

PMC-ND  
(1.08.09.13)

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



**RECIPIENT:**Colorado School of Mines

**STATE:** CO

**PROJECT TITLE :** Advanced Hybrid Membranes for Next Generation PEMFC Automotive Applications

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0000360	DE-EE0006363	GFO-0006363-001	

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:

<b>B3.6 Small-scale research and development, laboratory operations, and pilot projects</b>	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.
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**Rationale for determination:**

The Colorado School of Mines is proposing to use DOE funding to optimize and fabricate thin film fuel cell membranes that would be able to withstand higher temperatures and be more efficient in automotive applications.

The CSM would be conducting research and development activities in four dedicated laboratory research facilities; all with established healthy, safety, waste, and hazardous material protocols and enforcements in place. These include:

- \* Colorado School of Mines' Colorado Fuel Cell Center in Golden, CO
- \* Nissan North America Inc.'s Nissan Technical Center North America in Detroit, MI
- \* 3M Inc.'s Fuel Cell Components Group in St. Paul, MN
- \* DOE's National Renewable Energy Laboratory's Fuel Cell R & D Group in Golden, CO

Each organization and facility has dedicated hazardous material handling and disposal practices. The fuel cell testing would involve the use of hydrogen and oxygen gasses in facilities rated for the safe handling of these gases, by state and local fire chiefs. Existing corporate health and safety policies and procedures would be followed including employee training, proper protective equipment, engineering controls, monitoring, and internal assessments.

The project would involve the use of organic chemicals, used to synthesize polymers, which will be procured by CSM and used in a facility rated for handling hazardous materials and stored in approved and secured chemicals storage cabinets onsite.

DOE has determined that this project is consistent with actions covered under DOE CX B3.6 (small scale research and development projects and conventional laboratory operations); and therefore 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 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 :

NEPA review completed by Laura Margason on August 22, 2013

This NEPA Determination does not require a tailored NEPA provision.

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**

NEPA Compliance Officer Signature: \_\_\_\_\_

  
NEPA Compliance Officer

Date: \_\_\_\_\_

8/26/2013

**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: \_\_\_\_\_