AUG 09 2010

MEMORANDUM FOR: ANTHONY V. CUGINI
DIRECTOR, NATIONAL ENERGY TECHNOLOGY LABORATORY

FROM: R. PAUL DETWILER
DIRECTOR, OFFICE OF PROJECT FACILITATION AND COMPLIANCE

SUBJECT: Environmental Assessment Determination for the Midwest Regional Carbon Sequestration Partnership (MRCSP) Phase III Michigan Basin Project in Chester Township, Michigan

The National Energy Technology Laboratory has determined, following a review of the National Environmental Policy Act Implementing Procedures, that preparation of an environmental assessment (EA) constitutes the appropriate level of environmental review for the proposed project to inject carbon dioxide (CO_2) from a natural gas processing plant into a deep saline aquifer.

The Department of Energy's (DOE's) proposed action is to provide approximately $65.5 million in financial assistance in a cost-sharing arrangement with the project proponent, MRCSP. MRCSP's proposed project would use CO_2 captured from an existing natural gas processing plant in Chester Township, pipe it approximately 1 mile to an injection well, and inject it into a deep saline aquifer for geologic sequestration. This project would demonstrate the geologic sequestration of 1,000,000 metric tons of CO_2 over a 4-year period. Monitoring would occur during the 4 years of injection and for 4 years following completion.

A copy of the EA Determination for the proposed action is attached. Please direct any questions regarding this Determination to Pierina Fayish at (412) 386-5428.

Attachment

DISTRIBUTION:
R. Carabetta
P. Detwiler
S. Klara
S. Plasynski
J. Litynski
T. Rodosta
P. Fayish
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ENVIRONMENTAL ASSESSMENT DETERMINATION

In accordance with authorities delegated to me pursuant to Section 5(a) (8) of Department of Energy Order 451.1B National Environmental Policy Act (NEPA) Compliance Program, and based on supporting analyses and recommendations by my staff, I have determined that an Environmental Assessment (EA) is the appropriate level of review and documentation for a proposed action to support the following project:

A. Project

Title: Midwest Regional Carbon Sequestration Partnership (MRCSP) Phase III Michigan Basin Project

Location: Chester Township, (Otsego County) Michigan

Participant: Midwest Regional Sequestration Partnership (MRCSP). The MRCSP lead for this project is Battelle Memorial Institute

B. Description of Proposed Project

The Department of Energy (DOE) proposes to provide $65.5 million in cost-shared funding to MRCSP for the Phase III project. MRCSP's proposed project would use the CO_2 captured from a natural gas separation and compression facility, which is owned and operated by Core Energy. The facility currently produces 640 metric tons per day of high purity CO_2 which is removed from the natural gas produced from Antrim shales in the area. Core Energy would approximately double the size of the plant to accommodate the Phase III test. Changes to the plant constitute a connected action and would be analyzed in the Environmental Assessment. The CO_2 from the plant would be transported through a one-mile buried pipeline to the injection well location. The injection well would be located within a Michigan Department of Natural Resources (DNR) "Military Land" management area adjacent to Camp Grayling Military Reservation. It is one of six management areas in the state and is classified as development with restrictions. A total of one million metric tons of CO_2 would be injected into the St. Peter Sandstone over a four-year period; a secondary storage formation would be the Bass Island Dolomite.

Monitoring, verification, and accounting (MVA) activities will be conducted during the four-year injection period, and for four years after its completion.

The project will require an Underground Injection Control (UIC) permit from Michigan.

C. Alternatives

Under the No Action Alternative, DOE would not provide funds for the proposed project. As a result, the continued demonstration of large-scale, long-term geologic sequestration of CO_2 would not occur. In addition, the CO_2 from the gas separation plant would be vented to the atmosphere. Both of these results would adversely affect the U.S. strategy to reduce greenhouse gas emissions.

D. Scoping Activities

Internal scoping activities to identify significant issues associated with the proposed project included reviewing the proposed technology, equipment and operational requirements, the environmental setting for the proposed project, and other information available on the project.

Scoping activities to date have included: internal discussions of the project and its potential environmental implications; discussions with the industrial participant; DOE review of preliminary environmental information supplied by the project participant; and preliminary characterization of background conditions.

E. Determination

Based on the scope of the proposed project, the potential for the project to result in no significant impacts, and the absence of extraordinary circumstances that might affect the significance of the proposed project's environmental consequences, I have determined that EAs are the appropriate level of analysis under DOE's National Environmental Policy Act (NEPA) Implementing Procedures. The proposed project can be categorized within the following group of actions listed in Appendix C to Subpart D of the DOE NEPA Implementing Procedures (Categories of Actions that Normally Require EAs but not Necessarily EISs):

C12 Siting, construction, and operation of energy system prototypes including, but not limited to, wind resource, hydropower, geothermal, fossil energy, biomass, and solar energy pilot projects

Agencies within the host state of Michigan will be notified of our intention to prepare an EA for the selected project and will be provided the opportunity for involvement in establishing the scope of the environmental reviews prior to final analysis and decision making. They will also be provided the opportunity to comment on and contribute input to the environmental analyses. As part of the decision-making process, public participation in development of the EA will be solicited.

All input received through public involvement and coordination processes will be considered in our environmental analyses and in the development of the final EA, which will form the basis for DOE decision-making on the environmental significance of the proposed action.

Scott M. Klara

8-9-10

Anthony V. Cugini
Director
National Energy Technology Laboratory

Date