

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6

1445 ROSS AVENUE, SUITE 1200

DALLAS, TX 75202-2733

FEB 14 2013

Mr. John Walsh
Director of Operations
Guadalupe Power Partners LP
5740 Weil Road
Marion, TX 78124

RE Completeness Determination for Guadalupe Power Partners LP
Greenhouse Gas Prevention of Significant Deterioration (PSD) Permit Application
Guadalupe Generating Station

Dear Mr. Walsh,

The EPA has reviewed your Greenhouse Gas (GHG) Prevention of Significant Deterioration (PSD) permit application for Guadalupe Power Partners LP that was received by the EPA on November 12, 2012, including supporting documentation, 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 March 1, 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). Please confirm your commitment to prepare the Biological Assessment and Cultural Resources Reports for EPA's use in complying with these statutes.

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

Sincerely yours,

A handwritten signature in blue ink, appearing to read "D. F. Garcia".

David F. Garcia
Acting Director
Multimedia Planning and
Permitting Division

ENCLOSURE

EPA Information Request Guadalupe Power Partners LP – Guadalupe Generating Station Application for Greenhouse Gas Prevention of Significant Deterioration Permit

1. Page 2-1 of the permit application, includes a list of four simple cycle combustion turbines that are currently being evaluated and considered for this project. Please provide supplemental data that includes production output, gross heat rate and percent efficiency of each model currently being considered and please provide this data for similarly designed combustion turbines that have been recently permitted by air permitting authorities nationwide (this information may be represented graphically in load/efficiency curves).
2. Beginning on page 4-14, Guadalupe has proposed a ton per year emission and heat rate cap limit. EPA will issue an output-based BACT emission limit (e.g., lb/MWh) or a combination of an output- and input-based limit, where feasible and appropriate. For the four turbine models under consideration for this project, please propose an output-based or efficiency based limits for each combustion turbine train to be constructed. 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.
3. Beginning on page 4-3 of the permit application, the BACT discussion includes an evaluation of a combined cycle combustion turbine for this project. It is stated on page 4-9 that there are some combined cycle combustion turbine power plant designs that propose the use of fast or rapid start combustion turbines. Also on page 4-9 of the permit application, it is stated that the peaker plant must also be able to shut down quickly and be able to restart in response to the electrical demand. How many startups and shutdowns are anticipated for the proposed Guadalupe project? Also, include the rationale for the number of proposed startup and shutdowns. Please specify if these are cold or hot standby startups.
4. On page 4-5 of permit application, it states that for burner maintenance “there are three basic maintenance levels: combustion inspections, hot gas path inspections, and major overhauls.” Please provide supplemental details about each maintenance level such as what it involves, how often, monitoring and recordkeeping requirements.
5. On page 4-6 of the permit application, it states that “F-class combustion turbines have sophisticated instrumentation and controls to automatically control the operation of the combustion turbine...the control system monitors the operation of the unit and modulates the fuel flow and turbine operation to achieve optimal high-efficiency, low-emissions performance under all operating cases.” Please provide more information pertaining to the automation of the combustion turbine operation that will ensure optimal fuel combustion. Please provide supplemental information that discusses details of what operating parameters will be monitored

and how will it be used to determine that the turbines are operating at optimal efficiency and fuel combustion is occurring such as temperature, pressure, etc. How will proper air/fuel ratios be assured? What type of analyzers will be utilized? Will these analyzers provide continuous monitoring? Will there be manual overrides and alarms to alert on-site personnel to operating abnormalities? What is the company's proposed monitoring strategy (e.g. CEMs)?

6. Please provide site-specific facility information to evaluate and eliminate CCS from consideration. This information should contain detailed information on the quantity and concentration of CO₂ that is in the waste stream and the equipment for capture, storage and transportation. Please include cost of construction, operation and maintenance, cost per pound of CO₂ removed by the technologies evaluated and include the feasibility and cost analysis for storage or transportation for these options. Please discuss in detail any site specific safety or environmental impacts associated with such a removal system.
7. Please provide supplemental data to the 5-step BACT analysis for fugitives that include a comprehensive evaluation of the technologies considered to reduce fugitive emissions and a basis for elimination. The technologies could include, but are not limited to, the following:
 - Installing leakless technology components to eliminate fugitive emission sources;
 - Implementing an alternative monitoring program using a remote sensing technology such as infrared camera monitoring;
 - Designing and constructing facilities with high quality components and materials of construction compatible with the process known as the Enhanced LDAR standards;
 - Monitoring of flanges for leaks;
 - Using a lower leak detection level for components; and
 - Implementing an audio/visual/olfactory (AVO) monitoring program for compounds.
8. Please provide emission point numbers (EPNs) for the fugitive emissions and SF₆ circuit breaker and confirm the EPN for the diesel-fuel fire water pump engine to be FWP-2. Please supplement the process flow diagram with a representation of these GHG sources and associated EPNs.