PMC-EF2a	U.S. DEPARTMENT OF ENERGY	000
(2.04.02)	EERE PROJECT MANAGEMENT CENTER	
	NEPA DETERMINATION	C. S. C.

**RECIPIENT:**Resolute Marine Energy, Inc.

STATE: MA

PROJECT TITLE : Wave-Actuated Power Take Off Device for Electricity Generation

 Funding Opportunity Announcement Number
 Procurement Instrument Number
 NEPA Control Number
 CID Number

 DE-FOA-0000293
 DE-EE0004565
 GFO-0004565-001
 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:

Resolute Marine Energy (RME), in Boston, Massachusetts, is proposing to use DOE funding to develop a costeffective prototype for use within wave energy converters (WEC). The proposed project would involve computermodeling lab work and prototype testing.

All work would take place at the RME facility at 3 Post Office Square, Boston, MA 02109. The scope of the proposed project would involve using model simulation to acquire design data, develop preliminary prototype designs from the acquired data, and building a prototype system with a corresponding waterproof encasing.

Prototype testing at the RME facility would involve using a thirty gallon mop sink to determine if the prototype PTO encasing is impervious to water. This test would involve placing the PTO in a mop sink filled with clean drinking water provided by the City of Boston municipal water system. After leaving the prototype submersed for approximately 24 hours, it would be removed from the mop sink and checked for leaks. RME has submitted an R & D Questionnaire, which addresses all issues pertaining to safety and waste management. No permits would be required because the immersed prototype is neither constructed of, nor contains toxic materials.

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).

#### 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 Cristina Tyler on 12/17/2010.

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

NEPA Compliance Officer Signature:

Date: 12/171

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:

Field Office Manager

Date: