

PMC-ND  
(1.08.09.13)

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



**RECIPIENT:** Collaborative Composite Solutions (CCS) Corporation

**STATE:** TN

**PROJECT TITLE:** Institute for Advanced Composites Manufacturing Innovation

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0000977	DE-EE0006926	GFO-0006926-BP5	GO6926

**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:

**A11 Technical advice and assistance to organizations**

Technical advice and planning assistance to international, national, state, and local organizations.

**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.

**B2.1 Workplace enhancements**

Modifications within or contiguous to an existing structure, in a previously disturbed or developed area, to enhance workplace habitability (including, but not limited to, installation or improvements to lighting, radiation shielding, or heating/ventilating/air conditioning and its instrumentation, and noise reduction).

**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.

**B3.15 Small-scale indoor research and development projects using nanoscale materials**

Siting, construction, modification, operation, and decommissioning of facilities for indoor small-scale research and development projects and small-scale pilot projects using nanoscale materials in accordance with applicable requirements (such as engineering, worker safety, procedural, and administrative regulations) necessary to ensure the containment of any hazardous materials. Construction and modification activities would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible).

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to Collaborative Composite Solutions Corporation for the Institute for Advanced Composites Manufacturing Innovation (IACMI) project. The Institute is a consortium established under a Cooperative Agreement with the DOE with participation from sub-recipients of the award, private companies, universities and other educational institutions, as well as other state and federal government agencies and research organizations. IACMI's technology development and demonstration programs would focus on reducing technical risk and developing a robust supply chain to support growing applications of advanced composites in vehicles, wind energy and compressed gas storage. Participating states would engage their economic development and education programs to encourage new business formation and develop a capable workforce to serve the composites industry. DOE has previously completed four NEPA Determinations for activities in

each BP (GFO-0006926-001; 06/04/2015, GFO-0006926-002; 01/26/16, GFO-0006926-BP3; 1/23/17, GFO-0006926-BP4; 3/13/18) and one NEPA Determination specific to activities at the Scale-up Facility (SUF) operated by Michigan State University (GFO-0006929-003; 02/25/16). This NEPA Determination is specific to BP5, the last BP for the project.

Each task/subtask in BP5 would be completed by either the prime recipient or one of the project partners. For the project partners listed in question 2b of the completed EQ1 (which includes the document "EQ-1 Form 2b - Updated 06132019.docx" attached in the Project Management Center), the scope of work for proposed activities in BP5 are generally laboratory scale operations; equipment installation; data analysis and modeling; or educational, managerial, and reporting activities. The location of the facilities and description of proposed activities for the prime recipient and each partner are detailed within question 2b of the completed EQ1 for the project. Initially, entries detailed in question 2b include only those projects approved by the contracting officer at the start of BP5. Additional entries in question 2b may be incorporated as new partners are brought into the IACMI project and specific sites are identified as long as these additional entries conform to the rationale and CXs applied in this NEPA Determination. Any new partners that do not fit the above, will be required to submit separate EQ1s for further review.

All facilities would conduct activities consistent with current operations and expansion or modification of facilities is not expected to occur in BP5, beyond ongoing construction activities at Michigan State University that were reviewed in a previous NEPA determination (GFO-0006926-BP4; 3/13/18). None of the activities occurring at any of the listed facilities would require any new permits, licenses or authorizations for BP5 activities. No new waste streams or effluents would be produced as a result of the proposed activities in BP5. DOE does not anticipate any impacts to resources of concern due to the proposed activities in BP5.

Nanoscale materials would be used by the University of Dayton and would include carbon nanotubes (CNTs). CNTs would be anchored to a steel substrate and not air borne. Any unused CNT materials would be incinerated in a controlled environment to convert the CNTs to CO<sub>2</sub>. Catalyst from the substrate would be reclaimed for future use. Operators who work with the CNT would wear personal protective equipment and follow required approved safe handling practices.

## NEPA PROVISION

DOE has made a final NEPA determination.

Include the following condition in the financial assistance agreement:

Any work proposed to be conducted at a federal facility may be subject to additional NEPA review by the cognizant federal official and must meet the applicable health and safety requirements of the facility.

You are restricted from taking any action using federal funds, which would have an adverse effect on the environment or limit the choice of reasonable alternatives prior to DOE/NNSA providing either a NEPA clearance or a final NEPA decision regarding the project.

The recipient is required to consult with the DOE Project Officer and NEPA Specialist regarding any project, beyond what is proposed in this NEPA determination, that would result in:

- changes in function, use, or operation of existing facilities, and/or
- modifications to existing facilities, and/or
- ground disturbing or new construction activities

prior to initiating any of these activities in order to determine whether additional NEPA review is required.

Notes:

This NEPA Determination requires a tailored NEPA provision.  
Advanced Manufacturing Office  
Diana Heyder 07/11/19

## 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.

DOE has determined that work to be carried out outside of the United States, its territories and possessions is exempt from further review pursuant to Section 5.1.1 of the DOE Final Guidelines for Implementation of Executive Order 12114; "Environmental Effects Abroad of Major Federal Actions."

The proposed action is categorically excluded from further NEPA review.

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**

NEPA Compliance Officer Signature: \_\_\_\_\_

 Electronically Signed By: **Casey Strickland**  
NEPA Compliance Officer

Date: 7/18/2019

**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: \_\_\_\_\_