

PMC-EF2a

2010

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



RECIPIENT: General Motors LLC

STATE: MI

PROJECT TITLE : High-Activity Dealloyed Cathode Catalysts

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-PS3608GO98009	EE0000458	GFO-10-332	EE458

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:**

General Motors proposes to use federal funds to develop and analyze partially dealloyed platinum within fuel cell catalyst operation, as well cost and fuel cell durability. These tests also address DOE targets for fuel cell durability.

This project involves demonstrations of beginning-of-life mass activity to develop materials that exceed DOE's target for oxygen reduction reactions activity, small scale demonstration of durability to evaluate the enhanced oxygen reduction reaction activity, demonstrate the ability of beginning-of-life power density in membrane-electrode assemblies by developing tests to measure oxygen to minimize transport limitations within the fuel cell, evaluation of the power density achieved in fuel cells.

This project comprises of indoor laboratory experiments in existing facilities of General Motors, Johnson Matthey Fuel Cells, George Washington University, Technical University of Berlin, Massachusetts Institute of Technology, & North Eastern University. For each of the locations where lab work will take place and R & D questionnaire has been submitted to the project file that thoroughly addresses chemical and safety protocols.

This project comprised of indoor bench-scale research experiments in conventional laboratories, therefore a CX B3.6 applies.

**NEPA PROVISION**

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

None Given.

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

NEPA Compliance Officer Signature:

Date:

5/13/10