PMC-EF2a

(2.04.02)

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

RECIPIENT: Nebraska Energy Office **STATE:** NE

PROJECT TITLE: Herd Co. Feedlot Renewable Biomass Waste to Energy Production Facility

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000052	DE-FG-09EE00134	GFO-09-201.003	0

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:

B5.1 Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.

B2.5 Safety and environmental improvements of a facility, including replacement and upgrade of facility components, that do not result in a significant change in the expected useful life, design capacity, or function of the facility and during which operations may be suspended and then resumed. Improvements may include, but are not limited to: Replacement/upgrade of control valves, in-core monitoring devices, facility air filtration systems, or substation transformers or capacitors; addition of structural bracing to meet earthquake standards and/or sustain high wind loading; and replacement of aboveground or belowground tanks and related piping if there is no evidence of leakage, based on testing that meets performance requirements in 40 CFR part 280, subpart D (40 CFR part 280.40). This includes activities taken under RCRA, subtitle I; 40 CFR part 265, subpart J; 40 CFR part 280, subparts B, C, and D; and other applicable state, Federal and local requirements for underground storage tanks. These actions do not include rebuilding or modifying substantial portions of a facility, such as replacing a reactor vessel.

Rational for determination:

The State of Nebraska will provide $500,000 in Recovery Act funds to Herd Co. for the purchase and installation of a combined heat and power (CHP) system. The system will replace Herd's existing propane boiler. The proposed project will gasify 30 tons-per-day of manure to power an adjacent 14,000 lb/hr boiler. The farm manure is currently used as fertilizer, which has reached the point of over nutrification of the fields and potential contamination of the ground water. The site is located over the Ogallala Aquifer; one of the largest aquifers in the country. All steam and power generated in the process will be used by Herd at the Feedlot.

The project is located at the Herd Co. Feedlot in the unicorporated town of Bartlett in Wheeler County, NE. All equipment will be installed within the existing boundaries of the farm. The site is not a wetland or a place of historical or cultural importance. The new boiler will be installed in the vicinity of the existing boiler on an 80-foot by 160-foot concrete pad covered by a steel frame shelter. The existing boiler will need to remain in operation until the new system is in operation. Underground electric and steam lines will connect the new facility with existing infrastructure. No new roads will be constructed. All trenching will occur on previously disturbed land and will be backfilled after the pipes and wires are laid.

There will be a 15% ash byproduct of the gasification process. The ash will have multiple uses onsite as cattle pen stabilization, road stabilization, and fertilizer. Any ash not used on site will be sold either as fertilizer or to a local concrete plant. The boiler will be regulated and controlled to meet or exceed EPA and State of Nebraska air emission limits. The applicant has initiated the permitting process for construction and operation permits from Wheeler County and the Nebraska Department of Environmental Quality.

The project is fully within the farm's boundaries and on previously disturbed land, requires proper permiting before operation of the plant can commence, and reflects an energy efficient and environmentally friendly approach over current operations. Based on the above, the project is consistent with activities identified in Categorical Exclusion B5.1 and B2.5.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

According to the Project Officer, the funding associated with this project is $500,000. Unless the scope of the project changes significantly, a change in funding will not affect my determination.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____ Date: 4/28/10

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