

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



EXAMPLE A

NOTICE OF APPLICATION AND PRELIMINARY DECISION FOR AIR QUALITY PERMITS

PROPOSED AIR QUALITY PERMIT NUMBERS 179865, PSDTX1666, AND GHGPSDTX250

APPLICATION AND PRELIMINARY DECISION. Arkansas Electric Cooperative Corporation, PO Box 194208, Little Rock, Arkansas 72219-4208, has applied to the Texas Commission on Environmental Quality (TCEQ) for issuance of proposed State Air Quality Permit 179865, issuance of Prevention of Significant Deterioration (PSD) Air Quality Permit PSDTX1666, and issuance of Greenhouse Gas (GHG) PSD Air Quality Permit GHGPSDTX250 for emissions of GHGs, which would authorize construction of the Naples Power Plant located at 32376 Texas State Highway 77, Naples, Morris County, Texas 75568 (travel 2.04 miles northwest on Highway 77 from the intersection of Highway 77 and Main Street and the project site will be located to the northeast side of that point on Highway 77). This application was processed in an expedited manner, as allowed by the commission's rules in 30 Texas Administrative Code, Chapter 101, Subchapter J. The proposed facility will emit the following air contaminants in a significant amount: carbon monoxide, nitrogen oxides, organic compounds, particulate matter including particulate matter with diameters of 10 microns or less and 2.5 microns or less, and greenhouse gases. In addition, the facility will emit the following air contaminants: sulfur dioxide, sulfuric acid mist, lead, and hazardous air pollutants.

The degree of PSD increment predicted to be consumed by the proposed facility and other increment-consuming sources in the area is as follows:

PM_{2.5}

Maximum Averaging Time	Maximum Increment Consumed ($\mu\text{g}/\text{m}^3$)	Allowable Increment ($\mu\text{g}/\text{m}^3$)
Annual	0.3	4

This application was submitted to the TCEQ on April 14, 2025. The executive director has determined that the emissions of air contaminants from the proposed facility which are subject to PSD review will not violate any state or federal air quality regulations and will not have any significant adverse impact on soils, vegetation, or visibility. All air contaminants have been evaluated, and "best available control technology" will be used for the control of these contaminants.

The executive director has completed the technical review of the application and prepared a draft permit which, if approved, would establish the conditions under which the facility must operate. The permit application, executive director's preliminary decision, draft permit, and the executive director's preliminary determination summary and executive director's air quality analysis, will be available for viewing and copying at the TCEQ central office, the TCEQ Tyler regional office, and at the Daingerfield Public Library, 207 Jefferson Street, Daingerfield, Morris County, Texas, beginning the first day of publication of this notice. The facility's compliance file, if any exists, is available for public review at the TCEQ Tyler Regional Office, 2916 Teague Drive, Tyler, Texas. The application, including any updates, is available electronically at the following webpage: <https://www.tceq.texas.gov/permitting/air/airpermit-applications-notices>.

INFORMATION AVAILABLE ONLINE. These documents are accessible through the Commission's Web site at www.tceq.texas.gov/goto/cid: the executive director's preliminary decision which includes the draft permit, the executive director's preliminary determination summary, air quality analysis, and, once available, the executive director's response to comments and the final decision on this application. Access the Commissioners' Integrated Database (CID) using the above link and enter the permit number for this application. The public location mentioned above, Daingerfield Public Library, provides public access to the internet. This link to an electronic map of the site or facility's general location is

provided as a public courtesy and not part of the application or notice. For exact location, refer to application. <https://gisweb.tceq.texas.gov/LocationMapper/?marker=-94.703228,33.222489&level=13>.

PUBLIC COMMENT/PUBLIC MEETING. You may submit public comments or request a public meeting to the Office of the Chief Clerk at the address below. The purpose of a public meeting is to provide the opportunity to submit comment or to ask questions about the application. The TCEQ will hold a public meeting if the executive director determines that there is a significant degree of public interest in the application, if requested by an interested person, or if requested by a local legislator. A public meeting is not a contested case hearing. You may submit additional written public comments within 30 days of the date of newspaper publication of this notice in the manner set forth in the AGENCY CONTACTS AND INFORMATION paragraph below.

After the deadline for public comment, the executive director will consider the comments and prepare a response to all relevant and material or significant public comment. The response to comments, along with the executive director's decision on the application, will be mailed to everyone who submitted public comments or is on a mailing list for this application. The mailing will also provide instructions for requesting a contested case hearing or reconsideration of the executive director's decision.

OPPORTUNITY FOR A CONTESTED CASE HEARING. You may request a contested case hearing regarding the portions of the application for State Air Quality Permit Number 179865 and for PSD Air Quality Permit Number PSDTX1666. There is no opportunity to request a contested case hearing regarding the portion of the application for GHG PSD Air Quality Permit Number GHGPSDTX250. A contested case hearing is a legal proceeding similar to a civil trial in a state district court. A person who may be affected by emissions of air contaminants, other than GHGs, from the facility is entitled to request a hearing. A contested case hearing request must include the following: (1) your name (or for a group or association, an official representative), mailing address, daytime phone number; (2) applicant's name and permit number; (3) the statement "I/we request a contested case hearing;" (4) a specific description of how you would be adversely affected by the application and air emissions from the facility in a way not common to the general public; (5) the location and distance of your property relative to the facility; (6) a description of how you use the property which may be impacted by the facility; and (7) a list of all disputed issues of fact that you submit during the comment period. If the request is made by a group or association, one or more members who have standing to request a hearing must be identified by name and physical address. The interests the group or association seeks to protect must also be identified. You may also submit your proposed adjustments to the application/permit which would satisfy your concerns. Requests for a contested case hearing must be submitted in writing within 30 days following this notice to the Office of the Chief Clerk, at the address provided in the information section below.

A contested case hearing will only be granted based on disputed issues of fact or mixed questions of fact and law that are relevant and material to the Commission's decisions on the application. The Commission may only grant a request for a contested case hearing on issues the requestor submitted in their timely comments that were not subsequently withdrawn. Issues that are not submitted in public comments may not be considered during a hearing.

EXECUTIVE DIRECTOR ACTION. The executive director may issue final approval of the application for the portion of the application for GHG PSD Air Quality Permit GHGPSDTX250. If a timely contested case hearing request is not received or if all timely contested case hearing requests are withdrawn regarding State Air Quality Permit Number 179865 and for PSD Air Quality Permit Number PSDTX1666, the executive director may issue final approval of the application. The response to comments, along with the executive director's decision on the application will be mailed to everyone who submitted public comments or is on a mailing list for this application, and will be posted electronically to the CID. If any timely hearing requests are received and not withdrawn, the executive director will not issue final approval of the State Air Quality Permit Number 179865 and for PSD Air Quality Permit Number PSDTX1666 and will forward the application and requests to the Commissioners for their consideration at a scheduled commission meeting.

MAILING LIST. You may ask to be placed on a mailing list to obtain additional information on this application by sending a request to the Office of the Chief Clerk at the address below.

AGENCY CONTACTS AND INFORMATION. Public comments and requests must be submitted either electronically at www.tceq.texas.gov/goto/comment, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC 105, P.O. Box 13087, Austin, Texas 78711-3087. Please be aware that any contact information you provide, including your name, phone number, email address and physical address will become part of the agency's public record. For more information about the permitting process, please call the TCEQ Public Education Program, Toll Free, at 1-800-

687-4040 or visit their website at www.tceq.texas.gov/goto/pep. Si desea información en Español, puede llamar al 1-800-687-4040. You can also view our website for public participation opportunities at www.tceq.texas.gov/goto/participation.

Further information may also be obtained from Arkansas Electric Cooperative Corporation at the address stated above or by calling Mr. Stephen Cain, Director-compliance And Support at (501) 570-2420.

