

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



RECIPIENT: AQUAHARMONICS INC

STATE: OR

PROJECT TITLE: Open Water Testing of a Scaled Next Generation Point Absorber Wave Energy Device with Phase Control

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001663	DE-EE0008098	GFO-0008098-004	GO8098

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Policy 451.1), 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.)

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to AquaHarmonics, Inc. to design, fabricate, bench test, and perform desktop data analyses of a 1:7 scale Wave Energy Conversion device (WEC).

The proposed project is divided into two Budget Periods (BPs) with a total of 5 tasks. Tasks 1-3 occurred in BP1, and Tasks 4-5 occur in BP2. DOE previously completed three NEPA reviews for Tasks 1-4 (GFO-0008098-001 CX A9, B3.6, 8/22/2017; GFO-0008098-002, A9, B3.6, 5/17/2019; GFO-0008098-003 CX A9, B3.6, 7/20/2020).

During Task 4, the DOE Water Power Technologies Office (WPTO) re-directed the project to remove the remaining proposed manufacturing activities and in-water testing activities due to insufficient funds. Of note, the Power Takeoff (PTO) System for the WEC was manufactured and tested at Sandia National Laboratories under a previous ND (GFO-0008098-003); however, all additional device manufacturing (e.g., hull system) efforts did not take place. AquaHarmonics, Inc. amended their SOPO to remove additional manufacturing and in-water deployment activities for the WEC. Task 4 has been modified by removing any further device manufacturing activities and replacing them with additional desktop analysis activities focused on improving WEC performance and risk reduction for the electrical-optical-mechanical cable subsystem. Task 5 has been modified by removing in-water testing activities and replacing them with desktop final reporting and analysis activities. This NEPA Determination applies to Tasks 4 and 5.

Proposed activities are limited to intellectual, academic, or analytical activities, and all research and analysis work would be conducted in purpose-built facilities. Activities would occur at the following locations: AquaHarmonics, Inc. in East Linn, OR, and Sandia National Laboratories in Albuquerque, NM.

DOE has considered potential impacts on resources, including those of an ecological, historical, cultural, and socioeconomic nature. DOE does not anticipate adverse impacts on these resources.

Any work proposed to be conducted at a federal facility may be subject to additional NEPA review by the cognizant federal official and must meet the applicable health and safety requirements of the facility.

NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

Water Power Technologies Office
NEPA review completed by Melissa Parker, 02/29/24

FOR CATEGORICAL EXCLUSION DETERMINATIONS

The proposed action (or the part of the proposal defined in the Rationale above) fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D. To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposal.

The proposed action has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

The proposed action is categorically excluded from further NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:  NEPA Compliance Officer Date: 3/5/2024

FIELD OFFICE MANAGER DETERMINATION

- Field Office Manager review not required
- Field Office Manager review required

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____ Date: _____
Field Office Manager