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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS TX 75202-2733

MAY 0 4 2012

Mr. Vance Darr
Environmental Manager
PL Propylene LLC
9822 La Porte Freeway
Houston, TX 77017

Subject: Completeness Determination for the PL Propylene LLC Greenhouse Gas Prevention of Significant Deterioration (PSD) Permit Application

Dear Mr. Darr:

This letter is in response to your Greenhouse Gas (GHG) Prevention of Significant Deterioration (PSD) permit application dated February 3, 2012 and received in our office on February 7, 2012. 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.

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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,

Thomas Diggs for

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 PL Propylene LLC Greenhouse Gas Permit Application Application dated February 7, 2012

General

1. Please provide a copy of the corresponding permit application submitted to TCEQ for non-GHG pollutants for this project.

2. EPA is not aware of the quantity of non-GHG emissions from this project and whether it will be subject to PSD review by TCEQ. If the project is subject to PSD solely because of its GHG emissions and one or more of the non-GHG pollutants are emitted at or above the applicable PSD significant levels – as defined in 40 CFR 52.21(b)(23) – and below the applicable 100 or 250 TPY major source threshold, then Region 6 will issue the permit for not only GHGs, but for the other regulated NSR pollutant(s) emitted in a significant amount. Please submit supplemental information to substantiate that no other regulated NSR pollutants will increase in a significant amount. If any increases of non-GHGs will be significant, you must submit the applicability calculations with a five-step top down BACT analyses for the pollutant(s). You must also consult with us on the preparation and submission of air quality analyses to satisfy the requirements of 52.21(k), (m), (o) and (p), as may be applicable.

3. The application does not provide the production volume for the proposed modifications to the facility. How much propylene will the facility produce annually?

4. The application offers no recommendations for monitoring, recordkeeping, and reporting for the CO_2 emissions. Does PL Propylene have a preferred monitoring method for the proprietary combustion units, charge gas heater, regeneration heater, waste heat boiler, regenerative thermal oxidizer, and flare?

5. Will the process fuel gas be monitored using online instrumentation to determine the composition and the high heat value?

BACT Analysis

6. The application provides a five-step BACT analysis for Carbon Capture and Sequestration (CCS) and concludes that the use of this technology is technically infeasible. A general cost analysis is provided. Please supplement the cost analysis with details indicating the equipment needed to implement CCS, the costs of such equipment, the size and length of pipeline needed for transport, and provide site specific costs versus

a range of approximate costs. Also, we are requesting a comparison of the cost of CCS to the current project's annualized cost.

7. The current BACT analysis does not appear to provide adequate information in the five-step BACT analysis for the proprietary combustion units, charge gas heater, regeneration heater, waste heat boiler, regenerative thermal oxidizer, and flare. Step 2 does not provide detailed information on the energy efficiency measures. In Step 3, the applicant should provide information on control efficiency, expected emission rate, and expected emission reductions. The applicant should provide comparative benchmark information to indicating 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 available control technologies. A comparison of equipment energy efficiencies is necessary to evaluate the energy efficiency of the proposed equipment and possible control technologies. This information should also detail the basis for your BACT proposal 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. 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 all emission sources. 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 a numerical limit. PL Propylene should supplement the BACT analysis to provide all necessary information required in Steps 2, 3, and 4 of the five-step BACT analysis.

8. The BACT analysis provided does not evaluate the natural gas piping and fugitive emissions. Please provide a five-step BACT analysis for these emission units including the use of a leak detection and repair (LDAR) program.

Appendix A

9. The Table identified as "Appendix A-1 Summary" gives the firing rate for the combustion units. Are these values an annual average firing rate or a maximum firing rate?

10. The "Appendix A-1 Summary" Table also shows the proprietary combustion units, regeneration air heater, and waste heat boiler to have the same EPN. Do these units vent to a common stack?

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