

PMC-EF2a

(2.04.02)

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



RECIPIENT: Rowan University

STATE: NJ

PROJECT TITLE : Algae to Ethanol Research and Evaluation

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DOE DE-EE0003113	GFO-10-495	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:

Rowan University proposes to use federal funds to conduct a feasibility study to determine the overall effectiveness of the use of hollow fiber membranes for delivery of carbon dioxide for algae growth and to conduct energy. This project will take place at Rowan University for initial studies, and then bench/pilot scale work will take place at Garden State Ethanol Inc and Algaedyne Corporation. Research will be conducted for algae growth studies using membrane technology as well as energy and life cycle assessment studies. The algae for this project will come from a private vendor.

This project will include the identification of algae for the proposed study, conduct tests for delivery of carbon dioxide using hollow fiber membranes, dewatering of harvested algae using membranes, analysis of biofuel life cycle, conduct pilot scale studies at partner facility, and final project reporting.

There will be two sub-recipients that will support the research and conduct pilot scale studies: Algaedyne Corporation & Garden State Ethanol. Algaedyne will be testing the hollow fiber membranes on a pilot scale level, and Garden State Ethanol will be testing various harvesting techniques for algae.

This project will take place indoors within the confines of a laboratory grounds and using existing facilities. An R & D questionnaire has been submitted that thoroughly addresses chemical and safety handling protocols for each facility involved in the project.

This project comprises of conventional research and development in existing laboratory facilities, and information gathering; 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 8/4/2010

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: Kristin Keen
NEPA Compliance Officer

Date: 8/4/2010

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: _____