

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

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

JUN 27 2012

Ms. Lynn Ward  
Senior Environmental Scientist  
DCP Midstream, LP  
662 S. Shelby  
Carthage, TX 75633

RE: Completeness Determination for DCP Midstream, LP – Hardin County NGL  
Fractionation Plant Application for Greenhouse Gas Prevention of Significant  
Deterioration Permit for the Natural Gas Liquids Fractionation Facilities

Dear Ms. Ward:

This letter is in response to your application dated May 24, 2012, to the Environmental Protection Agency (EPA) for a Greenhouse Gas Prevention of Significant Deterioration permit. EPA received this application on May 25, 2012. After our initial review of your application and all supporting information, we have determined that this application is incomplete (40 CFR 124) and additional information is required to consider it complete. Enclosed is a list of additional information required.

Upon receipt of the additional information, we will review it for completeness. If complete, we will issue a completeness determination on the technical information of your application. The information requested is necessary for EPA to develop a Statement of Basis and rationale for the terms and conditions for a draft permit. As we develop our proposed 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.

While not required for the completeness determination, the EPA may not issue a final permit without determining that its action will have no effect on threatened or endangered species and their designated critical habitat or until it has completed consultation under Section 7 of the Endangered Species Act. In addition, the EPA must undergo consultation pursuant to Section 106 of the National Historic Preservation Act. To expedite these consultations, the EPA requests that permit applicants provide a biological assessment and a 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. At this time, DCP Midstream (DCP) may request designation as a non-federal representative of the EPA to the U.S. Fish and Wildlife Service, and the National Marine Fisheries Service if necessary, for preparation of a biological assessment and for purposes of informal consultation under Section 7 of the Endangered Species Act.



If you have any questions concerning the review of your application, please contact Aimee Wilson of my staff at (214) 665-7596.

Sincerely yours,

Carl E. Edlund, P.E.  
Director  
Multimedia Planning and  
Permitting Division

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

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## ENCLOSURE

### EPA Comments on DCP Midstream Greenhouse Gas Prevention of Significant Deterioration Permit Application Dated May 24, 2012

#### General

- 1) For the thermal oxidizers, please indicate which waste gases are continuous and which are intermittent. Please provide the anticipated composition of each waste stream if known. Will these waste gases have a gas composition analyzer? Also, the applicant should provide comparative benchmark data to indicate other similar industry operating or designed units and compare the destruction removal efficiency of this process to other similar or equivalent processes.
- 2) The permit application does not propose any compliance monitoring for the compression turbines, hot oil heaters, molecular sieve dehydrator regeneration heaters, fire water pump engine, and thermal oxidizers. EPA requests that DCP Midstream propose its preferred monitoring, recordkeeping, and reporting strategy to ensure enforceability of the BACT requirements pursuant to 40 CFR Section 52.21(n). For the two thermal oxidizers and the compression turbines, we are currently assuming that Continuous Emission Monitoring System (CEMS) is the preferred method followed by parametric fuel monitoring with emission factors, etc.

#### BACT Analysis

- 3) Annual ton per year emission limits, for each emission unit, are not considered BACT limits. BACT limits for GHG emission units should be output based limits preferably associated with the efficiency of individual emission units. Please propose short-term emission limitations or efficiency based limits for emission sources in the application. For the emission sources where this is not feasible, please propose an operating work practice standard. Please provide detailed information that substantiates any reasons for infeasibility of an output based limit.
- 4) DCP provides a five-step BACT analysis for the turbines. DCP selected the use of high efficiency turbines as BACT. The application only shows efficiency data for the selected Solar Centaur turbines and for the Siemens SGT-100 Industrial Gas Turbine. Were any other manufacturer's turbines reviewed? A reason given in the application, on page 5-17, for not selecting the Siemens turbines was DCP wants to install 2 turbines per train and the emissions from two Siemens turbines was higher than 2 Solar Centaur turbines. The Siemens turbines have a higher power rating than the Solar Centaur turbines, did DCP consider if one Siemens turbine would be sufficient for operations? Could other combinations of turbines be used that would provide a higher efficiency and lower emissions? In order to support the selection of the proposed combustion turbine model, please supplement this comparative analysis with additional data that includes production

output, gross heat rate, and percent efficiency of each existing or similarly designed combustion turbine.

- 5) Please provide efficiency or output based benchmarking information related to the flare. What is the DRE of the flare? Do any of the tank vent gases going to the flare contain methane? Is the flare air assisted, steam assisted, or unassisted?
- 6) Please provide benchmarking information for the hot oil heaters, molecular sieve dehydrator regeneration heaters, and fire water pump engine.
- 7) The BACT analysis for the emergency firewater pump engine, thermal oxidizers, hot oil heaters, and regeneration heaters all select performing recommended maintenance per manufacturer's recommendation. Please specify the schedule for performing such maintenance.
- 8) For the process fugitives BACT, on page 5-36, it is stated that the applicant will implement the TCEQ 28M Leak Detection and Repair (LDAR) program. Will an enhanced 28M program which would include instrumented monitoring for methane (CH<sub>4</sub>) be utilized? Also, it does not appear that DCP considered the TCEQ 28LAER program with other possibilities of reducing fugitive emissions and leaks as part of its BACT analysis. Did the BACT analysis consider 28LAER as the highest available control option? If not, why? Please further refine the BACT analysis for fugitive emissions.
- 9) The application discusses that tank vapors are controlled by the flare which will generate GHG emissions. Therefore, since GHG emissions are created from the combustion of VOC tank vapors, a BACT analysis is required for the tanks. Please be sure to incorporate into the tank BACT the factors that were considered when comparing internal floating roof (IFR), external floating roof (EFR) and fixed roof. Do the fixed roof tanks have submerged fill? Please provide any other additional information of the tanks such as, did the applicant choose to have the tanks painted white or another color of high refractive index to reduce vapor production? Also, please provide a detailed listing of all tanks and vessels that will vent to the flare, including the properties of the contained product.