

PMC-EF2a

(2.04.02)

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



RECIPIENT: Ohio University

STATE: OH

PROJECT TITLE : Ohio Biorefinery Project

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-FG36-08GO88083	GFO-08-181-001	GO88083

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:

The University of Ohio will be conducting research and development and outreach as part of their FY09 Congressionally Directed Project. The project consists of three tasks.

Task 1:

Task 1.1 will be a literature review of non-food based feedstocks for producing biodiesel including various algal development efforts in ponds, raceway cultivators and bioreactors.

Task 1.2 is to further the development of the technology needed to produce algae and to educate students and the public on the need for alternative fuels and on why biodiesel from algae is a viable solution. This research effort, which will only use natural strains, will scale up Ohio University's photobioreactor systems for growing cyanobacteria and green algae. It will be tested with at least three strains for sustained productivities (over at least 14 days) in natural sunlight.

Task 1.3 will consist of collecting the algae from task 1.2 and analyze it for oil content. Should sufficient oil content be produced, it will be converted via transesterification and the biodiesel quality will be measured using ASTM standards. The levels of biodiesel produced will be of laboratory scale.

Task 2:

Task 2.1 will focus on developing a ground for students to learn bioprocessing of many feedstocks (corn, soybeans, algae, etc.) into biofuels. This sub-task will require a training facility at Ohio University (OU)-Lancaster which will be created by converting existing space to a suitable educational laboratory. Several pieces of equipment will be purchased and installed including 10 stainless steel tanks and heating elements, a distillation tower, a vapor recovery system, a centrifuge, 5 ovens and a Far Inferred analysis.

Task 2.2 will focus on training instructors and faculty at Ohio University-Lancaster to teach proper laboratory skills needed to convert biofuels feedstocks to biofuels. This training will be provided by engineering faculty from Ohio University in Athens.

Task 2.3 will focus on teaching students about biofuels. Once the instructors are trained, it is expected that three quarters of instruction will be presented jointly between Ohio University Athens and Lancaster faculty to teach students the fundamentals of making biofuels.

Task 3:

Task 3.1 will focus on attempting to inform people in the region of the uses, availability and benefits of biofuels, as well as inform them of the training and research efforts at the University. This effort will be done in conjunction with Ohio University's Voinovich School for Leadership and Public Affairs and OU-Lancaster.

All tasks include a subtask to manage the project.

This project involves research and development, the modification of existing space for indoor bench-scale research, small scale research for educational purposes, and information dissemination; therefore it qualifies for a CX under A9 and B3.6.

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:



NEPA Compliance Officer

Date:

3/21/10

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:
