PMC-EF2a
(2.0.4.02)

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

RECIPIENT: Sound & Sea Technology, Inc. **STATE:** WA

PROJECT TITLE : Marine and Hydrokinetic Technology Readiness Advancement Initiative

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000293	DE-EE0003632	GFO-0003632-001	GO0

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:

Sound & Sea Technology, Inc. (SST), in Lynnwood, Washington, is proposing to use DOE funding to study wave energy device anchoring and mooring techniques applicable for the full range of marine and hydrokinetic (MHK) technologies. SST would develop a remotely controlled grouting procedure suitable for deepwater anchor installations to securely and cost-effectively anchor ocean energy devices to seabeds, while reducing the capital and installation costs of MHK systems.

The proposed project would involve developing a procedure that would test grout delivery methods in various situations, monitoring both grout curing and final yield strength as methods for validating the grout delivery methods. Using various combinations of concrete mixtures, SST would drill a hole into a substrate, which would represent conditions similar to what would be expected on the ocean floor. SST would then place an anchor into the hole and use a grout mixture to seal the anchor in place. A cable and a strain gauge would be used to determine the amount of pull the substrates can handle before the anchor is ripped from the substrate. These tests would help SST determine maximum anchoring loads for various sea floor locations.

The testing would take place at the Naval Facilities Engineering Command Naval Facilities Engineering Service Center (NFESC) dive tank. The dive tank is located within the NFESC facility in Naval Base Ventura County, Port Hueneme, California. The dive tank is an exterior, chlorinated salt water tank, approximately 30 feet in diameter by 12 feet deep, which is surrounded by a work deck constructed of lumber. The adjacent lay-down area is an asphalt, open-space.

The NFESC safety protocols are governed by the NFESC Test Plan. Before testing can begin, SST must draft a Test Plan for NFESC, which addresses standard operating procedures for safety, weight handling, working aloft, hazardous materials and emergency contact information. Once the Test Plan is approved by the Head of the Department, testing can begin.

The Sewage Disposal Permit, from the City of Oxnard, has been established to govern the discharge of effluent from the dive tank. Only chlorinated saltwater is permitted to be discharged into a conventional facility sewage system. Prior to discharge, an assessment would be made of the potential alteration of the water and the degree of alteration. If the effluent is deemed significantly altered, an alternative method of discharge, such as pump-truck disposal, would be used.

No additional permits are anticipated. NFESC, as a client of Naval Base Ventura County, is governed by base-wide permits and regulations. The permits that are currently in place at NFESC include the scope of work and activities of

the proposed project.

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 12/16/2010.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 12/16/10

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