

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

Mr. Gary Clark  
Asset Manager  
Victoria Power Station  
Victoria WLE LP  
1205 South Bottom Street  
Victoria, Texas 77901

NOV 27 2013

RE: Victoria Power Station, Victoria WLE LP, Application for a Prevention of Significant Deterioration Air Permit for Greenhouse Gas Emissions

Dear Mr. Clark

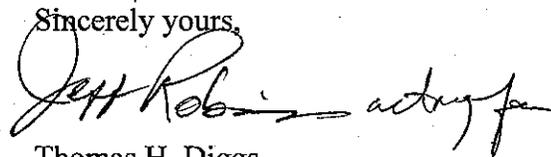
The EPA has reviewed your Greenhouse Gas (GHG) Prevention of Significant Deterioration (PSD) permit application, including supporting documentation, for Victoria Power Station, Victoria WLE LP that was received by the EPA on February 15, 2013, and determined that your application is incomplete at this time. A list of the information needed from you so that the EPA can continue its completeness review is enclosed (see Enclosure). Please notify us if a complete response is not possible by December 16, 2013.

The requested information is necessary for EPA to develop a Statement of Basis and Rationale for the terms and conditions for any proposed 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). If you have not already submitted the Biological Assessment and Cultural Resources Reports that you have agreed to prepare for EPA, we look forward to receiving these reports and continuing to work with you to comply with these statutes.

If you have any questions regarding the review of your permit application, please contact Melanie Magee of my staff at (214) 665-7161 or [magee.melanie@epa.gov](mailto:magee.melanie@epa.gov).

Sincerely yours,

A handwritten signature in black ink, appearing to read "Jeff Robins acting for". The signature is written in a cursive style.

Thomas H. Diggs  
Associate Director  
Air Programs Branch

Enclosure

## ENCLOSURE

### EPA Completeness Comments Application for Greenhouse Gas Prevention of Significant Deterioration Permit Victoria Power Station

1. On page 1-1 of the permit application, it is stated that "A new chiller will replace the existing evaporative cooler used with the existing turbine to allow the existing turbine to operate more efficiently during the summer months." Please provide additional technical information to support improved turbine efficiency provided by the new chiller.
2. On page 1-1 of the permit application, it is stated that "The existing cooling tower will be modified to increase its capacity, and an additional aqueous ammonia (NH<sub>3</sub>) storage tank and associated piping will also be installed." Please provide the capacity of the modified cooling tower. Please update the process flow diagram (Figure 4-1) to reflect the ammonia storage tank and the cooling tower.
3. On page 1-1 of the permit application, Victoria proposes to retain the capability to operate in a 1x1x1 configuration after the installation of the second combustion gas turbine and heat recovery steam generator (HRSG). Please explain the reasons why this would be necessary? Will the annual GHG emission limit that is proposed on page 5-3 remain the same for this operating scenario?
4. On page 4-2 of the permit application, it states that "Total gross design capacity of the plant will increase from approximately 290 MW to 545 MW of generation power." Please provide the design capacity (gross and net) in MW for each unit (i.e., the existing combustion gas turbine, the new combustion gas turbine and the steam turbine) separately.
5. On page 5-3, Victoria has proposed a ton per year annual emission limit. EPA will issue an output-based BACT emission limit (e.g., lb/MWh), or a combination of an output-based and input-based limit, or an efficiency based limit. For the gas combustion turbine under consideration for this project, please propose (1) an output-based limit, or (2) a combination of an output-based and input-based limit, or (3) an efficiency based limit. Please include all calculations to support the proposed BACT limits.
6. On page 5-3 of the permit application, please revise Table 5-1, entitled "Proposed GHG Emission Limits." This table should include not only the proposed GHG emission limits for the new sources but also the increased GHG emissions for the affected sources. The proposed emission limits in this table do not appear to include the GHG emission increases that result from the installation of the inlet chiller to the existing turbine. Please provide this supplemental information.
7. Victoria's BACT analysis does not appear to compare the selected turbine model to other available combustion turbines. Since efficient turbine designs can vary among turbines, please provide supplemental data to the BACT analysis if other turbines were evaluated for this project and why they were eliminated. If a more efficient design was evaluated and eliminated, please explain why. Also, please provide supplemental data that explains why the turbine selected is the most efficient for this source.

8. On page 6-2 of the permit application, it states that “the proposed plant design results in the lowest possible GHG emission rate per kwh of electricity generated of all available fossil fuel fired electric generation technologies.” Please provide the efficiency and loading curve for the new turbine.
9. On page 6-12 of the permit application, it states that BACT is determined to be normal plant maintenance practices as needed for safety and reliability purposes. Please provide supplemental data that discusses the details of what these maintenance practices will involve. What is the proposed compliance strategy including record keeping, schedule, and protocol for equipment repairs? Is there a preferred TCEQ LDAR method? Please provide supplemental data that includes the basis for utilizing this preferred method versus other potential methods.
10. BACT is a case-by-case determination. Please provide site-specific facility data to evaluate and eliminate carbon capture sequestration (CCS) from consideration as an add-on control for BACT. The suggested data that will be helpful includes detailed information on the quantity and concentration of CO<sub>2</sub> that is in the flue gas stream and the necessary equipment for capture, transportation and storage. In addition, the capital cost of construction, annual operation and maintenance cost for a CCS system will be helpful as well. Please discuss in detail any site-specific safety or environmental impacts associated with a CCS system. Also, please provide any additional technical and economic details for this project and its potential for installing a CCS system for recovering CO<sub>2</sub> for enhanced oil recovery (EOR) and non-EOR geologic sequestration.