Notice Issuance Date: November 24, 2025

Special Conditions

Permit Numbers 179865, PSDTX1666, and GHGPSDTX250

1. This permit covers only those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates" (MAERT), and those sources are limited to the emission limits and other conditions specified in that table.
2. Non-fugitive emissions from relief valves, safety valves, or rupture discs of gases containing volatile organic compounds (VOC) at a concentration of greater than 1 weight percent are not authorized by this permit unless authorized on the MAERT. Any releases directly to atmosphere from relief valves, safety valves, or rupture discs of gases containing VOC at a concentration greater than 1 weight percent are not consistent with good practice for minimizing emissions

Federal Applicability

3. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources promulgated in Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60):
 - A. Subpart A, General Provisions
 - B. Subpart KKKK, Standards of Performance for Stationary Combustion Turbines
 - C. Subpart TTTT_a, Standards of Performance for Greenhouse Gas Emissions for Modified Coal-Fired Steam Electric Generating Units and New Construction and Reconstruction Stationary Combustion Turbine Electric Generating Units
 - D. Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
4. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on National Emission Standards for Hazardous Air Pollutants for Source Categories in 40 CFR Part 63:
 - A. Subpart A, General Provisions
 - B. Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Turbine Emissions Standards and Operating Specifications

5. This permit authorizes two natural gas fired combustion turbine generators (CTGs) to operate in simple cycle mode [Emission Point Numbers (EPNs): SCCT-1 and SCCT-2]. Both turbines are Siemens model SGT6-9000HL turbines, each with a maximum heat input of 3,979 million British thermal units per hour (MMBtu/hr) higher heating value (HHV) for natural gas firing and 3,433 MMBtu/hr (HHV) for ultra-low sulfur diesel (ULSD) firing.
6. Authorized fuels for SCCT-1 and SCCT-2 shall be limited to pipeline quality, sweet natural gas and ULSD. The natural gas shall contain no more than 0.5 grains total sulfur per 100 dry standard cubic feet (dscf) on an hourly and annual basis.
7. Fuel consumption in each turbine (EPNs SCCT-1 and SCCT-2) shall not exceed the following limit, based on a rolling 12-month period and the higher heating value of the fuel:

13,926,500 MMBtu/yr total (natural gas + ULSD firing) including up to 1,716,500 MMBtu/yr from ULSD firing per turbine.

8. The natural gas purchase records will be used to show compliance with the sulfur content limit stated in Special Condition No. 6 and Special Condition No. 16.
9. The combustion turbine emissions identified as Emission Point Nos. SCCT-1 and SCCT-2, shall not exceed the following concentrations in parts per million by volume, dry basis (ppmvd) at 15% oxygen (O₂), except during periods of planned maintenance, startup, and shutdown (MSS):
 - 5 ppmvd of nitrogen oxides (NO_x) on a rolling three-hour average when firing natural gas,
 - 25 ppmvd of NO_x on a rolling three-hour average when firing ULSD,
 - 9 ppmvd of carbon monoxide (CO) on a rolling three-hour average for both NG and ULSD firing.
 - A. Planned startup events for each turbine are excluded from the above concentration limits. A planned startup is defined as the period beginning when the combustion turbine receives a "turbine start" signal and an initial flame detection signal is recorded in the plant's control system and ending when the combustion turbine output achieves steady operation in the low NO_x operating mode and the SCR and oxidation catalyst systems have achieved steady state operation thereby achieving emissions compliance. Each startup period shall not exceed 60 minutes.
 - B. Planned shutdown events for each turbine are excluded from the above concentration limits. A planned shutdown is defined as the period that beginning when the combustion turbine receives a "turbine stop" command and the turbine output drops below the minimum stable load and ending when a flame detection signal is no longer recorded in the plant's control system. Each shutdown period shall not exceed 30 minutes.
 - C. Emissions from startup, shutdown, and maintenance activities (Attachment B) are excluded from the above concentration limits.
10. All lube oil vents (EPNs LOTK1, LOTK2, LOTK3, and LOTK4) shall be equipped with a mist eliminator.

Ammonia Handling

11. The concentration of ammonia (NH₃) from EPNs SCCT-1 and SCCT-2 shall not exceed 10 parts per million by volume dry (ppmvd) corrected to 15 percent oxygen (O₂), on a rolling 24-hour average and an annual average basis. This concentration limit shall not apply to MSS activities, during which emissions are limited by the emission rates shown on the MAERT.
12. The permit holder shall install and operate a second NO_x CEMS probe located before the SCR, upstream of the stack NO_x CEMS, which may be used in association with the SCR efficiency and NH₃ injection rate to estimate NH₃ slip. This condition shall not be construed to set a minimum NO_x reduction efficiency on the SCR unit.
13. The permit holder shall maintain prevention and protection measures for the NH₃ storage system which include the following:

- A. Marking and securing the NH₃ storage tank to protect the tank from accidents that could cause a rupture.
14. The permit holder shall maintain the piping and valves in NH₃ service as follows:
- A. Audio, olfactory, and visual checks for NH₃ leaks within the operating area shall be made once per shift.
 - B. Immediately, but no later than 24 hours upon detection of a leak, plant personnel shall take one or more of the following actions:
 - (1) Locate and isolate the leak, if necessary.
 - (2) Commence repair or replacement of the leaking component.
 - (3) Use a leak collection or containment system to control the leak until repair or replacement can be made if immediate repair is not possible.
 - C. Stored NH₃ must have a concentration of less than 20% NH₃ by weight.
15. Records of AVO checks, any maintenance performed on piping and valves in NH₃ service, accidental releases, venting, and any corrective actions taken shall be maintained by the holder of this permit.

Natural Gas Heater

16. The heater (EPN NGH) shall be fired with pipeline quality, sweet natural gas containing no more than 0.5 grains of total sulfur per 100 dry standard cubic feet (dscf) on an hourly and annual basis.
17. NO_x and CO emissions from the heater (EPN NGH) shall not exceed the following:
- 0.036 lb NO_x/MMBtu on an hourly average,
 - 0.037 lb CO/MMBtu on an hourly average

Emergency Engines

18. Emissions from the emergency generator and emergency fire pump, emission point numbers (EPNs) EMGEN and EMFP, shall be limited to no more than 100 hours of operation each per rolling 12-month period. Operation in a true emergency is unlimited. Records of the hours of operation kept on a monthly and rolling 12-month basis shall be maintained by the holder of this permit.
19. A non-resettable run time meter shall be installed on each engine.
20. Authorized EPNs EMGEN and EMFP fuel shall be ultra-low sulfur diesel (ULSD), containing no more than 0.0015 percent sulfur by weight.

Visible Emissions

21. During normal operations, opacity of emissions from sources authorized by this permit shall not exceed 5 percent averaged over a six minute period. During periods of startup, shutdown or maintenance, the opacity from the stacks shall not exceed 15 percent over a six minute period. The permit holder shall demonstrate compliance with this Special Condition in accordance with the following procedures:
- A. Visible emission observations using EPA Method 22 shall be conducted and recorded at least once during each calendar quarter while the facility is in operation, unless the emission unit is not operating for the entire calendar quarter.
 - B. Continuous demonstration of compliance with this special condition can be demonstrated by conducting and recording visible emissions observations using EPA Method 22 during normal operations. This determination shall be made by first observing for visible emissions while each facility is in operation. Observations shall be made at least 15 feet and no more than 0.25 mile from the emission point(s). Up to three emissions points may be read concurrently, provided that all three emissions points are within a 70 degree viewing sector or angle in front of the observer such that the proper sun position (at the observer's back) can be maintained for all three emission points. A certified opacity reader is not required for these visible emission observations.
 - C. If visible emissions are observed from an emission point, then opacity shall be determined and documented within 24 hours for that emission point using Title 40 Code of Federal Regulations Part 60 (40 CFR Part 60), Appendix A, Reference Method 9. Contributions from uncombined water shall not be included in determining compliance with this condition.
 - D. If the opacity limits of this Special Condition are exceeded, corrective action to eliminate the source of visible emissions shall be taken promptly and documented within one week of first observation.
 - E. Visible emissions or opacity observations for any source authorized by this permit shall be made upon demand of a representative of the TCEQ or any air pollution control program with jurisdiction. When such observations are required, the methods used and the observation period duration shall be as specified in this Special Condition unless otherwise specified by the person requiring the observation to be conducted.

