

PMC-EF2a

(2.0.02)

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



RECIPIENT:The Research Foundation of SUNY at SUNY ESF

STATE: NY

PROJECT TITLE : The Biorefinery in New York-Bio Butanol from Biomass

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
CDP	DE-EE0003668	gfo-0003668-001	EE0

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 Research Foundation of SUNY at SUNY ESF proposes to use federal funds to develop a technology that will convert wood biomass into butanol. This process will involve the fermentation of Sugar maple wood biomass sugars into a butanol product through hot water extraction. Product will be received from the department of paper and bioprocess engineering facility, where they have been chipped down to size. The wood chips will then undergo chemical transformation through hot water boiling to extract lignin. The lignin will undergo fermentation with *Clostridium Acetobutylicum* for the production of butanol.

This project will include biomass preparation, butanol fermentation, butanol purification, and project management and reporting.

Clostridium Acetobutylicum will be disposed of through autoclave. All work associated with this project will take place in Walters Hall and Jan Hall on the SUNY ESF campus. The applicant has submitted an R & D Questionnaire which thoroughly addresses the schools chemical and safety handling protocols. No GMOs will be used in the implementation of this project and all waste products will be handled in accordance with university protocol.

This project is comprised of information gathering and conventional laboratory bench-scale research; therefore a CX A9 & B3.6 will apply.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

Eugene Brown 2/11/2011

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: Kristin Kerwin  Date: 3/3/2011
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