PMC-EF2a

(2.04.02)

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

RECIPIENT: IL Dept. of Commerce & Economic Opportunity **STATE:** IL

PROJECT TITLE : Waste Management Milam High Btu Project

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000052	EE0000119		EE119

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:

B5.21 Methane gas recovery and utilization systems

The installation, modification, operation, and removal of commercially available methane gas recovery and utilization systems installed within a previously disturbed or developed area on or contiguous to an existing landfill or wastewater treatment plant that would not have the potential to cause a significant increase in the quantity or rate of air emissions. 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.

B5.5 Short pipeline segments

Construction and subsequent operation of short (generally less than 20 miles in length) pipeline segments conveying materials (such as air, brine, carbon dioxide, geothermal system fluids, hydrogen gas, natural gas, nitrogen gas, oil, produced water, steam, and water) between existing source facilities and existing receiving facilities (such as facilities for use, reuse, transportation, storage, and refining), provided that the pipeline segments are within previously disturbed or developed rights-of-way.

Rational for determination:

The U.S. Department of Energy (DOE) provided funding to the Illinois Department of Commerce and Economic Opportunity (DCEO) under the DOE's American Recovery and Reinvestment Act of 2009 State Energy Program (SEP). DCEO selected WM Renewable Energy, LLC (WMRE) to receive $2,390,500 in SEP funding (total project cost - $15M).

DOE made a prior NEPA determination (GFO-10-363), which categorically excluded the purchase and installation of engines, switchgears and a gas compressor for a combined heat and power system at WMRE's existing Milam landfill, located at 601 Madison Rd, East Saint Louis, IL 62201. WMRE is now proposes to instead use federal funding to purchase and install equipment that will treat existing landfill gas and create "pipeline-quality" compressed natural gas (CNG). The CNG would be injected into an existing Ameren natural gas transmission pipeline that runs adjacent to the Milam Landfill.

WMRE's new proposal would install a high-Btu 4,000-scfm system that would utilize over 70% of the maximum projected landfill gas generated from the landfill existing landfill gas collection and control system (GCCS). The GCCS consists of 70 of 75 landfill gas wells and over 8,000 linear feet of on-site header and lateral pipeline and the landfill gas is extracted via a vacuum system and utilized at the existing gas-to-energy plant. The same process would be used to supply gas to the proposed high-Btu system. The high-Btu system could recover over 70% of the potential heat energy from Milam's landfill gas. WMRE would create pipeline quality compressed natural gas (CNG) by removing carbon dioxide, nitrogen, water, and other contaminants from the landfill gas. This process would ultimately transform landfill gas (~50% methane and ~50% carbon dioxide) to a natural gas that is ~ 100% methane. Depending on the final system installed, "tail gas" from the process could be used to fuel one of the existing gas-to-electricity engines at the landfill (proposed project).

The proposed project would occupy the same footprint as the previously categorically excluded project; however, it would require the installation of an above ground pipeline (25 to 50 feet long) that would connect to an existing/onsite Ameren Illinois natural gas distribution system/pipeline that runs adjacent to the landfill. The existing pipeline is underground and the connection between the two pipelines will be underground and would require minimal ground disturbance.

The proposed project would reduce air emissions of carbon monoxide, nitrogen oxides, and particulate matter at the landfill (>60%), because the landfill gas would be treated/transformed as opposed to burned/flared. The Milam landfill is in compliance with and has received clearance letters from U.S. Fish & Wildlife, IDNR, and Illinois Historic Preservation Agency.

Based on the information in the project record and the above analysis, DOE has determined the proposed is consistent with the actions in categorical exclusion B5.21 "methane gas recovery and utilization systems" because it would be constructed on an existing landfill and does not have the potential to increase air emissions. The pipeline portion of the proposed project is also consistent with actions in categorically exclusion B5.5 "short pipeline segments" because it would convey natural gas to an existing receiving facility and is in a previously developed area. Therefore, the proposed project is categorically excluded from further NEPA review under B5.21 and B5.5.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If you intend to make changes to the scope or objective of your project you are required to contact the Project Officer identified in Block 11 of the Notice of Financial Assistance Award before proceeding. You must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved.

Note to Specialist :

DOE funding - $2,390,500
EF2a prepared by Melissa Rossiter

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 1/13/2012
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