

PMC-ND

(1.08.09.13)

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

**RECIPIENT:** University of Wisconsin**STATE:** WI

PROJECT TITLE: SWIFT: Single-pass, Weather Independent Fractionation Technology for Improved Property Control of Corn Stover Feedstock

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0002029	DE-EE0008908	GFO-0008908-001	

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 the University of Wisconsin – Madison (UW) to develop an improved corn stover harvest method.

The proposed project would include an initial verification of baseline data. It would then include: modeling of the stover fractionation process; the design and fabrication of modified harvest and stover fractionation equipment; the harvest and fractionation of up to 20 tons of stover feedstock using modified harvest equipment; and, analysis of harvested fractionated stover.

Modeling work would be completed at the University of Iowa, Department of Agriculture and Biological Engineering. Work would be limited to modeling and analysis and would be completed in a dedicated University facility.

Design, and fabrication of modified equipment as well as harvesting of corn stover would occur at the University of Wisconsin Agricultural Research Station in Arlington, Wisconsin. Equipment to be modified would be standard farm equipment approximately the size of a standard farm tractor and harvester. Modifications to equipment would be completed by UW at the Arlington facility which regularly engages in this type of work. Existing university safety policies and procedures would be followed, including employee training, use of proper protective equipment, and appropriate supervision.

Corn Stover feedstock is regularly grown at the Arlington facility, an Agricultural Resource Facility which grows crops and engages in conventional agricultural practices. No new land will be put into farming for this project and no new strains of corn or other crops will be grown. This project includes only a change to harvest and fractionation methods, not to crops being grown at the facility. Existing University health and safety policies will be followed during all agricultural practices. For this project UW would harvest up to 20 tons of stover feedstock using the modified harvest and fractionation equipment.

Harvested fractionated stover feedstock would be shipped to the Idaho National Lab (INL) in Idaho Falls, ID where it would be analyzed for its conversion potential. Work at INL would include laboratory scale analysis of the stover. This work would include handling of the feedstock and use of various chemicals. INL is a dedicated DOE lab which regularly engages in this type of work. All existing lab safety procedures would be adhered to.

No new permits would be required for any of the work proposed in this project. All work would occur at existing facilities.

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 applicable health and safety requirements of the facility.

NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

Bioenergy Technology Office
This NEPA determination does NOT require a tailored NEPA provision
Review completed by Roak Parker 12.6.19

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.

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: **Roak Parker**
NEPA Compliance Officer

Date: 12/6/2019

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: _____