

PMC-ND

(1.08.09.13)

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



RECIPIENT: North Dakota State University

STATE: ND

PROJECT TITLE: RESEARCH AND DEVELOPMENT OF INNOVATIVE TECHNOLOGIES FOR LOW IMPACT
 : HYDROPOWER DEVELOPMENT

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001286	DE-EE0007246	GFO-0007246-001	

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:

- | | |
|---|--|
| 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 North Dakota State University (NDSU) to develop a concrete alternative that is more functionally effective and cost effective for hydro power facilities. Primary goals would be to decrease shrinkage, increase water tightness and reduce the carbon footprint of hydropower projects and facilities by eradicating the need for steel and cement.

Activities associated with the proposed project would include literature review, selection and procurement of materials, lab testing of selected combinations of materials, data analysis and reporting. These endeavors would be completed through a joint effort between NDSU and Iowa State University (ISU). Lab work would be split between the partners with NDSU focusing on non-destructive testing at their electron microscopy center and AIM Core Lab on campus in Fargo, ND and ISU handling the materials testing at their Pavement and Materials Research Lab on campus in Ames, IA. The facilities in which lab work would occur have been purpose-built for the type of activities being proposed; therefore, no adverse impacts to sensitive resources are expected as a result of the proposed project. No change in the use, mission or operation of existing facilities would arise out of this effort. The facilities have all applicable permits in place, and would not need additional permits for the proposed activities.

No hazardous materials would be utilized during the course of this project and none of the utilized technologies create emissions. Only non-hazardous wastes such as leftover concrete alternatives would be produced and would be disposed of through normal municipal waste streams as dictated by governing standard disposal practice followed by the universities. No siting, construction or major expansion of waste storage, disposal, recovery, or treatment actions/facilities would be required.

Based on review of the project information and the above analysis, DOE has determined that the proposed project would not have a significant individual or cumulative impact to human health and/or environment. DOE has determined these tasks are consistent with actions contained in DOE categorical exclusion A9 "information gathering, analysis, and dissemination," and, B3.6 "small scale research and development, laboratory operations, and pilot projects," and are 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 :

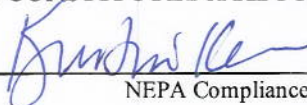
Water Power Technologies Office

This NEPA determination does not require a tailored NEPA provision.

Review completed by Rebecca McCord on 12/09/2015

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____



NEPA Compliance Officer

Date: 12/10/2015

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: _____