

US EPA ARCHIVE DOCUMENT

Tenaska Roan's Prairie Partners, LLC
Tenaska Roan's Prairie Generating Station
Prevention of Significant Deterioration Permit for Greenhouse Gas Emissions
PSD-TX-1378-GHG

Summary of Revisions and Responses to Public Comments

U.S. Environmental Protection Agency
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I. Summary of the Formal Public Participation Process

The U.S. Environmental Protection Agency, Region 6 (EPA) proposed to issue a Prevention of Significant Deterioration (PSD) permit to the Tenaska Roan's Prairie Generating Station on May 28, 2014. The public comment period on the draft permit began May 28, 2014 and closed on June 27, 2014. EPA announced the public comment period through a public notice published in the *Navasota Examiner* on May 28, 2014 and on Region 6's website. EPA also notified agencies and municipalities on May 24, 2014 in accordance with 40 CFR Part 124.

The Administrative Record for the draft permit was made available at the EPA Region 6's office. EPA also made the draft permit, Statement of Basis and other supporting documentation available on Region 6's website, and available for viewing at the Navasota Public Library in Navasota, TX.

EPA's public notice for the draft permit also provided the public with notice of the public hearing. The public notice stated:

Any request for a public hearing must be received by the EPA either by email or mail by June 16, 2014, and must state the nature of the issues proposed to be raised in the hearing...EPA maintains the right to cancel a public hearing if no request for a public hearing is received by June 16, 2014, or the EPA determines that there is not a significant interest. If the public hearing is cancelled, notification of the cancellation will be posted by June 20, 2014 on the EPA's Website <http://yosemite.epa.gov/r6/Apermit.nsf/AirP>. Individuals may also call the EPA at the contact number listed above to determine if the public hearing has been cancelled.

During the comment period, EPA did not receive any written requests for a public hearing. EPA posted its announcement that there would not be a hearing on June 20, 2014. EPA received one comment letter from the Permittee on June 25, 2014 that was postmarked on June 27, 2014.

II. Update to Applicability Analysis

On June 23, 2014, the United States Supreme Court issued a decision addressing the application of stationary source permitting requirements to greenhouse gases (GHG). *Utility Air Regulatory Group (UARG) v. Environmental Protection Agency (EPA)* (No. 12-1146). The Supreme Court said that the EPA may not treat greenhouse gases as an air pollutant for purposes of determining whether a source is a major source required to obtain a Prevention of Significant Deterioration (PSD) or title V permit. However, the Court also said that the EPA could continue to require that PSD permits, otherwise required based on emissions of conventional pollutants, contain limitations on GHG emissions based on the application of Best Available Control Technology (BACT). Pending further EPA engagement in the ongoing judicial process before the District of Columbia Circuit Court of Appeals, the EPA is proceeding with this final permitting decision consistent with EPA's understanding of the Supreme Court's decision.

In this final permit decision, the EPA is continuing to apply the PSD BACT requirement to GHG emissions from Tenaska Roan's Prairie Generating Station.¹ This project is otherwise subject to PSD because it emits a regulated NSR pollutant other than GHG (specifically CO and NO_x) above the major source threshold. In addition, the proposed source emits or has the potential to emit 75,000 tons per year (tpy) or more of GHG on a carbon dioxide equivalent (CO₂e) basis (*see* 40 C.F.R § 52.21(b)(49)(iv); *PSD and Title V Permitting Guidance for Greenhouse Gases* (March 2011) at 12-13). TRPGS calculates total potential CO₂e emissions of 1,164,005 to 1,289,432 tpy, depending on final turbine selection. Since the Supreme Court recognized EPA's authority to limit application of BACT to sources that emit GHGs in greater than *de minimis* amounts, EPA believes it may apply the 75,000 tons per year threshold in existing regulations at this time to determine whether BACT applies to GHGs at this facility. Accordingly, this project continues to require a PSD permit that includes limitations on GHG emissions based on application of BACT.

III. EPA's Response to Public Comments

This section summarizes the public comments received by EPA and provides our responses to the comments. The EPA received one comment letter from the Permittee.

Comment: Permit condition III.A.3.b in the draft permit requires monthly fuel sampling and analysis to determine Gross Calorific Value (GCV). However, Condition IV.A.1.d. specifies semi-annual fuel sampling or other frequencies allowed by 40 CFR § 98.34(b)(3). Section 98.34(b)(3)(ii)(A) specifies semiannual sampling for natural gas. The Permittee requests a semi-annual frequency as allowed by 40 CFR § 98.34(b)(3).

