

PMC-ND

(1.08.09.13)

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



RECIPIENT: Hydro Research Foundation

STATE: MA

PROJECT TITLE : Hydro Research Foundation University Research Awards - MIT

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000832	DE-EE0006506	GFO-0006506-004	GO6506

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 the Hydro Research Foundation (HRF) to provide grants via pass through awards to individual research projects through its University Research Awards Program. The purpose of the grants is to support innovative research related to conventional or pumped-storage hydropower, stimulate interest among students and universities in the hydropower research arena, and provide students with a foundation for productive careers related to the hydropower industry.

DOE completed a previous NEPA review (GFO-0006506-001 CX A9 2/7/2014) that included administrative planning and development of a Hydro Fellowship Program that would competitively award hydro-power related, graduate-level research projects for one-to-two year periods of study. This NEPA determination applies to activities associated with one of the projects which has been selected to receive a grant award from the HRF.

The grant awardee from the Massachusetts Institute of Technology (MIT) would use grant funding to develop, apply and characterize thin films of hydrophobic rare earth oxides on water conveyance structures used in the hydropower technologies. The awardee would conduct in-lab experiments to test the durability and stability of the hydrophobic coating then follow up with an analysis and characterization of the films after testing. One gram each of the rare earth oxides, cerium oxide and erbium oxide, would be used throughout the duration of the proposed project.

All lab work would take place in the Varanasi Group Laboratory located in Building 35, Room 401, at Massachusetts Institute of Technology (77 Massachusetts Avenue, Cambridge MA 02139). MIT Environmental Health and Safety (EHS) have reviewed and approved the proposed project. All wet work would be performed under a fume hood, and no toxic emissions are expected as a result of the proposed project. MIT holds two Significant Industrial User discharge permits. The amount of material that would be used for the proposed project would not exceed the allowable limits of the existing permits. Discharges are monitored regularly and the campus is inspected annually to evaluate compliance for each of the permits. No other permits would be required for the proposed project. All waste would be disposed of in labeled containers which would then be appropriately handled by trained waste disposal personnel. Protocols are in place for fire emergencies, waste handling, and spill containment which are monitored by an internal laboratory safety representative as well as the MIT EHS Office.

Based on a review of the project information and the above analysis, DOE has determined that activities associated with the proposed project would not have significant individual or cumulative impact to human health and/or environment. DOE has determined that the work outlined is consistent with the actions identified in categorical

exclusion A9 "information gathering," and B3.6 "small-scale research, laboratory operations," and 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.

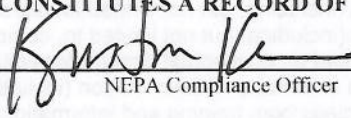
Note to Specialist :

Review completed by Logan Sholar 06/02/2014.

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: _____

6/3/2014

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: _____