

PMC-ND
(1.08.09.13)

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



RECIPIENT:VENCORE Services and Solutions, Inc

STATE: FL

PROJECT TITLE : Integrated Insulation System for Automotive Cryogenic Storage Tanks

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001412	DE-EE0007649	GFO-0007649-001	GO7649

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:

VENCORE Services and Solutions, Inc. (Vencore) would utilize DOE and cost share funding to develop an integrated insulation system for cryogenic automotive tank applications. Vencore would perform modeling, development, evaluation, testing, and fabrication of cryogenic storage vessels at the Cryogenic Test Laboratory (CTL) located at the Kennedy Space Center in Florida. Savannah River National Laboratory would provide engineering and technical model analyses and Energy Florida would assess the commercialization and manufacturability of the concept. Insulation materials and high-pressure composite tanks used to fabricate cryogenic storage vessels at CTL would be manufactured at Aspen Aerogel's facility in Northborough, Massachusetts and Hexagon Composites facility in Lincoln, Nebraska respectively.

This project involves the use and handling of cryogens, specifically, liquid nitrogen and insulation materials. Existing laboratory procedures at the CTL are in place discussing the cryogenic hazard and the required safety protocols, including personal protective equipment. These procedures include employee training, engineering controls, monitoring, and internal assessments. Additional policies and procedures would be implemented as necessary as new health/safety risks are identified. Safety data sheets would be available for any insulation material used at the CTL. Prior to any testing, the Safety office would be contacted for concurrence to proceed with testing. Aspen Aerogel and Hexagon Composites, as established manufacturers of insulation materials and tanks, have existing corporate health and safety policies and procedures that cover any hazardous materials utilized in the manufacturing process. These procedures would be followed to ensure compliance with applicable health and safety regulations and to minimize health and safety risks to employees. All facilities comply with federal fire, safety, hazardous waste removal, and emergency plan regulations. All non-hazardous waste generated would be disposed of in accordance with established guidelines at each facility. Project activities would result in minimal air emissions and would not require any physical modification to existing facilities, ground disturbing activities, or installation of equipment outdoors. There would be no change in use, mission, or operation of any facility.

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 :

Fuel Cell Technologies Office
This NEPA determination does require a tailored NEPA provision.
NEPA review completed by Casey Strickland, 08/04/16

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

Justin Kurian
NEPA Compliance Officer

Date: _____

8/5/2016

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: _____

Field Office Manager

Date: _____