PMC-EF2a

(2.06.02)

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

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

PROJECT TITLE : University of Wisconsin Oshkosh Anaerobic Dry Digestion Facility

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
CDP	DE-EE0003153	GFO-0003153-001	EE3153

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.
B5.20 Biomass power plants	The installation, modification, operation, and removal of small-scale biomass power plants (generally less than 10 megawatts), using commercially available technology (1) intended primarily to support operations in single facilities (such as a school and community center) or contiguous facilities (such as an office complex); (2) that would not affect the air quality attainment status of the area and would not have the potential to cause a significant increase in the quantity or rate of air emissions and would not have the potential to cause significant impacts to water resources; and (3) would be located within a previously disturbed or developed area. Covered actions would be in accordance with applicable requirements (such as local land use and zoning requirements) in the proposed project area and would incorporate appropriate control technologies and best management practices.

Rational for determination:

DOE is proposing to provide federal funding to the University of Wisconsin, Oshkosh (UW-Oshkosh) to purchase add-on equipment to operate an anaerobic dry digestion, waste-to-energy system at an existing facility. DOE funding would be used to purchase equipment that would measure facility performance using biogas generated by anaerobic digestion of different municipal, agricultural and industrial feedstocks, as well as to use waste biogas from a municipal treatment plant.

Construction of the anaerobic dry digestion facility was completed in 2011 (755 Dempsey Trail, Oshkosh Wisconsin 54902) and is located in a light industrial zone adjacent to the Oshkosh wastewater facility. The town of Oshkosh is located one mile south of Lake Butte des Morts and one mile west of Lake Winnebago.

The facility would produce 8,000 tons per year of compostable waste to generate electricity and heat for a 2-acre urban site. The proposed project would capture the biogas, which is currently being flared. Purchased equipment would include a 370 kW heat and power generator to be installed on an existing concrete pad, a biogas storage and treatment system, a biomass grinder, a front-end loader for loading biomass and two truck scales for measuring biomass and digestate. The purchased equipment would also allow UW-Oshkosh to clean, monitor and process biogas from an adjacent wastewater treatment plant to optimize peak load electricity. Additional trenching would not be required as the facility was designed to receive the add-on equipment. Feedstocks would include supermarket waste, agricultural waste and yard waste. No air emissions requiring regulation would be generated.

Liquid wastes would be generated in chemical extractions of fatty acids analyzed by gas chromatography. The solvent solution is water and formic acid. Liquid waste would be neutralized prior to discharge per state and federal regulations. All materials would be used, stored and disposed of following standard UW-Oshkosh procedures. UW-

Oshkosh is currently a Small Quantity Generator (220 to 2,200 pounds per month of hazardous waste). The proposed project would not be large enough to change the designation.

Chemical composition analysis of feedstock and digestate solids would be conducted at UW-Oshkosh's Aquatic Research Laboratory at 700 Pearl Avenue, Oshkosh, Wisconsin 54901. UW-Oshkosh has completed an R&D questionnaire addressing the protocols for laboratory safety, risk management, chemical handling and waste disposal. UW-Oshkosh complies with standard laboratory safety procedures. Labs are inspected by university staff and campus safety personnel. The department is monitored internally by the Environmental Health and Safety Department and externally by Wisconsin Department of Natural Resources. All applicable permits are in place to conduct research on site.

The proposed project would not impact threatened or endangered species, wetlands, floodplains or cultural resources, as these are not known to occur in the area.

Based on this information, DOE has determined the work outlined is consistent with activities identified in categorical exclusion A9 (information gathering, analysis and dissemination), B3.6 (small-scale research and development, laboratory operations and pilot projects) and B5.20 (biomass power plants).

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

Cristina Tyler 5.30.2012

DOE Funding: $500,000
Cost Share Funding: $517,335
Total Funding: $1,017,335

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 5/31/2012
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