PMC-EF2a

(2.04.02)

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

RECIPIENT: Wavebob, LLC **STATE:** MD

PROJECT TITLE: Wavebob Advanced Wave Energy Conversion Project

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000293	DE-EE0003641	GFO-0003641-001	0

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:

Wavebob, LLC, in Annapolis Maryland, is proposing to use federal funding to design, build and test a Wave Energy Conversion System (WEC) for commercial use in large utility serviced markets as well as smaller discrete markets.

Wavebob's WEC system consists of a floating buoy device that automatically adjusts its response to suit the prevailing wave climate. The project would evaluate system motion, interactions and dynamic responses in order to maximize the amount of useful power that could be delivered to the electricity grid on-shore.

The proposed project involves information gathering and indoor bench-scale research and laboratory operations. All work would be completed in the lab and all testing would take place in a lab tank. Testing would be conducted at multiple locations.

RCT Systems, Inc. is located at 1745A West Nursery Road, Linthicum Heights, Maryland 21090. The RCT Systems facility in Linthicum includes a well-equipped electronics laboratory, PC-based CAD/drafting equipment and a fully equipped machine shop as well as an assembly and test area. At this lab, the prototypes would be designed, built and tested. All safety protocols are subject to OSHA standards and they are internally adopted and monitored for safe operation of machinery and high voltage circuitry. Procedures include lock-out/tag-out of sources of energy for personnel protection during assembly and maintenance of equipment. In the submitted R & D Questionnaire, RCT Systems meets all Federal, State of Maryland and local government environmental regulations for airborne emissions, waterborne effluents, external radiation levels, outdoor noise, solid and bulk waste disposal and the handling and storage of toxic and hazardous materials. There are no discharges requiring permits at this time.

Subsequent testing for WEC and mooring elements would be performed at either the United States Naval Academy Hydromechanics Laboratory (USNA) or the Maritime Research Institute Netherlands (MARIN).

The USNA is located at 590 Holloway Rd., Annapolis, Maryland 21402. The lab consists of ship model testing tanks and associated offices, shop facilities and computer resources. USNA Hydromechanics Lab, like the Navy in general, operates on "Instructions." There are no permits at the Lab, but many instructions, which are posted, accessible and current. Two such representative directives are attached in their entirety for their relevance to 1) Occupational Safety Program and, 2) Environmental Policy. Compliance to these instructions is assured via bi-annual Navy inspections. Supervisors are responsible for ongoing safety compliance between inspections and follow NAVOSH protocols for procedures such as high voltage lock-out/tag-out and environmental spills.

The MARIN is located at 2, Haagsteeg 6708 PM Wageningen, The Netherlands. The lab consists of ship model

testing tanks and associated offices, shop facilities and computer resources. The lab is subject to routine inspection to ensure compliance with applicable health, safety and environmental standards as required by Dutch ARBO laws. Supervisors are responsible for ongoing safety compliance between inspections and follow OSHAS 18001 protocols for procedures such as high voltage lock-out/tag-out and environmental spills.

In view of the information provided by the State and the recipient, DOE has determined that the impacts related to the proposed project are anticipated to have negligible affects on the human and natural environment. The proposed project is consistent with actions outlined in A9 (information gathering) and B3.6 (indoor bench-scale and research and conventional laboratory operations) and is, therefore, 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:

Note to Specialist :

Cristina Tyler: 1/27/2011.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 1/27/10

NEPA Compliance Officer

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: _____ Date: _____

Field Office Manager