

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

APR 03 2012

Mr. Chris Benton
Manager Environmental Permitting
Enterprise Products Operating LLC
P.O. Box 4324
Houston, TX 77210

Subject: Completeness Determination for the Enterprise Products Operating LLC Greenhouse Gas Prevention of Significant Deterioration (PSD) Permit Application

Dear Mr. Benton:

This letter is in response to your Greenhouse Gas (GHG) Prevention of Significant Deterioration (PSD) permit application dated December 21, 2011 and received in our office on December 23, 2011. After an initial review of your application we have determined that additional information is necessary in order to begin the processing of the permit. Enclosed is a list of the information required.

Upon the receipt of this information, the Environmental Protection Agency (EPA) will begin the process of developing a Statement of Basis and rationale for the terms and conditions for a draft PSD permit. As we develop our preliminary determination and draft permit, it may be necessary for the EPA to request additional clarifying or supporting information. Supplemental information on one or more parts of the application may be required before we can propose a draft permit. If the supporting information substantially changes the original scope of the permit application, an amendment or new application may be required.

While not required for the completeness determination, the EPA may not issue a permit until it has been established that the issuance of the permit will have no impact on endangered species pursuant to Section 7 of the Endangered Species Act. In addition, the EPA must complete a consultation in accordance with Section 106 of the National Historic Preservation Act. To expedite these consultations, the EPA requests that the permit applicants provide a biological assessment and cultural resources report covering the project and action area. We request that you submit this information as early as possible, so that the EPA may issue a permit at the earliest possible time, and within the timeframes required by statute.



If you have any questions regarding the review of your permit application, please contact Aimee Wilson of my staff at (214) 665-7596 or wilson.aimee@epa.gov.

Sincerely yours,

Carl E. Edlund, P.E.

Director

Multimedia Planning and
Permitting Division

cc: Mr. Steve Hagle, P.E., Deputy Director
Office of Permitting and Registration
Texas Commission on Environmental Quality

Mr. Mike Wilson, P.E., Director
Air Permits Division
Texas Commission on Environmental Quality

Enclosure

EPA Comments on Enterprise Products Operating (Enterprise) Greenhouse Gas Permit Application Application dated December 21, 2011

BACT Analysis

1. The application provides a five-Step BACT analysis for Carbon Capture and Sequestration (CCS) and concludes that the use of this technology is economically unviable. A more detailed cost analysis with a comparison to the current project's annualized cost needs to be provided to support a determination of economic unviability.
2. The current BACT analysis does not appear to provide adequate information in the five-Step BACT analysis. Step 1 does not appear to identify all potential control technologies that are available. Step 2 does not identify if energy efficient design or use of other low carbon fuel are options. In Step 3, the applicant should provide information on control efficiency, expected emission rate, and expected emission reductions. The applicant should provide a comparative benchmark study to indicate other similar industry operating or designed units and compare the design efficiency of this process to other similar or alike processes. The applicant should then use this information to rank the control technologies. A comparison of equipment energy efficiencies is necessary to ensure that the most energy efficient equipment and control technology are selected. Please provide an analysis that shows the most efficient heaters were selected. This information is then also available to use in determining BACT limits for the emission units for which these technologies are applied in Step 5. Where appropriate, net output-based standards provide a direct measure of the energy efficiency of an operation's emission-reducing efforts. For example, the energy efficiency of the heaters should be tied to a BACT limit. This limit could be established in pounds of CO₂ per MMBtu produced or some other appropriate efficiency measure.

Also, Step 4 should provide an analysis of the economic, energy, and environmental impacts arising from each control option reviewed in Step 3. This should demonstrate why the top control technology is determined to be appropriate or inappropriate. This information may be exceedingly important when eliminating CCS or other control technologies from consideration. Enterprise should supplement the BACT analysis to provide all necessary information required in Steps 1, 2, 3, and 4 of the 5 Step BACT analysis.