

PMC-ND

(1.08.09.13)

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



RECIPIENT: Ultrasonic Technologies, Inc.

STATE: FL

PROJECT TITLE: In-Line Sensor for Inspection of Diamond Wire

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA0001400	DE-EE0007580	GFO-0007580-001	GO7580

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 Ultrasonic Technologies, Inc. (UST) to advance the Resonance Vibration – Diamond Wire (RV-DW) sensor technology and system to a pre-production stage prototype marketing product with improved accuracy, throughput, and sensitivity.

Activities associated with the proposed project would include: Test Station design and assembly; RV-DW sensor design, fabrication, and testing; and sensor integration into a diamond wire (DW) sawing tool. Design and assembly of the proposed in-house Test Station as well as sensor development and testing would take place at UST's facility in Wesley Chapel, FL. The Test Station would be used to perform a functional test of the sensor. The estimated quantity of material that would be used during fabrication activities is approximately 5 spools (5 kg total) of plastic filament used in 3D printing. Integration and testing of the sensor would occur at the purpose-built facilities of subrecipient Niabrazee in Tonawanda, NY. Additionally, Scanning Electron Microscope (SEM) imaging would be conducted at the University of Central Florida (UCF) in Orlando, FL.

All three facilities in which work would occur are designed for the specific types of small-scale activities being proposed; therefore, no modifications or new permits, additional licenses and/or authorizations would be necessary. Ultrasonic Tech. specializes in Resonance Ultrasonic Vibration technology for complicated research and development projects, and Niabrazee is an experienced manufacturer of diamond plated saw blades with established health and safety procedures and policies. The U.S. Photovoltaic (PV) Manufacturing Consortium has worked previously with UCF to develop inspection tools such as SEM imaging for PV manufacturing. The proposed project does not involve the use, handling, or disposal of hazardous or non-hazardous waste. All equipment and materials would be retained on-site at the offices of the prime recipient.

Based on the review of the proposal, DOE has determined the proposal fits within the class of action(s) and the integral elements of 10 CFR 1021 subpart B outlined in the DOE categorical exclusion(s) selected above. DOE has also determined that: (1) there are no extraordinary circumstances (as defined by 10 CFR 1021.410(2)) related to the proposal that may affect the significance of the environmental effects of the proposal; (2) the proposal has not been segmented to meet the definition of a categorical exclusion; and (3) the proposal is not connected to other actions with potentially significant impacts, related to other proposals with cumulatively significant actions, or an improper interim action. This proposal is categorically excluded from further NEPA review.

NEPA PROVISION

DOE has made a final NEPA determination for this award

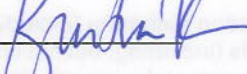
Insert the following language in the award:

If the Recipient intends to make changes to the scope or objective of this project, the Recipient is required to contact the Project Officer, identified in Block 15 of the Assistance Agreement before proceeding. The Recipient must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved. If the Recipient moves forward with activities that are not authorized for Federal funding by the DOE Contracting Officer in advance of a final NEPA decision, the Recipient is doing so at risk of not receiving Federal funding and such costs may not be recognized as allowable cost share.

Note to Specialist :

Solar Energy Technologies Office
This determination does not require a tailored NEPA provision.
This determination completed by Whitney Doss on 08/02/16.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: Electronically Signed By: Kristin Kerwin  Date: 8/2/2016
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