Storage Tanks

22. Storage tank throughput and service shall be limited to the following:

Tank Identifier	Service	Tank Size (gallons)	Fill/Withdrawal rate (gallons/hour)	Rolling 12 Month Throughput (gallons)
TANK1	ULSD	4,500,000	15,900	12,322,464
TANK2	ULSD	4,500,000	15,900	12,322,464
TANK3	ULSD	1,750	2,760	17,730
TANK4	ULSD	400	2,760	2,150

LOTK1	Lube Oil	11,095	11,095	11,095
LOTK2	Lube Oil	11,095	11,095	11,095
LOTK3	Lube Oil	11,095	11,095	11,095
LOTK4	Lube Oil	11,095	11,095	11,095

23. Except for labels, logos, etc. not to exceed 15 percent of the tank total surface area, uninsulated tank exterior surfaces exposed to the sun shall be white or unpainted aluminum. Storage tanks must be equipped with permanent submerged fill pipes.
24. The permit holder shall maintain a record of tank throughput for the previous month and the past consecutive 12-month period for each tank.

Initial Determination of Compliance

25. The permit holder shall perform stack sampling and other testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from the combustion turbines (EPNs SCCT-1 and SCCT-2) to demonstrate compliance with the MAERT and Special Condition No. 9. The permit holder is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling shall be conducted in accordance with the appropriate procedures of the Texas Commission on Environmental Quality (TCEQ) Sampling Procedures Manual and the U.S. Environmental Protection Agency (EPA) Reference Methods.

Requests to waive testing for any pollutant specified in this condition shall be submitted to the TCEQ Office of Air, Air Permits Division. Test waivers and alternate/equivalent procedure proposals for Title 40 Code of Federal Regulation Part 60 (40 CFR Part 60) testing which must have EPA approval shall be submitted to the TCEQ Regional Director.

- A. The appropriate TCEQ Regional Office shall be notified not less than 45 days prior to sampling. The notice shall include:
 - (1) Proposed date for pretest meeting.
 - (2) Date sampling will occur.
 - (3) Name of firm conducting sampling.
 - (4) Type of sampling equipment to be used.
 - (5) Method or procedure to be used in sampling.
 - (6) Description of any proposed deviation from the sampling procedures specified in this permit or TCEQ/EPA sampling procedures.
 - (7) Procedure/parameters to be used to determine worst case emissions, such as turbine loads, during the sampling period. The permit holder shall present at the pretest meeting the manner in which stack sampling will be executed in order to demonstrate compliance with emission standards found in 40 CFR Part 60 Subpart KKKK.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review

the format procedures for the test reports. The TCEQ Regional Director must approve any deviation from specified sampling procedures.

- B. Air contaminants emitted from the combustion turbines to be tested for include (but are not limited to) CO, NO_x, VOC, NH₃, PM₁₀, and PM_{2.5}. Diluents to be measured is O₂. Stack sampling of air contaminants from the combustion turbines shall be conducted for both natural gas and ULSD operation.
- C. Sampling shall occur within 60 days after achieving the maximum operating rate, but no later than 180 days after initial start-up of the facilities (or increase in production, as appropriate) and at such other times (identify the need for any periodic sampling here) as may be required by the TCEQ Executive Director. Requests for additional time to perform sampling shall be submitted to the appropriate regional office.
- D. The facility shall operate at the maximum firing rate that can be reasonably achieved during stack emission testing. These conditions/parameters and any other primary operating parameters that affect the emission rate shall be monitored and recorded during the stack test. Any additional parameters shall be determined at the pretest meeting and shall be stated in the sampling report. Permit conditions and parameter limits may be waived during stack testing performed under this condition if the proposed condition/parameter range is identified in the test notice specified in paragraph A and accepted by the TCEQ Regional Office. Permit allowable emissions and emission control requirements are not waived and still apply during stack testing periods.

During subsequent operations, if the firing rate is greater than that recorded during the test period, stack sampling shall be performed at the new operating conditions within 120 days. If each individual stack test result from the last successful stack test demonstrated that the actual emissions are less than 80% of the MAERT emission limits, then subsequent operations may include up to a 5% increase in firing rate for the unit without requiring stack sampling at the new operating conditions unless required by the regional office.

- E. Copies of the final sampling report shall be forwarded to the offices below within 60 days after sampling is completed. Sampling reports shall comply with the attached provisions entitled "Chapter 14, Contents of Sampling Reports" of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows:
 - One copy to the appropriate TCEQ Regional Office.
 - One copy to each local air pollution control program.
- F. Sampling ports and platform(s) shall be incorporated into the design of (source stack and EPN) according to the specifications set forth in the attachment entitled "Chapter 2, Guidelines For Stack Sampling Facilities" of the Texas Commission on Environmental Quality (TCEQ) Sampling Procedures Manual. Alternate sampling facility designs must be submitted for approval to the TCEQ Regional Director.

Continuous Demonstration of Compliance

- 26. The permit holder shall install, calibrate, and maintain a continuous emission monitoring system (CEMS) to measure and record the in-stack concentrations of NO_x, CO, and a diluent (O₂) from each of the combustion turbines exhaust stacks (EPNs SCCT-1 and SCCT-2).

- A. The CEMS shall meet the design and performance specifications, pass the field tests, and meet the installation requirements and the data analysis and reporting requirements specified in the applicable Performance Specification Nos. 1 through 9, Title 40 Code of Federal Regulation Part 60 (40 CFR Part 60), Appendix B. If there are no applicable performance specifications in 40 CFR Part 60, Appendix B, contact the TCEQ Office of Air, Air Permits Division for requirements to be met.
- B. Section 1 below applies to sources subject to the quality-assurance requirements of 40 CFR Part 60, Appendix F; section 2 applies to all other sources:
- (1) The permit holder shall assure that the CEMS meets the applicable quality-assurance requirements specified in 40 CFR Part 60, Appendix F, Procedure 1. Relative accuracy exceedances, as specified in 40 CFR Part 60, Appendix F, Section 5.2.3 and any CEMS downtime shall be reported to the appropriate TCEQ Regional Manager, and necessary corrective action shall be taken. Supplemental stack concentration measurements may be required at the discretion of the appropriate TCEQ Regional Manager.
 - (2) The system shall be zeroed and spanned daily, and corrective action taken when the 24-hour span drift exceeds two times the amounts specified in the applicable Performance Specification Nos. 1 through 9, 40 CFR Part 60, Appendix B, or as specified by the TCEQ if not specified in Appendix B. Zero and span is not required on weekends and plant holidays if instrument technicians are not normally scheduled on those days.

Each monitor shall be quality-assured at least quarterly using Cylinder Gas Audits (CGA) in accordance with 40 CFR Part 60, Appendix F, Procedure 1, Section 5.1.2, with the following exception: a relative accuracy test audit (RATA) is not required once every four quarters (i.e., four successive quarterly CGA may be conducted). An equivalent quality-assurance method approved by the TCEQ may also be used. Successive quarterly audits shall occur no closer than two months.

All CGA exceedances of +15 percent accuracy indicate that the CEMS is out of control.
- C. The monitoring data shall be reduced to hourly average concentrations at least once every day, using a minimum of four equally-spaced data points from each one-hour period. The individual average concentrations shall be reduced to units of lb/hr, lb/MMBtu, and parts per million by volume dry at 15% oxygen (ppmvd at 15% O₂) at least once every week as follows:

The measured 1-hour average concentrations from the CEMS shall be converted to a lb/MMBtu emission factor using the measured exhaust gas flow rate or the equations from EPA Method 19 relying on the measured fuel flow and dry F-factor and measured O₂ concentration. The 1-hour average lb/MMBtu emission factors shall be multiplied by the 1-hour heat input rate to the unit obtained from the continuous fuel usage monitoring and heating value obtained from fuel supplier purchase records to determine the hourly mass emission rate from the unit. The measured NO_x and CO concentrations from the unit shall be converted to ppmvd at 15% O₂.
- D. All monitoring data and quality-assurance data shall be maintained by the source. The data from the CEMS may, at the discretion of the TCEQ, be used to determine compliance with the conditions of this permit.
- E. The appropriate TCEQ Regional Office shall be notified at least 30 days prior to any required RATA in order to provide them the opportunity to observe the testing.

