PMC-EF2a

(2.04.02)

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

RECIPIENT: Mayaterials, INC. **STATE:** MI

PROJECT TITLE : Solar Grade Silicon from Agricultural Byproducts

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-PS36-07GO97025	DE-FG36-08GO18009	GFO-GO18009-001	0

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 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 proposes to provide Federal funding to Mayaterials, Inc. for laboratory scale research extracting solar grade silicon from rice hull ash (RHA). This work would take place at a new Mayaterials facility located at 1665 Highland Drive, Ann Arbor, MI. This location houses two laboratories: a 1700 square foot (sq ft) RHA laboratory and a 750 sq ft analytical/general chemistry laboratory. Funding would be used to purchase analytical laboratory equipment, hardware, and chemicals as well as partial support of five staff.

The research program has five tasks:
Task 1: Agricultural Waste Processing Studies
Task 2: Silica to Silicon Reduction Studies
Task 3: Alternative Furnace and Conversion Technology
Task 4: Project Management and Reporting
Task 5: Down-selection of Final Processing Candidate

Research would produce liquid and gaseous HCL wastes which would be neutralized and/or treated, stored, and disposed in accordance with existing Chemical Hygiene Plan and NFPA 30 code. Below-emission standard CO would be generated during silica reduction and vented via a 2000 cubic feet per minute exhaust system. No GMOs would be used in this project, and appropriate health, safety, and fire inspections have been conducted.

The Department of Energy has determined that the funding request to purchase and install experimental chemistry equipment and conduct research to extract solar grade silicon from RHA is a renewable energy research activity consistent with B3.6 Categorical Exclusion as defined in 10CFR 1021.

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 :

John A. DuWaldt 9.13.2011

DOE Funding: $1,128,799
Total Funding: $1,128,799

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 9/15/2011

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