Response: The 40 CFR § 98.34(b)(3) sets the minimum required sampling frequency as semi-annually but allows for more frequent sampling. The EPA rejects this proposed change since the permit is consistent with 40 CFR Part 75, Appendix G, § 2.1.1, which requires monthly fuel sampling and analysis.

Comment: Permit condition III.A.3.h.iii in the draft permit requires GCV to be determined monthly according to the procedures in 40CFR § 98.34(b)(3). However, section 98.34(b)(3)(ii)(A) specifies semi-annual sampling for natural gas. The Permittee requests a semi-annual frequency as allowed by 40 CFR 98.34(b)(3).

Response: The 40 CFR § 98.34(b)(3) sets the minimum required sampling frequency as semi-annually but allows for more frequent sampling. The EPA rejects this proposed change since the permit is consistent with 40 CFR Part 75, Appendix G, § 2.1.1, which requires monthly fuel sampling and analysis.

Comment: Permit condition III.A.4.c in the draft permit limits emissions during startup and shutdown in terms of tons per event. The Permittee wishes to confirm that these limits are averaged over 2,920 operational hours, consistent with the steady state BACT limits. In other words, compliance would be

¹ While our statement of basis indicated that 40 C.F.R § 52.21(b)(49)(v) was the basis of applicability for the permitting action, the application and record establish that 40 C.F.R § 52.21(b)(49)(iv) fits the facts of this project as a primary matter.

demonstrated after each combined startup/shutdown event by calculating total tons of emissions during all startups and shutdowns in the previous 2,920 operational hours and dividing by the number of events. This is consistent with the averaging period for the steady-state BACT limits as specified in Condition III.A.2.a.

Response: As a clarification, the startup and shutdown (SU/SD) emission limits in term of tons per event for the mentioned combustion turbine configuration options in the draft permit condition III.A.4.c are per event BACT emission limits. Compliance with these limits are based on each individual SU/SD event's emissions, and not based on the rolling SU/SD event average emissions scenario described by the commenter.

Comment: Permit condition III.E.b in the draft permit requires AVO monitoring on a daily basis. Given the relatively infrequent operation of the facility, The Permittee requests that the condition be revised to require monitoring only on days a combustion turbine operates. The Permittee suggests the following revised language:

"AVO monitoring shall be performed each day on which at least one combustion turbine operates".

Response: The EPA rejects this proposed change because daily AVO monitoring conditions are consistent with BACT determinations of other recently proposed and issued simple cycle combustion turbine electric generating unit peaking project permits by EPA Region 6. Additionally, piping components contain natural gas fuel whether combustion turbines operate or not; therefore, daily AVO monitoring is required.

Comment: In several places in the Statement of Basis, use of an electric fuel pre-heater is mentioned as a BACT technology and, on page 17, is included as part of the BACT selection. The Permittee wishes to clarify that the electric fuel pre-heater would be used only during startup events and only during certain ambient conditions to ensure the fuel is above its dew point temperature. Once the turbine is operating the fuel is kept at temperature using waste heat from the turbine.

Response: The EPA agrees with the Permittee's clarification on the electric fuel pre-heater usage.

IV. Revisions in Final Permit

No changes were made to the final permit of the *Tenaska Roan's Prairie Generating Station (PSD-TX-1378-GHG)*

V. National Historic Preservation Act (NHPA)

The EPA Region 6 determined that the potential for other intact archaeological resources eligible for listing on the NRHP is low within the construction footprint of the project itself. Therefore, issuance of the permit to Tenaska will not affect properties on or potentially eligible for listing on the National Register.

On May 22, 2014, EPA sent a letter to the State Historic Preservation Officer (SHPO) requesting concurrence on EPA findings for Tenaska's cultural survey. The SHPO sent a letter with concurrence to EPA on June 9, 2014, and EPA received it on June 16, 2014.

VI. Endangered Species Act (ESA)

EPA has determined that issuance of the proposed permit to Tenaska for a new electric generating station which includes three gas turbines and associated equipment will have no effect on the six (6) listed species, as there are no records of occurrence, no designated critical habitat, nor potential suitable habitat for any of these species within the action area.

Because of EPA's "no effect" determination, no further consultation with the USFWS is needed.