- F. The permit holder shall additionally install, calibrate, maintain, and operate continuous monitoring systems to monitor and record the average hourly natural gas consumption of each CTG. The permit holder shall comply with the initial certification and quality assurances as specified in 40 CFR Part 75, Appendix D. The systems shall be accurate to ± 5.0 percent of the gas turbine maximum flow.
- G. If any emission monitor fails to meet specified performance, corrective action shall be taken as soon as reasonably possible, but no later than seven days after failure was first detected by any employee at the facility, unless written permission or verbal followed by written permission is obtained from the TCEQ Regional Office which allows for a longer repair/replacement time.
- H. Quality-assured (or valid) data must be generated when the combustion turbines are operating except during the performance of a daily zero and span check. Loss of valid data due to periods of monitor break down, out-of-control operation (producing inaccurate data), repair, maintenance, or calibration may be exempted provided it does not exceed 5 percent of the time (in minutes) that the combustion turbines operated over the previous rolling 12-month period. The measurements missed shall be estimated using engineering judgment and the methods used recorded. Options to increase system reliability to an acceptable value, including a redundant CEMS, may be required by the TCEQ Regional Manager.

Planned Maintenance, Startup, and Shutdown

- 27. This permit authorizes the emissions from the planned maintenance, startup, and shutdown (MSS) activities listed in Attachment A, Attachment B, and the table entitled "Emission Sources - Maximum Allowable Emission Rates" (MAERT) attached to this permit.
- 28. Attachment A identifies the inherently low emitting MSS activities that may be performed at the plant. Emissions from activities identified in Attachment A shall be considered to be equal to the potential to emit represented in the permit application. The estimated emissions from the activities listed in Attachment A must be revalidated annually. This revalidation shall consist of the estimated emissions for each type of activity and the basis for that emission estimate.
- 29. Compliance with the emissions limits for planned maintenance activities identified in Attachment B may be demonstrated as follows.
 - A. For each pollutant emitted during planned maintenance activities whose emissions are measured using a CEMS, the permit holder shall for each calendar month compare the pollutant's short-term (hourly) emissions as measured by the CEMS to the applicable short-term planned MSS emissions limit in the MAERT.
 - B. For each pollutant emitted during planned maintenance activities whose emissions occur through a stack, the permit holder shall for each calendar month determine the total emissions of the pollutant.
 - C. The performance of each planned MSS activity and the emissions associated with it shall be recorded and include at least the following information:
 - (1) the type of planned MSS activity and the reason for the planned activity;
 - (2) the date and time of the MSS activity and its duration; and

- (3) the estimated quantity of each air contaminant, or mixture of air contaminants, emitted with the data and methods used to determine it. The emissions shall be estimated using the methods identified in the permit application, consistent with good engineering practice.
 - D. Sum all emissions from planned maintenance activities on a 12-month rolling basis for each EPN to show compliance with the MAERT.
30. Each combustion turbine (EPNs SCCT-1 and SCCT-2) shall be limited to 262.5 hours per year of startup and shutdown when firing natural gas. Each combustion turbine shall be limited to 25 hours per year of startup and shutdown when firing ULSD. The total hours of startup/shutdown operation may be demonstrated by using recorded operating parameters such as fuel feed rates or power generation records.

Recordkeeping Requirements

31. The following records shall be kept at the plant for the life of the permit. All records required in this permit shall be made available at the request of personnel from the TCEQ, the EPA, or any air pollution control agency with jurisdiction.
- A. A copy of this permit.
 - B. Permit application received April 14, 2025 and subsequent representations submitted to the TCEQ.
 - C. A complete copy of the testing reports and records of the initial performance testing completed to demonstrate initial compliance.
 - D. Stack sampling results or other air emissions testing (other than CEMS data) that may be conducted on units authorized under this permit after the date of issuance of this permit.
 - E. A copy of the manufacturer's design and operation specifications and all emission-related maintenance requirements
32. The following records (written or electronic) shall be maintained by the holder of this permit in a form suitable for inspection for a period of five years after collection and shall be made available upon request to representatives of the TCEQ, EPA, or any local air pollution control program having jurisdiction:
- A. The CEMS data of NO_x, and CO emissions from EPNs SCCT-1 and SCCT-2 and diluent (O₂) to demonstrate compliance with the emission rates listed in the MAERT and the concentration limits in Special Condition Nos. 9 and 11.
 - B. Raw data files of all CEMS data including calibration checks, adjustments, and maintenance performed on these systems in a permanent form suitable for inspection.
 - C. Records of dates, times, and durations for startups and shutdowns of the CTGs as specified in Special Condition No. 29.C.
 - D. Records of the amount of natural gas fuel fired monthly in each of the CTGs as specified in Special Condition No. 26.H.
 - E. Records of emergency engines and firewater pump hours of operations kept on a monthly and rolling 12-month basis to demonstrate compliance with Special Condition No. 18.

- F. Records of fuel delivery indicating date and quantity of fuel delivered. If the fuel is designated ULSD on the receipt, this is acceptable as showing compliance with ULSD sulfur limitations of this permit. Otherwise, keep records of the sulfur content of the fuel based on receipts or chemical analyses.
- G. Records of visible emissions, opacity observations, and any corrective action taken to demonstrate compliance with Special Condition No. 21.
- H. Records of AVO checks, maintenance performed to any piping and valves or other equipment as required by Special Condition 15.
- I. Records of the monthly and rolling 12-month storage tank services and throughputs as specified in Special Condition No. 24 to demonstrate compliance with Special Condition No. 22.
- J. Records of monitored or calculated maintenance emissions to demonstrate compliance with Special Condition No. 28, 29, and 30.
- K. A record of sampling performed to evaluate emissions.
- L. A record listing the dates of any sampling that showed emission rates to be in violation of the allowable emissions rates and the corrective action taken.

Greenhouse Gases Special Conditions

- 33. If no emission standards in 40 CFR 60 Subpart TTTT_a apply, the CTGs shall not exceed 120 lb/MMBtu CO₂ for natural gas and 160 lb/MMBtu CO₂ for ULSD. MSS activities as defined in Attachments A and B are excluded.

If 40 CFR 60 Subpart TTTT_a is in effect, the CTGs (EPNs SCCT-1 and SCCT-2) shall be subject to the emissions standards as listed in Table 1 to 40 CFR 60 Subpart TTTT_a, which are shown in the table below. For the intermediate load category, when not combusting only natural gas in one month, actual CO₂ output-based emission limit shall be calculated on a 12-month rolling average utilizing the actual fuel blend combusted each month by heat input, using Equation 3 of 40 CFR 60.5525a, as applicable. Compliance with the low load limits is demonstrated by burning only shown uniform fuels (natural gas and ultra-low sulfur diesel) and maintaining purchase records for permitted fuels per 60.5520a (d)(1).

Combustion Turbine Load Category	CO ₂ Emission Rate	
	Natural Gas Firing	ULSD Firing
Intermediate Load	1,170 lb CO ₂ /MWh or as specified in 40 CFR 60 Subpart TTTT _a	1,560 lb CO ₂ /MWh or as specified in 40 CFR 60 Subpart TTTT _a
Low Load	120 lb CO ₂ /MMBtu or as specified in 40 CFR 60 Subpart TTTT _a	160 lb CO ₂ /MMBtu or as specified in 40 CFR 60 Subpart TTTT _a

*If the language in this condition contradicts the language in the federal regulation, the federal regulation will take precedence.

