

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

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

NOV 13 2012

Ms. Lynn Ward
Senior Environmental Specialist
DCP Midstream, LP
Jefferson County NGL Fractionation Plant
662 S. Shelby
Carthage, TX 75633

RE: Completeness Determination for DCP Midstream, LP
Greenhouse Gas Prevention of Significant Deterioration Permit Application
Jefferson County Natural Gas Liquids (NGL) Fractionation Plant

Dear Ms. Ward:

This letter is in response to your application received by this office on July 10, 2012 for a Greenhouse Gas Prevention of Significant Deterioration permit. After our review of the application and supporting information, we have determined that this application is incomplete based on the requirements of 40 CFR 124 and additional information is required to begin the processing of the draft application. Enclosed is a list of the additional information required (see Enclosure).

Upon receipt of the additional information, the Environmental Protection Agency (EPA) will prepare another completeness determination. The requested information is necessary for EPA to develop a Statement of Basis and Rationale for the terms and conditions for the requisite permit. As we develop our preliminary determination, it may be necessary for EPA to request additional clarifying or supporting information. If the supporting information substantially changes the original scope of the permit application, an amendment or new application may be required.

The EPA may not issue a final permit without determining that: 1) there will be no effects on threatened or endangered species or their designated critical habitat, or 2) until it has completed consultation under Section 7(a)(2) of the Endangered Species Act (16 USC § 1536). In addition, the EPA must undergo consultation pursuant to Section 106 of the National Historic Preservation Act (NHPA) (16 USC § 470f). As a reminder, NHPA implementing regulations require that EPA provide information to the public with an opportunity for participation in the Section 106 process. 36 CFR § 800.2(d). We look forward to receiving the Biological Assessment and Cultural Resources Reports that you have agreed to prepare for EPA for our use in complying with these statutes.

If you would like to schedule a conference call to discuss our concerns, please contact Melanie Magee of my staff at (214) 665-7161.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Carl Edlund". The signature is fluid and cursive, with a long horizontal stroke at the end.

Carl E. Edlund, P.E.

Director

Multimedia Planning and
Permitting Division

ENCLOSURE

**EPA Information Request
DCP Midstream, LP
Application for Greenhouse Gas Prevention of Significant Deterioration Permit
Jefferson County NGL Fractionation Plant**

1. Being mindful of EPA's PSD and Title V Permitting Guidance for GHG dated March, 2011 on page 17, which states the following:

“The CAA and corresponding implementing regulations require that a permitting authority conduct a BACT analysis on a case-by-case basis, and the permitting authority must evaluate the amount of emissions reductions that each available emissions-reducing technology or technique would achieve, as well as the energy, environmental, economic and other costs associated with each technology or technique. Based on this assessment, the permitting authority must establish a numeric emissions limitation that reflects the maximum degree of reduction achievable for each pollutant subject to BACT through the application of the selected technology or technique. However, if the permitting authority determines that technical or economic limitations on the application of a measurement methodology would make a numerical emissions standard infeasible for one or more pollutants, it may establish design, equipment, work practices or operational standards to satisfy the BACT requirement.”

In addition to the proposed tons per year emission limit provided in the permit application, please propose an output based emission limitation or efficiency based limits for all GHG emission sources (e.g., lb or ton CO₂/bbl of NGL processed). Please provide an analysis that substantiates any reasons for infeasibility of a numerical emission limitation. For the emission sources where numerical emission limitations are infeasible, please propose an operating work practice standard that can be practically enforceable.

