

PMC-ND

(1.08.09.13)

**U.S. DEPARTMENT OF ENERGY
OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY
NEPA DETERMINATION**



RECIPIENT: OPX Biotechnologies, Inc.

STATE: CO

PROJECT TITLE: Production of High Performance Lubricants from Cellulosic Sugar

Funding Opportunity Announcement Number

DE-FOA-0000974

Procurement Instrument Number

DE-EE0007007

NEPA Control Number

GFO-0007007-001

CID Number

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 Small-scale research and development, laboratory operations, and pilot projects Siting, construction, modification, operation, and decommissioning of facilities for small scale 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.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to OPX Biotechnologies, Inc. to design, construct and evaluate new and novel microbial biocatalysts that can produce C8 fatty acids and/or C8 fatty acid esters at high specificity from sugars derived from renewable cellulosic feedstocks. The work would employ laboratory-scale biotechnological methods and leverage proprietary metabolic pathways that synthesize fatty acids directly from acetyl-CoA and malonyl-CoA.

The proposed project would involve the use and handling of various live microorganisms, biochemicals and chemicals. Small quantities of hazardous chemicals would be employed. OPX Biotechnologies follows a comprehensive program to ensure compliance with environmental, health and safety guidelines, including protocols for employee training, chemical hygiene, material handling and disposal, emergency response and proper use of personal protective equipment. Work would be done in non-pathogenic E. coli strains following NIH guidelines for recombinant DNA research. All genetically modified organisms would be inactivated prior to disposal. All disposable equipment and materials that come in contact with the genetically modified microorganisms would be collected and disposed of as a separate waste stream using a licensed waste hauler. Genetically modified microorganisms that come in contact with non-disposable laboratory equipment, would be inactivated/killed in situ prior to disposal with such equipment being cleaned and sterilized prior to further use. All laboratories are equipped and all laboratory personnel are trained for properly handling the microorganisms.

Based on review of the project information, DOE has determined that project activities would not have a significant individual or cumulative impact to human health and/or the environment. DOE has determined that these activities are consistent with actions contained in DOE categorical exclusions B3.6 "Small-scale research and development, laboratory operations, and pilot projects," and is 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 :

Bioenergy Technologies Office
This NEPA Determination does not require a tailored NEPA provision.
NEPA review completed by Diana Heyder, 04/16/15

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:  Date: 4/20/2015
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