34. Monitoring, quality assurance/quality control requirements, emission calculation methodologies, record keeping, and reporting requirements related to Greenhouse Gas (GHG) emissions shall adhere to the applicable requirements in 40 CFR Part 98, as applicable, and in this permit.
35. The permit holder shall calculate the CO_{2e} emissions on a 12-month rolling basis, based on the procedures and Global Warming Potentials (GWP) contained in Greenhouse Gas Regulations, 40 CFR Part 98, Subpart A, Table A-1, and the revision to the Greenhouse Gas Reporting Rule in 89 Federal Register (FR) 31894. (GWP for NO₂ = 265; GWP for CH₄ = 28)
36. If emissions standards exist under NSPS Subpart TTTT_a, then after the first full calendar month of operation, the permit holder shall compare that month's gross heat rate and output specific CO₂ emission rate to the limits in this permit and the MAERT, as applicable. Within 45 days after collecting the data, the permit holder shall submit a report to the region identifying whether the data causes any concerns regarding the permit holder's ability to comply with the applicable limitations.
37. The permit holder shall minimize emissions from components and equipment containing GHG as follows:
 - A. Piping and valves in natural gas service within the operating area shall be checked daily for leaks using audio, visual, and olfactory (AVO) sensing for natural gas leaks.
 - (1) AVO checks are not required on days when the site is not in operation and the piping in natural gas service has been sufficiently cleared or flushed to the maximum extent practicable.
 - (2) If the site is not manned for a given day, an AVO check shall be performed the next day plant personnel are on site.
 - B. The sulfur hexafluoride (SF₆)-enclosed circuit breakers shall be designed to meet the latest American National Standards Institute (ANSI) C37.013 standard for high voltage circuit breakers. The circuit breakers must be guaranteed to achieve a SF₆ leak rate of 0.5% by weight or less annually. The circuit breakers must be in a totally enclosed, pressurized compartment equipped with an alarm that signals the plant control room in the event that any circuit breaker loses pressure to the extent that 10% of the SF₆ has leaked.
 - (1) SF₆ emissions shall be calculated annually (calendar year) by assuming the maximum 0.5% leak loss rate is lost every year, consistent with the emissions in the application.
 - (2) The circuit breakers shall be equipped with a low pressure alarm and low pressure lockout.
 - C. As soon as practicable following the detection of a leak, plant personnel shall take one or more of the following actions:
 - (1) Locate and isolate the leak, if necessary.
 - (2) Commence repair or replacement of the leaking component.
 - (3) Use a leak collection or containment system to control the leak until repair or replacement can be made if immediate repair is not possible.

Greenhouse Gases Recordkeeping Requirements

38. Permit holder must keep records sufficient to demonstrate compliance with 30 Texas Administrative Code § 116.164. If construction, a physical change or a change in method of operation results in Prevention of Significant Deterioration (PSD) review for criteria pollutants, records shall be sufficient to demonstrate the amount of emissions of GHGs from the source as a result of construction, a physical change or a change in method of operation does not require authorization under 30 TAC §116.164(a). If there is construction, a physical change or change in the method of operation that will result in a net emissions increase of 75,000 tpy or more CO₂e and PSD review is triggered for criteria pollutants, greenhouse gas emissions are subject to PSD review.
39. The following records (written or electronic) shall be maintained by the holder of this permit in a form suitable for inspection for a period of five years after collection and shall be made available upon request to representatives of the TCEQ, EPA, or any local air pollution control program having jurisdiction:
 - A. Records of AVO checks for natural gas fugitive leaks, maintenance or leak repair performed on natural gas piping components and SF₆ containing circuit breakers or other equipment as required by Special Condition No. 37.
 - B. Records of all GHG calculations to demonstrate compliance with 40 CFR Part 98 and Special Condition Nos. 33 through 35.

Date: TBD

Attachment A
Permit 179865, PSDTX1666, and GHG250

Permit 179865, PSDTX1666, and GHG250

Attachment A
Inherently Low Emitting Activities

Activities	EPN	Emissions				
		VOC	NO _x	CO	PM	H ₂ S/SO ₂
Turbine Inlet Filter Cleaning	MSSFUG	X			X	
CEMS Calibration	MSSFUG		X	X		
Small Equipment and Fugitive Component Repair/Replacement	MSSFUG	X				
Process Instrument Calibrations, Inspections, Repair, Replacement, and Testing	MSSFUG	X				
Turbine Washing	MSSFUG				X	

Date: TBD

Permit 179865, PSDTX1666, and GHG250

Attachment B

Non-ILE Planned Maintenance Activities

Activities	EPN	Emissions					
		VOC	NO _x	CO	PM ₁₀ /P M _{2.5}	SO ₂	H ₂ SO ₄
Combustion Turbine Startups and Shutdowns	SCCT-1 and SCCT-2	X	X	X	X	X	X
Inlet Fuel Line Venting	MSSFUG	X					
Gaseous Fuel Venting Prior to Pipeline Pigging and Meter Proving	MSSFUG	X					
Lube Oil Storage Tank/Vessel Maintenance	MSSFUG (FINs LOTK1 through LOTK6)	X					
Diesel Storage Tank/Vessel Maintenance	MSSFUG (FIN FWPTK-1)	X					
Diesel Storage Tank/Vessel Maintenance	MSSFUG (FIN GENTK-1)	X					

Date: TBD

Emission Sources - Maximum Allowable Emission Rates

Permit Numbers 179865 and PSDTX1666

This table lists the maximum allowable emission rates and all sources of air contaminants on the applicant's property covered by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities covered by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rate	
			lbs/hour	TPY (4)
SCCT-1	Turbine 1 Normal – Natural Gas	NOx	74.50	-
		CO	81.60	-
		PM	15.40	-
		PM ₁₀	15.40	-
		PM _{2.5}	15.40	-
		SO ₂	5.70	-
		VOC	5.20	-
		H ₂ SO ₄	1.60	-
		NH ₃	55.10	-
SCCT-1	Turbine 1 Normal – ULSD	NOx	348.33	-
		CO	76.20	-
		PM	31.00	-
		PM ₁₀	31.00	-
		PM _{2.5}	31.00	-
		SO ₂	5.40	-
		VOC	4.90	-
		H ₂ SO ₄	1.50	-
		NH ₃	51.60	-
		Pb	0.05	-
SCCT-1	Turbine 1 MSS – Natural Gas	NOx	377.00	-
		CO	877.00	-
		PM	15.40	-
		PM ₁₀	15.40	-
		PM _{2.5}	15.40	-

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rate	
			lbs/hour	TPY (4)
		SO ₂	5.70	-
		VOC	189.50	-
		H ₂ SO ₄	1.60	-
		NH ₃	55.10	-
SCCT-1	Turbine 1 MSS – ULSD	NO _x	414.00	-
		CO	2,048.80	-
		PM	31.00	-
		PM ₁₀	31.00	-
		PM _{2.5}	31.00	-
		SO ₂	5.40	-
		VOC	475.35	-
		H ₂ SO ₄	1.50	-
		NH ₃	51.60	-
		Pb	0.05	-
SCCT-2	Turbine 2 Normal– Natural Gas	NO _x	74.50	-
		CO	81.60	-
		PM	15.40	-
		PM ₁₀	15.40	-
		PM _{2.5}	15.40	-
		SO ₂	5.70	-
		VOC	5.20	-
		H ₂ SO ₄	1.60	-
		NH ₃	55.10	-
SCCT-2	Turbine 2 Normal – ULSD	NO _x	348.33	-
		CO	76.20	-
		PM	31.00	-
		PM ₁₀	31.00	-

