PMC-EF2a
(2.04.02)

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

RECIPIENT: The University of Georgia Research Foundation, Inc. **STATE:** GA

PROJECT TITLE : Development of bio-oil commodity fuel as a refinery feedstock from high impact algae biomass

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000686	DE-EE0006067	GFO-0006067-001	EE6067

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, analysis, and dissemination	Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.)
B3.6 Small-scale research and development, laboratory operations, and pilot projects	Siting, construction, modification, operation, and decommissioning of facilities for smallscale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment.

Rational for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to the University of Georgia Research Foundation, Inc. to research and develop algal bio-oil as a refinery feedstock from algae biomass. Funding would be used to generate and convert algal biomass to a bio-oil in a laboratory environment, perform physical and chemical characterizations of the bio-oil, complete process cost modeling and a life cycle assessment to assess the potential environmental impacts and quantify greenhouse gas (GHG) reductions of the bio-oil compared to conventional petroleum fuels. Funding would also be used to disseminate collected information on the bio-oil properties and the developed algal bio-oil to refinery feedstock process to selected oil companies in order to identify a potential refinery partner willing to move the process towards commercialization.

All research and development activities would be performed at the four University of Georgia (UGA) research laboratories within UGA's Bioconversion Center and Driftmier Engineering Center. The laboratories are located on the UGA campus at 210 South Jackson Street, Athens, Georgia.

UGA completed a R&D questionnaire addressing the protocols in place for laboratory safety, risk management, chemical handling and waste disposal at their laboratories. UGA complies with standard laboratory safety procedures and are monitored by the UGA Environmental Safety Division (ESD) and a dedicated laboratory safety manager. All handling and disposal of gases, chemicals, effluents and hazardous waste are subject to campus ESD protocols which comply with all appropriate regulations. All standard safety equipment is in place at all laboratories. The laboratories operate under all applicable permits to conduct laboratory research. The Bioconversion Center is an EPA permitted site for handing and processing solid and liquid wastes. GMOs would not be used during this project.

Based on review of the project information and the above analysis, DOE has determined the proposed algal bio-oil as a refinery feedstock research and development and information gathering, analysis, and dissemination activities would not have a significant individual or cumulative impact to human health and/or environment. DOE has determined the proposed activities are consistent with actions contained in DOE categorical exclusions A9 "information gathering, analysis and dissemination," and B3.6 "small-scale research and development, laboratory operations and pilot projects," and are categorically excluded from further NEPA review.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Note to Specialist :

Obadiah Broughton 12/12/2012

DOE funding: $531,897
Cost share: $132,974
Total Project Cost: $664,871

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: Electronically Signed By: Kristin Kerwin Date: 12/12/2012
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