PMC-EF2a
(2/04/02)

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

RECIPIENT: Third Wave Systems, Inc. **STATE:** MN

PROJECT TITLE: Sustainable Manufacturing via Multi-scale Physics-based Process Modeling and Manufacturing-informed Design

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000560	DE-EE0005762	GFO-0005762-001	GO5762

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.

Rational for determination:

The U.S. Department of Energy is proposing to provide federal funding to Third Wave Systems Inc. (TWS) to conduct research and development to improve computer modeling software for manufacturing equipment.

DOE funding would be utilized to improve TWS software systems which simulate how manufacturing tools respond under a variety of conditions (speed, stress or force) created during product manufacturing. The software would also allow companies to monitor the effects of coolants on their machinery and products. There would be some small-scale laboratory work to verify and validate the computer modeling. The improvements would reduce waste streams and energy consumption from machining. Laboratory work would be conducted at the existing 12,000 square foot TWS machining facility, which is located at 6475 City West Parkway, Minneapolis, Minnesota. It is located in an industrial park, adjacent to a highway.

TWS has completed an R&D questionnaire addressing the protocols for laboratory safety, risk management, and waste disposal. The laboratory complies with standard safety procedures and all processes and procedures are monitored by the Applications Engineering Manager and are subject to OSHA standards. No toxic or hazardous waste would be produced and all cutting coolant would be gathered and recycled by an outside company. All necessary permits are in place and no additional permits would be needed.

Based on review of the project information and the above analysis, DOE has determined the research would not have a significant individual or cumulative impact to human health and/or environment. DOE has determined the proposed project is consistent with actions contained in DOE categorical exclusion A9 "information gathering, analysis and dissemination" and B3.6 "small-scale research and development, laboratory operations and pilot projects," and is categorically excluded from further NEPA review under CX A9 and B3.6.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Note to Specialist :

Kelly Daigle 8.27.2012

DOE: $4,069,882
Cost Share: $964,717
Total Project Cost: $5,034,599

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: Electronically Signed By Lori Gray / Lori Gray Date: 8/27/2012
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