2. Please provide supplemental information pertaining to the Amine Storage Tanks, Process Waste Water Tanks and the Hydrogen Waste Storage Tanks for the three trains. Is DCP indicating in the application that there will not be any GHG emissions from the storage tanks? Will all vent emissions from these tanks be routed to the flare, and the GHG emissions result from the combustion of these vents at the flare? Please provide supplemental data to clarify if the fugitive emissions presented in the application also includes fugitive emissions from the storage tanks.
3. Beginning on page 5-3 of the permit application, the BACT analysis for the turbines, thermal oxidizer, hot oil heaters and regeneration heaters states that “efficient process controls” will be utilized. Please provide supplemental data or details detailing what measures or “process controls” will be utilized to substantiate this statement. If available, please provide benchmark data that compares proposed process controls to similar or existing sources detailing any efficiency gains that the “process controls” will provide. What is the proposed monitoring and operating strategy to be employed using the process controls and its effectiveness on improving operating efficiency? Also, the BACT analysis states that good combustion practices and scheduled maintenance that follow manufacturer recommendations will be used. The application's appendix includes examples of practices that can be utilized. Please provide supplemental data that specifically details the practices that will be used to ensure proper

combustion and the maintenance schedule for the proposed equipment. What will be the recordkeeping requirements?

4. The BACT analysis does not include an efficiency rating for the hot oil heaters and regeneration heaters and fire water pump engine. Please provide any supplemental technical data that includes the percent efficiencies for the proposed equipment. Were other equipment designs evaluated for this project? Please provide reasons for elimination from the applicant's BACT proposal. Also, please include benchmark data that compares the selected equipment efficiencies to other existing or similar equipment or permitted sources.
5. On page 5-17 of the permit application, the BACT analysis states that the Solar Centaur turbines operate at a thermal efficiency of 28% and a power rating of 4700 brake horsepower (bhp). One other turbine, Siemens SGT 100, identified by DCP operates with a thermal efficiency of 33% and a power rating of 7640 bhp. Although, the Siemens is more efficient, DCP proposes to use the Solar Centaur because DCP proposes to install two turbines per train. The installation of the two turbines per train would increase the CO_{2e} emissions. Were other turbine designs or a different configuration that involves a combination of turbines evaluated for this project? If so, please include the reasons for elimination and any data that evaluated the efficiencies of the configurations or turbine combinations. Since Siemens has a higher efficiency and power rating, can one Siemens turbine be used for this project instead of two Solar Centaur turbines? Please provide comparative benchmark data to other similar or other permitted existing sources.
6. Please provide the proposed monitoring strategy for the Waste Heat Recovery System (WHRS) to ensure that the system is operating efficiently. Please indicate any operating parameters you are proposing to ensure heat recovery efficiency.
7. What is the preferred compliance monitoring, recordkeeping and reporting for the turbines, hot oil heaters, regeneration heaters and thermal oxidizers? Will continuous emission monitoring be utilized? (e.g., O₂, CO₂) What is the proposed monitoring strategy for composition of the waste gas streams sent the thermal oxidizer and the flare?
8. On page 5-36 of the permit application, it states that the leak detection and repair program (LDAR) that DCP proposes to utilize is the TCEQ 28M program. Were other TCEQ LDAR programs or technologies evaluated to reduce methane fugitive emissions (e.g., alternative monitoring program using a remote sensing technology such as infrared camera monitoring, monitoring flanges for leaks)? If so, why were they eliminated? Also, the process flow diagram indicates four fugitive emission sources. These fugitive emission sources include the equipment fugitives from the three trains (FUG1, FUG2 and FUG3) and product metering equipment fugitives (FUG4). The fugitive emissions for FUG4 are not included in the fugitive emission table on page 5-37 and in the fugitive emission calculations found in Attachment B. Please provide supplemental data that includes the calculations for FUG4 and revisions to the table on page 5-37 to include these fugitive emission rates.
9. On page 5-39 of the permit application, the BACT analysis for the flare indicates that the plant will be operated in such a way as to minimize release streams sent to the flare. Please provide supplemental data that discusses plant procedures that will be implemented to reduce releases. Please provide supplemental design data for the flare, i.e., percent destruction efficiency, proposed monitoring and recordkeeping strategy, maintenance schedule, total vent flow measurement, etc.