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rate	
			lbs/hour	TPY (4)
		PM _{2.5}	31.00	-
		SO ₂	5.40	-
		VOC	4.90	-
		H ₂ SO ₄	1.50	-
		NH ₃	51.60	-
		Pb	0.05	-
SCCT-2	Turbine 2 MSS – Natural Gas	NO _x	377.00	-
		CO	877.00	-
		PM	15.40	-
		PM ₁₀	15.40	-
		PM _{2.5}	15.40	-
		SO ₂	5.70	-
		VOC	189.50	-
		H ₂ SO ₄	1.60	-
		NH ₃	55.10	-
SCCT-2	Turbine 2 MSS – ULSD	NO _x	414.00	-
		CO	2,048.80	-
		PM	31.00	-
		PM ₁₀	31.00	-
		PM _{2.5}	31.00	-
		SO ₂	5.40	-
		VOC	475.35	-
		H ₂ SO ₄	1.50	-
		NH ₃	51.60	-
		Pb	0.05	-
SCCT-1	Turbine 1 Annual Cap – Natural Gas + ULSD Normal and MSS (5)	NO _x	-	237.31
		CO	-	268.33

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rate	
			lbs/hour	TPY (4)
		PM	-	30.85
		PM ₁₀	-	30.85
		PM _{2.5}	-	30.85
		SO ₂	-	10.01
		VOC	-	38.84
		H ₂ SO ₄	-	2.81
		NH ₃	-	96.77
		Pb	-	0.01
SCCT-2	Turbine 2 Annual Cap – Natural Gas + ULSD Normal and MSS (5)	NO _x	-	237.31
		CO	-	268.33
		PM	-	30.85
		PM ₁₀	-	30.85
		PM _{2.5}	-	30.85
		SO ₂	-	10.01
		VOC	-	38.84
		H ₂ SO ₄	-	2.81
		NH ₃	-	96.77
		Pb	-	0.01
NGH	Natural Gas Heater	NO _x	0.54	2.37
		CO	0.56	2.43
		PM	0.11	0.49
		PM ₁₀	0.11	0.49
		PM _{2.5}	0.11	0.49
		SO ₂	<0.01	0.04
		VOC	0.08	0.35
		H ₂ SO ₄	<0.01	<0.01
EMGEN	Emergency Generator	NO _x	42.33	2.12

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rate	
			lbs/hour	TPY (4)
		CO	23.15	1.16
		PM	1.32	0.07
		PM ₁₀	1.32	0.07
		PM _{2.5}	1.32	0.07
		SO ₂	0.05	<0.01
		VOC	2.83	0.14
		H ₂ SO ₄	<0.01	<0.01
EMFP	Emergency Fire Pump	NO _x	1.98	0.10
		CO	1.72	0.09
		PM	0.10	<0.01
		PM ₁₀	0.10	<0.01
		PM _{2.5}	0.10	<0.01
		SO ₂	0.62	0.03
		VOC	0.75	0.04
		H ₂ SO ₄	0.09	<0.01
TANK1	Day Tank 1	VOC	0.89	0.55
TANK2	Day Tank 2	VOC	0.89	0.55
TANK3	Diesel Generator Tank 3	VOC	0.15	<0.01
TANK4	Fire Pump Tank 4	VOC	0.15	<0.01
LOTK1	Lube Oil Tank 1	VOC	0.04	<0.01
LOTK2	Lube Oil Tank 2	VOC	0.04	<0.01
LOTK3	Lube Oil Tank 3	VOC	0.04	<0.01
LOTK4	Lube Oil Tank 4	VOC	0.04	<0.01
LOV1	Lube Oil Vent 1	VOC	<0.01	0.04
		PM	<0.01	0.04
		PM ₁₀	<0.01	0.04
		PM _{2.5}	<0.01	0.04

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rate	
			lbs/hour	TPY (4)
LOV2	Lube Oil Vent 2	VOC	<0.01	0.04
		PM	<0.01	0.04
		PM ₁₀	<0.01	0.04
		PM _{2.5}	<0.01	0.04
LOV3	Lube Oil Vent 3	VOC	<0.01	0.04
		PM	<0.01	0.04
		PM ₁₀	<0.01	0.04
		PM _{2.5}	<0.01	0.04
LOV4	Lube Oil Vent 4	VOC	<0.01	0.04
		PM	<0.01	0.04
		PM ₁₀	<0.01	0.04
		PM _{2.5}	<0.01	0.04
PIPPEFUG	Piping Fugitives (6)	VOC	0.54	2.37
MSSFUG	MSS ILE and Non-ILE Activities	NO _x	<0.01	<0.01
		CO	<0.01	<0.01
		PM	0.14	<0.01
		PM ₁₀	0.26	<0.01
		PM _{2.5}	<0.01	0.03
		VOC	21.46	3.90
All Sources at the Site	All Sources at the Site (7)	Individual HAP	-	<10
		Total HAPs	-	<25

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.

(2) Specific point source name. For fugitive sources, use area name or fugitive source name.

(3) Exempt Solvent - Those carbon compounds or mixtures of carbon compounds used as solvents which have been excluded from the definition of volatile organic compound.

VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1

NO_x - total oxides of nitrogen

SO₂ - sulfur dioxide

H₂SO₄ - sulfuric acid

PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented

Emission Sources - Maximum Allowable Emission Rates

- PM₁₀ - total particulate matter equal to or less than 10 microns in diameter, including PM_{2.5}, as represented
- PM_{2.5} - particulate matter equal to or less than 2.5 microns in diameter
- CO - carbon monoxide
- NH₃ - ammonia
- Pb - lead
- HAPs - hazardous air pollutants

- (4) Compliance with annual emission limits (tons per year) is based on a 12 month rolling period.
- (5) ULSD firing for each turbine is limited to 500 hours per year total including MSS.
- (6) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (7) HAP emission rates are included within the VOC emission rates.

Date: _____ TBD _____

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Emission Sources - Maximum Allowable Emission Rates

Permit Number GHGPSDTX250

This table lists the maximum allowable emission rates of greenhouse gas (GHG) emissions, as defined in Title 30 Texas Administrative Code § 101.1, for all sources of GHG air contaminants on the applicant's property that are authorized by this permit. The emission rates shown are those derived from information submitted as part of the application for permit and are the maximum rates allowed for these facilities, sources, and related activities. Any proposed increase in emission rates may require an application for a modification of the facilities authorized by this permit.

Air Contaminants Data

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates
			TPY (4)
SCCT-1	Turbine 1 Annual Cap – Natural Gas + ULSD Normal and MSS	CO ₂ (5)	874,355.75
		CH ₄ (5)	2.45
		N ₂ O (5)	18.83
		CO ₂ e	875,532.66
SCCT-2	Turbine 2 Annual Cap – Natural Gas + ULSD Normal and MSS	CO ₂ (5)	874,355.75
		CH ₄ (5)	2.45
		N ₂ O (5)	18.83
		CO ₂ e	875,532.66
NGH	Natural Gas Heater	CO ₂ (5)	7,685.40
		CH ₄ (5)	0.14
		N ₂ O (5)	0.01
		CO ₂ e	7,693.29
EMGEN	Emergency Generator	CO ₂ (5)	198.03
		CH ₄ (5)	0.008
		N ₂ O (5)	0.002
		CO ₂ e	198.68
EMFP	Emergency Fire Pump	CO ₂ (5)	24.01
		CH ₄ (5)	<0.001
		N ₂ O (5)	<0.001
		CO ₂ e	24.09
PIPPEFUG	Piping Fugitives (6)	CH ₄ (5)	28.17
		CO ₂ e	788.68
CRCTBRK	Circuit Breakers	SF ₆ (5)	0.008
		CO ₂ e	193.52
MSSFUG	MSS ILE and Non-ILE Activities	CH ₄ (5)	0.14
		CO ₂ e	3.85

(1) Emission point identification - either specific equipment designation or emission point number from plot plan.

(2) Specific point source name. For fugitive sources, use area name or fugitive source name.

- (3) CO₂ - carbon dioxide
N₂O - nitrous oxide
CH₄ - methane
SF₆ - sulfur hexafluoride
CO_{2e} - carbon dioxide equivalents based on the following Global Warming Potentials (GWPs).

