PMC-EF2a

(2.06.02)

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

RECIPIENT: MI Department of Energy, Labor & Economic Growth **STATE:** MI

PROJECT TITLE : Green Chemistry - CEAM Phase 3 - Working Bug LLC

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000052	DE-EE0000166	GFO-0000166-033	GO0

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:

B5.1 Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.

Rational for determination:

Working Bugs, LLC is proposing to use $248,000 in SEP ARRA funding to design, procure, and install three, 4,000 gallon fermenters, as well as energy optimization equipment for their n-butanol production process. Initially, three, 4,000 gallon fermenters would contribute a minimum of 300 gallons per week to the n-butanol production. This award will enable Working Bugs to purchase and install key equipment to fill in manufacturing gaps and meet a portion of the large-scale equipment needs in their n-butanol manufacturing line. The full production capacity goal is to develop a 7-fermenter line resulting in an n-butanol production capacity of 350 to 1000 gallons per week, depending on the degree of optimization and the manner in which the line is run.

The three fermenters will be placed in an existing facility. No expansion of the existing building footprint will occur as a result of the proposed project. The recipient has provided a chemical hygiene and safety plan. No GMOs are used in the n-butanol production process. Truck traffic increases as a result of the proposed project will be neglible per the attached site plan documentation.

4000-8000 gal of non-hazardous, spent fermentation broth will be disposed of by sanitary sewer per week. The City of East Lansing has been consulted regarding the proposed project and has confirmed that the waste water treatment plant does have adequate capacity for the Working Bugs waste stream (letter attached). Working Bugs has been in contact with the local wastewater treatment plant and tests fluids that it sends to the plant so that temperatures, organic material levels (BOD), and pH fall within the ranges required. No hazardous waste will be disposed of as a result of the proposed project. Other streams are used as co-products and are not wasted.

The proposed project is consistent with activities outlined in B5.1 "actions to conserve energy"; therefore, it 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:

Note to Specialist :

EF2a completed by Logan Sholar

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 2/8/11
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