PMC-EF2a

(2.04.02)

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

**RECIPIENT:** University of Northern Iowa **STATE:** IA

**PROJECT TITLE :** National Agriculture Based Lubricants Center

| Funding Opportunity Announcement Number | Procurement Instrument Number | NEPA Control Number | CID Number |
|---|---|---|---|
| CDP | GO88038 | GFO-GO88038-001 | GO88038 |

**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:

DOE is proposing to provide federal funding to the University of Northern Iowa's (UNI) National Agriculture Based Lubricants Center (NABLC) for basic research, laboratory improvements, (particularly the build-out of an engine test room), and hardware installation, bench-scale bio-lubricant environmental effects studies, and participation in national standard and testing committees and working groups.

The laboratory is located at 360 Westerfield Avenue, Tech1 Level 3, Waterloo, Iowa 50701, an urbanized, near-campus setting. This laboratory consists of administrative offices, testing areas and laboratory space. Tasks under this funding would be conducted under UNI and applicable regulatory agency standard operating procedures and rules. The NABLC has appropriate laboratory safety controls including fume hoods, air exchange system, a gas fire suppression system, fire alarms, eyewash safety shower stations. The NABLC is a permitted small quantity generator, and would install aboveground fuel and chemical storage areas as a portion of this funding, and in accordance with spill prevention, control, and countermeasure requirements. The facility maintains a laboratory exemption from the Iowa air emissions code.

Funding would be applied to the following tasks:

- Selection, purchase, and installation of necessary laboratory equipment
- Investigations of biolubricant testing requirements
- Fundamental bench-scale biolubricant laboratory testing
- Preparation of diesel engines for use in laboratory testing
- Investigations of biogreases from vegetable oil
- Investigations of industrial, non-food crop oil toxicity and environmental impact
- Conduct bench-scale experiments to evaluate biodegradability, toxicity of vegetable oil-based lubricants
- Participation in national standard activities

Additionally, the NABLC proposes to conduct a field test of the continuous oil recirculation system (CORS) diesel engine lubrication system. The experiment would involve installing two CORS lubrication systems on utility company diesel engine generators. Test schedule and location have not been developed, and this activity (listed as Task 8 in the EF2) is not included in this NEPA Determination as described in the NEPA Provision below.

DOE has determined that CX A9 and B3.6 apply to the biolubricant research activities proposed by NABLC, including laboratory build-out and aboveground storage tank and chemical storage facility installation, research and experiments to establish the biodegradability and toxicity of biolubricant compounds, and small-scale laboratory research to further the adoption of these renewable materials. This NEPA determination does not apply to the field

tests of the CORS system.

**NEPA PROVISION**

DOE has made a conditional NEPA determination for this award, and funding for certain tasks under this award is contingent upon the final NEPA determination.

Insert the following language in the award:

You are restricted from taking any action using federal funds, which would have an adverse affect on the environment or limit the choice of reasonable alternatives prior to DOE/NNSA providing either a NEPA clearance or a final NEPA decision regarding the project.

Prohibited actions include:
Task 8: CORS lubrication system field test on 2 utility company diesel engine generators.
This restriction does not preclude you from:
Tasks 1 through 7 and 9 through 11.
If you move forward with activities that are not authorized for federal funding by the DOE Contracting Officer in advance of the final NEPA decision, you are doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share.

Note to Specialist :

John DuWaldt 9.08.2011

DOE Funding: $ $1,554,900
Total Recipient Share for Project = $388,725
Total Project Value = $1,943,625

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**

NEPA Compliance Officer Signature: _____ Date: 9/29/2011
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