The GWPs effective January 1, 2025 and later (89 FR 31894, April 25, 2024) are the following:
CO₂ (1), N₂O (265), CH₄ (28), SF₆ (23,500), HFC (various), PFC (various).

(4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.

(5) Emission rate is given for informational purposes only and does not constitute enforceable limit.

(6) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.

Date: _____ TBD _____

DRAFT

Preliminary Determination Summary

Arkansas Electric Cooperative Corporation
Permit Numbers 179865, PSDTX1666, and GHGPSDTX250

I. Applicant

Arkansas Electric Cooperative Corporation
PO Box 194208
Little Rock, AR 72219-4208

II. Project Location

Naples Power Plant
Travel 2.04 miles northwest on Highway 77 from the intersection of Highway 77 and Main Street and the project site will be located to the northeast side of that point on Highway 77.

32376 Texas State Highway 77
Naples, Texas 77568
Morris County

III. Project Description

Arkansas Electric Cooperative Corporation (AECC) submitted an initial air permit application to construct two new Siemens SGT6-9000BL simple-cycle combustion turbines (approximately 450-megawatt [MW] each) and auxiliary equipment at a greenfield site. AECC proposes operating each turbine (Emission Point Numbers [EPNs] SCCT-1 and SCCT-2) for up to 3,500 hours per year total with natural gas as the primary fuel and ultra-low sulfur diesel (ULSD) as a backup fuel. Each new combustion turbine will have a maximum heat input of 3,979 million British thermal units per hour (MMBtu/hr), higher heating value (HHV), on natural gas and 3,433 MMBtu/hr (HHV) on ULSD when installed. Natural gas will be delivered to the site via pipeline. ULSD will be stored on site in storage tanks. The site will be a peaking facility, and each turbine will be limited by heat input to an annual capacity factor of approximately 40%. Operation of the two turbines (EPNs SCCT-1 and SCCT-2) will be limited on an annual basis to a maximum heat input of 13,926,500 MMBtu/year with up to 1,716,500 MMBtu/year of ULSD combustion for each turbine. The annual emission rates for the two turbines reflect a total of 3,500 operating hours per year per turbine including startup and shutdown (SUSD). ULSD firing is limited to a maximum of 500 hours per year for each turbine.

The auxiliary equipment includes one natural gas heater (EPN NGH), one emergency diesel generator (EPN EMGEN), one emergency fire pump (EPN EMFP), four storage tanks storing ULSD (EPNs TANK1 through TANK4), four storage tanks storing lube oil (EPNs LOTK1 through LOTK2), four lube oil vents (EPNs LOV1 through LOV4), ten sulfur hexafluoride (SF6) containing circuit breakers (EPN CRCTBRK), and natural gas piping components (EPN PIPPEFUG). Additionally, miscellaneous planned maintenance activities are authorized under EPN MSSFUG).

IV. Emissions

The total allowable emission rates to be authorized by Permit Nos. 179865, PSDTX1666, and GHGPSDTX250 after the permits are issued are summarized in the table below.

Air Contaminant	Proposed Allowable Emission Rates (tpy)
PM	62.44
PM ₁₀	62.44
PM _{2.5}	62.44
VOC	81.93

NO _x	479.22
CO	540.35
SO ₂	20.10
H ₂ SO ₄	5.65
NH ₃	193.54
Pb	0.02
CO ₂ ^a	1,756,618.94
CH ₄ ^a	33.36
N ₂ O ^a	37.67
SF ₆ ^a	0.008
CO _{2e} ^b	1,759,967.43
HAPs	8.51

^a Emission rate is given for informational purposes only and does not constitute enforceable limit.

^b CO_{2e} emissions are based on the following global warming potentials taken from Table A-1 of 40 CFR 98 effective January 1, 2025 and later (89 FR 31894, April 25, 2024): 1 for CO₂, 28 for CH₄, 265 for N₂O, and 23,500 for SF₆.

Planned MSS emissions are included in the table above. The annual emission rates for the turbines combine normal operations and planned SUSD emissions. The draft permit includes specific limits on the duration of planned startup and shutdown activities for the turbines, and separate short-term maximum hourly emission rate limits are specified in the permit's draft Maximum Allowable Emission Rates Table (MAERT). Additionally, Attachment A of the draft permit lists the authorized Inherently Low Emitting (ILE) planned MSS activities, and Attachment B lists the authorized non-ILE planned MSS activities.

V. Federal Applicability

The Naples Power Plant site will be located in Morris County, which is designated as attainment or unclassified for all pollutants. Therefore, nonattainment review does not apply.

As a new "greenfield" site with no existing emissions, the current sitewide Potential-to-Emit is zero for all pollutants. The project emission increases are summarized in the table below. As an unnamed source, the "step 1" project emission increase for each pollutant is compared to the PSD named source new major source threshold of 250 tpy for each pollutant. As shown in the table, NO_x and CO exceed the 250-tpy new major source threshold, and therefore PSD applies to each of these pollutants. Note that contemporaneous netting does not apply to new greenfield (existing minor) sites. Since at least one pollutant exceeds the new major source threshold, the remaining pollutants that did not exceed the new major source threshold are compared to their respective significant emission rate thresholds. As shown in the table, PM, PM₁₀, PM_{2.5}, and VOC exceed their respective significant emission rates and are therefore also subject to PSD review.

As a PSD "anyway" source, meaning PSD is triggered for a non-GHG pollutant, GHGs as CO_{2e} must be evaluated for PSD applicability. As shown in the table, the GHG annual emission rate as CO_{2e} is greater than its respective PSD significant emission rate threshold of 75,000 tpy.

In summary, the project triggers PSD review for NO_x, CO, PM, PM₁₀, PM_{2.5}, VOC, and GHGs as CO_{2e}.

Pollutant	Potential to Emit (tpy)	PSD Major Source Threshold (tpy)	PSD Triggered?	PSD Significant Emission Rate (tpy)	PSD Triggered?
NOx	479.22	250	Yes	-	Yes
CO	540.35	250	Yes	-	Yes
PM	62.44	250	No	25	Yes
PM ₁₀	62.44	250	No	15	Yes
PM _{2.5}	62.44	250	No	10	Yes
SO ₂	20.10	250	No	40	No
VOC	81.93	250	No	40	Yes
H ₂ SO ₄	5.65	250	No	7	No
NH ₃	193.54	Not federally regulated	No	Not federally regulated	No
Lead	0.02	250	No	0.6	No
GHGs (as CO _{2e})	1,759,967.43	-	-	75,000	Yes

VI. Control Technology Review

The Applicant utilized the EPA’s top-down approach to BACT for PSD review including consideration of control technologies contained within the EPA’s RACT/BACT/LAER Clearinghouse (RBLC) database for all pollutants subject to PSD review (NOx, CO, PM, PM10, PM2.5, and VOC). The applicant’s RBLC database search results include entries dated from January 2014 to October 2024. State minor BACT was evaluated for pollutants not subject to PSD review (SO2, H2SO4, Pb, and NH3). The permit reviewer also compared the Applicant’s BACT proposals against TCEQ’s Tier I BACT and recently issued/approved permits within the state of Texas.

