

PMC-ND

(1.08.09.13)

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

**RECIPIENT:** CompRex, LLC**STATE:** WI

PROJECT TITLE: 740H Diffusion Bonded Compact Heat Exchanger for High Temperature and Pressure Applications

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001840	DE-EE0008535	GFO-0008535-001	GO8535

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.)

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 CompRex, LLC for the design, development, fabrication, and testing of advanced heat exchange equipment. Design, development, assembly, and testing work would occur at CompRex's facility in De Pere, Wisconsin. The material to be used in the project would be produced by Special Metals Corporation at their facility in Huntington, West Virginia. Part of the fabrication work, which includes pickling and etching, would occur at vendor facilities in Elkhorn, Wisconsin, and Newark, New York. Testing would also take place within laboratories at the University of Wisconsin – Madison. Diffusion bonding work in the fabrication process would occur at a new facility expected to be in La Crosse, Wisconsin but the exact location has yet to be finalized. Once this location is finalized, additional NEPA review will be required for the tasks associated with work occurring at that location.

Project activities would include laboratory scale design, development, fabrication, and testing of heat exchanger equipment. Project work would occur within existing dedicated laboratories designed for this type of work and would utilize standard equipment; therefore no modifications, new permits, additional licenses and/or authorizations would be necessary. No ground disturbing activities, no changes in operation of existing facilities, and no installation of equipment outdoors would occur for project activities. Project work could involve potential safety hazards from materials handling, welding and assembly work and the handling of acids. These hazards would be mitigated through the use of standard policies and safety procedures, which include protective equipment, monitoring, and internal assessments. Storage, transport and disposal of any acids would adhere to strict internal policies and procedures within the facilities where acids are being used. Safety equipment as well as specialist third-party contractors for recycling would be used for any wastes generated as needed. All project work would occur in-lab and within dedicated facilities designed for the work being performed, and therefore are not expected to pose risks to the public. There are no anticipated safety hazards for the material and bonded sample evaluation work occurring at the University of Wisconsin – Madison as these activities mainly involve operation of analytical instruments. Non-hazardous wastes generated would be recycled as needed or disposed of through municipal waste management. Project activities are not expected to create a significant increase in air pollutants. Diffusion bonding work at a facility

yet to be determined may require some facility modification. That work and any potential associated impacts would be reviewed separately once the location is finalized. DOE does not anticipate any impacts to resources of concern due to the proposed activities.

NEPA PROVISION

DOE has made a conditional NEPA determination.

The NEPA Determination applies to the following Topic Areas, Budget Periods, and/or tasks:

Budget Period 1 (excluding Subtask 3.2)

Budget Period 2 (excluding Subtask 5.2 and Task 6)

The NEPA Determination does not apply to the following Topic Area, Budget Periods, and/or tasks:

Task 3.2 - Conduct bonding trials

Task 5.2 - Qualification with thin etched shim

Task 6.0 - Produce test PCHE unit for ASME qualification

Notes:

Solar Energy Technologies Office

This NEPA determination requires a tailored NEPA provision.

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.

A portion of the proposed action is categorically excluded from further NEPA review. The NEPA Provision identifies Topic Areas, Budget Periods, tasks, and/or subtasks that are subject to additional NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:


NEPA Compliance Officer

Date: 12/21/2018

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:

Field Office Manager

Date: