

PMC-ND
(1.08.09.13)

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



RECIPIENT: SFP Works

STATE: MI

PROJECT
TITLE : Flash Processed Carbon Steels for Automotive Applications

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
N/A (DNFA for SBIR Phase III)	DE-EE0007877	GFO-0007877-001	GO7877

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.) |
| B1.31 Installation or relocation of machinery and equipment | Installation or relocation and operation of machinery and equipment (including, but not limited to, laboratory equipment, electronic hardware, manufacturing machinery, maintenance equipment, and health and safety equipment), provided that uses of the installed or relocated items are consistent with the general missions of the receiving structure. Covered actions include modifications to an existing building, within or contiguous to a previously disturbed or developed area, that are necessary for equipment installation and relocation. Such modifications would not appreciably increase the footprint or height of the existing building or have the potential to cause significant changes to the type and magnitude of environmental impacts. |
| B2.4 Equipment Qualification | Activities undertaken to (1) qualify equipment for use or improve systems reliability or (2) augment information on safety-related system components. These activities include, but are not limited to, transportation container qualification testing, crane and lift-gear certification or recertification testing, high efficiency particulate air filter testing and certification, stress tests (such as "burn-in" testing of electrical components and leak testing), and calibration of sensors or diagnostic equipment. |

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to SFP Works, LLC to design, develop, fabricate, and operate a machine that uses induction heating to heat 3 foot wide coils of steel sheet to over 1000 degrees Celsius and then within 5 seconds, quench the steel in water. Besides vendor developed components, all activities would occur at the SFP Works facility in Washington, MI. DOE is one of 11 federal agencies participating in the Small Business Innovation Research - Small Business Technology Transfer (SBIR-STTR) programs enacted under the Small Business Innovation Development Act of 1982 and run by the Small Business Administration. The SBIR-STTR programs work with eligible small technology firms to stimulate innovative, cost-effective solutions to challenging scientific and engineering problems. SFP Works has previously received both SBIR Phase I and SBIR Phase II awards. This SBIR Phase III award is a continuation of the work funded under their SBIR Phase I award. Phase III SBIR-STTR grants are used to pursue commercialization objectives resulting from the Phase I/II research and development activities. This proposed Phase III project continues the Phase I work by scaling up the process to enable full coils (20,000 lb) of sheet product to be Flash Processed.

Vendors would design and build a 1.2 megawatt induction power supply, transformer, heat exchanger, steel coil handling components, and an induction coil system. These components would be assembled, integrated, debugged, and operated at the SFP Works facility to insure critical parameters are maintained for proper Flash operation and Flash processing requirements are met. This effort would qualify the equipment being used and validate the Flash processing of sheet metal at a scaled up to commercially relevant production rate with predictable and repeatable mechanical properties. Operational consistency of the Flash Line would be independently validated by a third party, production costs would be estimated, and a final report would be submitted to the DOE.

No physical modification of existing facilities or construction of new facilities would occur. There would be no change in the use, mission or operation of existing facilities. The use of industrial equipment would pose hazards of electrocution (from the induction coil and leads) as well as bodily harm if a person circumvents guards on the machine

while it is running. These risks would be mitigated by having OSHA approved guarding in place to prevent access to danger areas. There are no known additional risks. There would be no hazardous or non-hazardous waste generated. The steel used is recycled or used in further activities. The water is recycled in the process and reused for future runs.

Based on the review of the proposal, DOE has determined the proposal fits within the class of action(s) and the integral elements of Appendix B to Subpart D of 10 CFR 1021 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 :

Advanced Manufacturing Office
This NEPA determination does not require a tailored NEPA provision.
Review completed by Chris Rowe, 4/7/2017

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____



Casey Strickland

Date: 4/13/2017

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: _____

Field Office Manager

Date: _____