

PMC-EF2a

(204.02)

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



RECIPIENT: University of Arizona

STATE: AZ

PROJECT TITLE : High Temperature, Low Relative Humidity Polymer-Type Membranes

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-PS36-05GO95020	DE-FG36-06GO16029	GFO-06-077-001	GO16029

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 (including, but not limited to, literature surveys, inventories, audits), data analysis (including computer modeling), document preparation (such as conceptual design or feasibility studies, analytical energy supply and demand studies), and dissemination (including, but not limited to, document mailings, publication, and distribution; and classroom training and informational programs), but not including site characterization or environmental monitoring.
- 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:

This project was previously approved by GFO-06-077 on April 20, 2006 with a CX B3.6. Subsequent to that approval, there was a recipient change for the award from Arizona State University (ASU) to University of Arizona (U of A) therefore another NEPA determination was needed.

The objective of this project is to develop high temperature low humidity polymer electrolyte membrane materials based on a solvent-free protic-salt concept. While the project is changing locations, the project goals have not changed since the original NEPA determination.

Project tasks are as follows:

- Task 1.0 Proton Conducting Ionic Liquids as Models to Membranes
- Task 2.0 Formation of Proton Conducting Membranes
- Task 3.0 Temperature Dependence of the Liquid and Membrane Electrolyte Properties
- Task 4.0 Determination of the Mechanism of Proton Conduction by NMR
- Task 5.0 Iteration between Synthesis and Characterization to Make Improved Materials
- Task 6.0 Proof of Membrane Concept Demonstration
- Task 7.0 Project Management and Reporting

All project work is comprised of information gathering, data analysis, document preparation; and conventional laboratory operations; therefore the DOE has categorized this proposal into Categorical Exclusions A9 and B3.6.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

EF2a prepared by Casey Strickland

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: 
NEPA Compliance Officer

Date: 8/13/10

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: _____