constant temperature water baths, refrigerators, and other items needed for the efficient execution of this research proposal. Research facilities include complete laboratory capabilities to simulate conventional, and extended treatment of woody biomass and oxidative treatments. Fiber testing protocols include single fiber testing, kajaani fiber length analyzer, Bauer-McNett Fiber Classifier, and fiber quality Analyzer, and wet fiber conformability. Additional research activities will take place at computing facilities supported by Georgia Tech's School of Chemistry and Biochemistry, the Office of Informational Technology, and the Georgia Tech Nanomaterials Analysis and Characterization Center.

Activities that do not take place in the laboratory may occur in the Georgia Tech computing center. The scope of this project also includes visiting several locations to collect samples of softwood for laboratory analysis. This sampling activity will not create a long-term environmental disturbance at the selected locations.

All research will be conducted on the Georgia Institute of Technology campus which is registered with EPA/EPD as a large quantity generator of hazardous waste (GAD 003321619). No Genetically Modified Organisms (GMO's) will be involved with the listed activities.

This project comprises indoor bench-scale research projects and conventional laboratory operations therefore is categorically excluded from further NEPA review under CX A 9, Information Gathering, and CX B3.6, Siting, construction (or modification), operation, and decommissioning of facilities for indoor bench-scale research projects

and conventional laboratory operations.

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: Kristin Kerwin Date: 8/26/2010
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