Department of Energy
Golden Field Office
1617 Cole Boulevard
Golden, Colorado 80401-3393

September 29, 2008

DOE/EA 1628

MITIGATED FINDING OF NO SIGNIFICANT IMPACT for the CONSTRUCTION AND OPERATION OF THE PROPOSED LIGNOCELLULOSIC BIOREFINERY, POET PROJECT LIBERTY, LLC. EMMETSBURG, IOWA

Agency: United States Department of Energy, Golden Field Office

Action: Finding of No Significant Impact

Summary: The United States Department of Energy (DOE) conducted an Environmental Assessment (EA) and Notice of Wetland Involvement (NOWI) that analyzed the potential environmental impacts associated with the construction and operation of a proposed lignocellulosic biorefinery near Emmetsburg, Palo Alto County, Iowa. DOE, through its Golden Field Office, in Golden Colorado, would provide funding to POET Project LIBERTY, LLC, an Iowa based corporation, to support the construction and initial operation of the proposed plant. All discussion, analysis, and findings related to the potential impacts of construction and operations of the proposed lignocellulosic biorefinery, including the applicant-committed mitigation measures, are contained in the Final EA and NOWI and the associated Mitigation Action Plan (MAP). The Final EA and NOWI and MAP are hereby incorporated by reference.

The proposed project would include construction and operation of an integrated biorefinery including a lignocellulosic ethanol production facility, a solid fuel boiler system that would use spent solids from the lignocellulose based ethanol system to produce process steam, and an anaerobic digestion system that would produce biogas for use at the biorefinery from the treatment of wastewater for use on-site. The biorefinery would use corn cobs from local farms as the primary source of cellulose for the process with corn fiber from the existing conventional POET – Emmetsburg ethanol plant being a potential secondary source of cellulose. POET would require a minimum of 770 BDT/day of lignocellulose. This may consist of all cobs or a mixture of cobs and up to approximately 190 BDT/day of corn fiber. The ethanol would be sold as fuel for transportation.

In accordance with the applicable regulations and policies, DOE sent scoping letters to potentially interested local, state, and Federal agencies, including the U.S. Fish and Wildlife Service, the Iowa Department of Natural Resources, the Iowa Department of Transportation, and the Iowa State Historical Preservation Office. DOE also sent scoping letters to other potentially interested individuals and organizations to solicit public comment. DOE published the Scoping Letter on-line at the DOE Golden Reading Room. The scoping letter described the Proposed Action and requested assistance in identifying potential issues that could be evaluated in the EA. In response to the scoping letters, DOE did not receive any comments from individuals, organizations, or agencies raising any specific objections or concerns about the Proposed Action.

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On August 28, 2008, the Draft EA and NOWI for Project LIBERTY was posted to the Golden Field Office online public reading room, Notice of Availability postcards were mailed to potentially interested parties, and a public notice was published in a local newspaper announcing the availability of the draft EA and NOWI and inviting comments on the draft. DOE did not receive any comments on the draft EA and NOWI.

DETERMINATION

DOE determines that providing funding to support the construction and initial operation of the proposed lignocellulosic biorefinery, POET Project LIBERTY, LLC near Emmetsburg, Iowa would not constitute a major Federal Action significantly affecting the quality of the human environment, as defined by the National Environmental Policy Act. The following applicant-committed mitigation measures identified in the Final EA shall be incorporated and enforceable through the DOE's Technology Investment Agreement with POET Project Liberty, LLC.

1. Complete an ambient air quality modeling analysis for the combined biorefinery to demonstrate that the facility will not cause or contribute to a potential exceedance of the National Ambient Air Quality Standards or redesign the facility and/or its pollution control equipment to reduce the ambient air quality impacts until the potential exceedance was no longer indicated.

2. Deed land to Palo Alto County for construction of a right turn lane on 470th Street to minimize traffic interruptions on 470th. Collect traffic data and complete a traffic Level of Service (LOS) analysis on 380th at the Existing Plant entrance and 470th Street at the proposed Project LIBERTY entrance prior to initiating construction of Project LIBERTY. Collect traffic data and complete a LOS analysis during construction and operation of Project LIBERTY. In the event that the LOS is degraded to a level below a "C" Threshold during construction and/or operation of Project LIBERTY, DOE will require POET to propose and implement additional mitigation measures sufficient to achieve a LOS "C".

3. Use only enzymes and yeast strains for fermentation that have been approved for commercial sale.

4. Monitor the groundwater elevations in the on-site monitoring wells as an indicator of potential interference with nearby wells. In the unlikely event that well interference is observed, POET will proactively participate in informal negotiations and/or settlement procedures as outlined by Iowa Administrative Code 567-54. Actions that may be taken include lowering the pump in the affected well, drilling a replacement well, or extending the water line from the Emmetsburg Municipal Utilities District (District) and connecting the affected party to the District system.

5. Review and revise the existing Integrated Contingency Plan (ICP), Emergency Response Plan (ERP), Process Safety Management (PSM) program for the hazardous materials that will be stored and used on site.

6. Prepare a Storm Water Pollution Prevention Plan (SWPPP) and revise the existing SWPPP for operations of Project LIBERTY.

7. Enter into contractual terms with Northern Natural Gas Company (NNG) to ensure that appropriate wetland impacts are minimized and appropriate mitigation measures are taken by NNG during construction of natural gas pipelines associated with Project LIBERTY.

Mitigation measures identified in the MAP shall be incorporated and enforceable through DOE's Technology Investment Agreement with POET Project LIBERTY, LLC. DOE will require POET to

demonstrate successful metrics for each criterion identified in this MAP. POET will provide copies of the studies, documents and contracts specified in the Mitigation Action Plan to the DOE to document completion of each of the above commitments. In the event that any of the metrics identified are not met successfully, DOE will require POET to propose and implement additional mitigation measures until success is demonstrated.

The preparation of an environmental impact statement is not required and the DOE is issuing this Finding of No Significant Impact.

Copies of the Final EA are available at the DOE Golden Field Office Public Reading Room website at http://www.eere.energy.gov/golden/reading_room.aspx or from:

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Manager