PMC-EF2a

(20602)

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

RECIPIENT: Air Products and Chemicals, Inc. **STATE:** PA

PROJECT TITLE : Bioelectrochemical Integration of Waste Heat Recovery, Waste-to-Energy Conversion, and Waste-to-Chemical Conversion with Industrial Gas and Chemical Manufacturing Processes

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000560	DE-EE0005750	GFO-0005750-001	GO5750

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 Air Products and Chemicals, Inc. to conduct research and development for bioelectrochemical systems that convert waste water to energy and chemical products for the industrial chemical manufacturing industry.

DOE funding would be used for data collection, initial and detailed treatability tests on prospective samples, development of unit configurations, laboratory analysis of samples, process and modeling, prototype plan development, and the prototype preliminary design and cost estimate. Air Products would partner with Pennsylvania State University (Penn State) to conduct laboratory research and analysis.

Laboratory work would be conducted at Penn State at the Sackett Building, located at 231 Sackett Building, State College, PA 16802. Penn State has completed an R&D questionnaire addressing the protocols for laboratory safety, risk management and waste disposal. The laboratory complies with standard safety procedures and all processes and procedures are monitored by the Penn State Environmental Health and Safety Department (EHS). The University has all applicable permits in place to conduct research on campus. All handling and disposal of gases, chemicals and liquid effluents would be executed by EHS personnel who comply with appropriate regulations of OSHA. Any toxic waste would be handled, stored and disposed of by EHS personnel to a licensed hazardous waste vendor.

At this time Budget Period 3 has not been defined to the extent that DOE can conduct a NEPA review. This NEPA determination does not apply to Budget Period 3 (Tasks 12-16). All tasks in Budget Period 3 are subject to further NEPA review prior to the authorization of federal funds.

DOE has determined that Budget Periods 1 and 2 (Tasks 1 - 11), as proposed, are consistent with actions defined in DOE categorical exclusions A9 "information gathering, analysis and dissemination," and B3.6 "small-scale research and development, laboratory operations and pilot projects."

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:
Budget Period 3: Tasks 12 - 16.
This restriction does not preclude you from:
Tasks 1-11.
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 :

Kelly Daigle 9.18.2012

DOE Share: $1,200,000
Cost Share: $300,000
Total: $1,500,000

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 9/19/2012
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