

PMC-ND
(1.08.09.13)

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



RECIPIENT: Saint-Gobain Ceramics & Plastics, Inc.

STATE: MA

PROJECT TITLE : Advanced Manufacturing Projects for Emerging Research Exploration

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001465	DE-EE0008323	GFO-0008323-001	

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.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to Saint-Gobain Ceramics & Plastics, Inc. (SG) for the design, formulation, and development of highly particulate loaded aqueous inks for simultaneous multilayer roll-to-roll processes that achieve desired layer and inter-layer properties that could help reduce energy consumption in the manufacturing of solid-state electrochemical devices. Results would be validated and a techno-economic analysis would be conducted to evaluate potential impacts on other markets. Project work would occur at SG's Northborough Research and Development Center (NRDC) in Massachusetts and at Oak Ridge National Laboratory in Tennessee.

Project activities would include literature reviews, paper studies, and laboratory scale research work. Activities completed at the NRDC include characterization and formulation of functional inks, casting and drying of inks into functional films on a roll-to-roll pilot coating line, and forming and testing of solid state electrochemical devices from the functional films. Project work would occur in an existing facility designed for this type of work that would utilize standard laboratory equipment; therefore no modifications, new permits, additional licenses and/or authorizations would be necessary. No ground disturbing activities, no changes in operation of existing facilities, and no installation of equipment outdoors would occur for project activities. At the NRDC, the project would involve the use and handling of small quantities of various surfactants and minerals that are considered individually hazardous. For this project, the amount of hazardous materials used at any one time would be less than 1 kilogram. All such handling would occur in-lab utilizing proper hazardous material handling and disposal practices to ensure the project activities would pose no risk to the public. All hazardous materials would be managed in accordance with federal, state, and local environmental regulations. A number of minor lab, chemical, and equipment related hazards would exist associated with the formulation, coating, and forming activities. All such activities are within the scope of the NRDC's normal operations and the facility has an Environmental, Health and Safety (EH&S) infrastructure in place to prevent health, safety and environmental incidents. This infrastructure includes an environmental compliance system, a detailed management of change process for all new processes, and process risk assessments for all lab activities to ensure, at a minimum, that appropriate engineering controls and personal protective equipment are implemented. Non-hazardous wastes would be recycled, if feasible, and non-recyclable waste would be disposed offsite by a licensed third party hauler according to federal, state, and local regulations. Any air emissions would be within operating permits with the State of Massachusetts. DOE does not anticipate any impacts to resources of concern due to the proposed activities of the project.

Any work proposed to be conducted at a DOE laboratory may be subject to additional NEPA review by the cognizant DOE NEPA Compliance Officer for the specific DOE laboratory prior to initiating such work. Further, any work conducted at a DOE laboratory must meet the laboratory's health and safety requirements.

Based on the review of the proposal, DOE has determined the proposal fits within the class of action(s) and the integral elements of Appendix B to Subpart D of 10 CFR 1021 outlined in the DOE categorical exclusion(s) selected above. DOE has also determined that: (1) there are no extraordinary circumstances (as defined by 10 CFR 1021.410 (2)) related to the proposal that may affect the significance of the environmental effects of the proposal; (2) the proposal has not been segmented to meet the definition of a categorical exclusion; and (3) the proposal is not connected to other actions with potentially significant impacts, related to other proposals with cumulatively significant actions, or an improper interim action. This proposal 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 the Recipient intends to make changes to the scope or objective of this project, the Recipient is required to contact the Project Officer, identified in Block 15 of the Assistance Agreement before proceeding. The Recipient must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved. If the Recipient moves forward with activities that are not authorized for Federal funding by the DOE Contracting Officer in advance of a final NEPA decision, the Recipient is doing so at risk of not receiving Federal funding and such costs may not be recognized as allowable cost share.

Insert the following language in the award:

You are required to:

Any work proposed to be conducted at a DOE laboratory may be subject to additional NEPA review by the cognizant DOE NEPA Compliance Officer for the specific DOE laboratory prior to initiating such work. Further, any work conducted at a DOE laboratory must meet the laboratory's health and safety requirements.

Note to Specialist :

Advanced Manufacturing Office
This NEPA determination requires a tailored NEPA provision.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:  Casey Strickland Date: 3/13/2018
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