Source Name	EPN	Best Available Control Technology Description
Simple Cycle Turbines 1 and 2	SCCT-1 and SCCT-2	<p>These large simple cycle turbines will fire natural gas and ULSD as a backup. ULSD firing is limited to 500 hours per year.</p> <p>NOx: For natural gas firing, Tier I BACT for simple cycle turbines as published in TCEQ’s BACT tables is as follows: “5.0 to 9.0 ppmvd at 15% O₂, typically achieved with dry low NOx burner, water/steam injection, limiting fuel consumption, or selective catalytic reduction (SCR). Specify numeric value and proposed technique.” The Applicant’s RBLC search results (process code 15.110) show a range of concentration limits between 2 ppmvd achieved with SCR and 25 ppmvd achieved with dry low-NOx burners and good combustion practices.</p> <p>For natural gas firing, the applicant’s proposed BACT is as follows: 5 ppm at 15% O₂ during steady state conditions at >40% load achieved with low NOx burners and SCR. This meets Tier I BACT, and all technically feasible control options identified in the EPA top-down analysis are used.</p> <p>For ULSD firing, there is currently no Tier I BACT standard published in TCEQ’s BACT tables. Results of the RBLC database search (process code 15.190) and TCEQ online records search are summarized below:</p>

Source Name	EPN	Best Available Control Technology Description																		
		<table border="1" data-bbox="722 304 1534 1045"> <thead> <tr> <th data-bbox="722 304 862 415">Permit # or RBLC ID</th> <th data-bbox="862 304 1008 415">Date</th> <th data-bbox="1008 304 1534 415">BACT Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="722 415 862 541">4415</td> <td data-bbox="862 415 1008 541">6/30/2008</td> <td data-bbox="1008 415 1534 541">16 ppmvd at 15% O₂ achieved with SCR and water injection. Fuel oil used as backup to natural gas and limited to 250 hours/year.</td> </tr> <tr> <td data-bbox="722 541 862 667">81903</td> <td data-bbox="862 541 1008 667">9/5/2008</td> <td data-bbox="1008 541 1534 667">16 ppmvd at 15% O₂ achieved with SCR and water injection. Fuel oil used as backup to natural gas and limited to 720 hours/year.</td> </tr> <tr> <td data-bbox="722 667 862 846">130051</td> <td data-bbox="862 667 1008 846">4/7/2016</td> <td data-bbox="1008 667 1534 846">42 ppmvd (for GE turbine model) at 15% O₂ at 3-hour rolling average or 25 ppmvd (for Siemens turbine model) achieved with water injection. ULSD used only as a backup to natural gas and limited to 310 hours/year.</td> </tr> <tr> <td data-bbox="722 846 862 972">NJ-0086</td> <td data-bbox="862 846 1008 972">8/26/2016</td> <td data-bbox="1008 846 1534 972">5 ppmvd at 15% O₂ at 3-hour rolling average achieved with SCR and water injection. This represents lowest achievable emission rate (LAER).</td> </tr> <tr> <td data-bbox="722 972 862 1045">PA-0316</td> <td data-bbox="862 972 1008 1045">1/26/2018</td> <td data-bbox="1008 972 1534 1045">4 ppmvd at 15% O₂ achieved with DLN and SCR. This represents LAER.</td> </tr> </tbody> </table> <p data-bbox="735 1077 1502 1350">For ULSD firing, the applicant's proposed BACT is as follows: 25 ppm at 15% O₂ during steady state conditions at 70% load or higher achieved with low NO_x burners, water injection, and SCR. ULSD firing will be limited to 500 hours per year per turbine (including start-up/shutdown). Compared to the BACT descriptions above, this proposal is within the range of accepted NO_x concentration limits and utilizes all technically feasible control technologies identified in the top-down analysis. Therefore, this proposal meets Tier I BACT.</p> <p data-bbox="690 1381 1518 1654">CO: For natural gas firing, Tier I BACT for simple cycle turbines as published in TCEQ's BACT tables is as follows: "9-25 ppmvd at 15% O₂, typically achieved with good combustion practices and/or oxidation catalyst. Specify numeric value and control technique. A detailed analysis is required if >9 ppmvd is proposed." The Applicant's RBLC search results (process code 15.110) show a range of concentration limits between 1.5 ppmvd achieved with oxidation catalyst and 25 ppmvd achieved with dry low NO_x burners and good combustion practices.</p> <p data-bbox="735 1686 1502 1864">For natural gas firing, the applicant's proposed BACT is as follows: 9 ppm at 15% oxygen during steady state conditions at >40% load achieved with oxidation catalyst system and good combustion practices. This meets Tier I BACT, and all technically feasible control options identified in the EPA top-down analysis are used.</p>	Permit # or RBLC ID	Date	BACT Description	4415	6/30/2008	16 ppmvd at 15% O ₂ achieved with SCR and water injection. Fuel oil used as backup to natural gas and limited to 250 hours/year.	81903	9/5/2008	16 ppmvd at 15% O ₂ achieved with SCR and water injection. Fuel oil used as backup to natural gas and limited to 720 hours/year.	130051	4/7/2016	42 ppmvd (for GE turbine model) at 15% O ₂ at 3-hour rolling average or 25 ppmvd (for Siemens turbine model) achieved with water injection. ULSD used only as a backup to natural gas and limited to 310 hours/year.	NJ-0086	8/26/2016	5 ppmvd at 15% O ₂ at 3-hour rolling average achieved with SCR and water injection. This represents lowest achievable emission rate (LAER).	PA-0316	1/26/2018	4 ppmvd at 15% O ₂ achieved with DLN and SCR. This represents LAER.
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		<p>For ULSD firing, there is currently no Tier I BACT standard published in TCEQ's BACT tables. Results of the RBLC database search (process code 15.190) and TCEQ online records search are summarized below:</p> <table border="1" data-bbox="724 426 1523 984"> <thead> <tr> <th data-bbox="724 426 867 537">Permit # or RBLC ID</th> <th data-bbox="867 426 1013 537">Date</th> <th data-bbox="1013 426 1523 537">BACT Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="724 537 867 648">4415</td> <td data-bbox="867 537 1013 648">6/30/2008</td> <td data-bbox="1013 537 1523 648">9 ppmvd at 15% O₂ achieved with oxidation catalyst and good combustion practices. Limited to 250 hours/year.</td> </tr> <tr> <td data-bbox="724 648 867 760">81903</td> <td data-bbox="867 648 1013 760">9/5/2008</td> <td data-bbox="1013 648 1523 760">9 ppmvd at 15% O₂ achieved with oxidation catalyst and good combustion practices. Limited to 720 hours/year.</td> </tr> <tr> <td data-bbox="724 760 867 913">130051</td> <td data-bbox="867 760 1013 913">4/7/2016</td> <td data-bbox="1013 760 1523 913">20 ppmvd at 15% O₂ at 3-hour rolling average achieved with good combustor design (for GE turbine model) and 10 ppmvd at 15% O₂ (for Siemens turbine model). ULSD limited to 320 hours/year.</td> </tr> <tr> <td data-bbox="724 913 867 984">NJ-0086</td> <td data-bbox="867 913 1013 984">8/26/2016</td> <td data-bbox="1013 913 1523 984">5 ppmvd at 15% O₂ at 3-hour rolling average achieved with oxidation catalyst.</td> </tr> </tbody> </table> <p>For ULSD firing, the applicant's proposed BACT is as follows: 9 ppm at 15% O₂ during steady state conditions at 70% load achieved with oxidation catalyst system and good combustion practices. ULSD firing will be limited to 500 hours per year per turbine (including start-up/shutdown). Compared to the BACT descriptions above, this proposal is within the range of accepted CO concentration limits and utilizes all technically feasible control technologies identified in the top-down analysis. Therefore, this proposal meets Tier I BACT.</p> <p>PM/PM₁₀/PM_{2.5}: For natural gas firing, Tier I BACT for simple cycle turbines as published in TCEQ's BACT tables is as follows: "Good combustion practices. Fuel limited to pipeline quality natural gas." The Applicant's RBLC search results (process code 15.110) show use of pipeline quality natural gas or low sulfur fuels and good combustion practices for nearly all entries. The RBLC data also show several permits which report limited operating hours.</p> <p>For ULSD firing, there is currently no Tier I BACT standard published in TCEQ's BACT tables. Results of the RBLC database search (process code 15.190) and TCEQ online records search are summarized below:</p> <table border="1" data-bbox="724 1688 1523 1894"> <thead> <tr> <th data-bbox="724 1688 867 1780">Permit # or RBLC ID</th> <th data-bbox="867 1688 1013 1780">Date</th> <th data-bbox="1013 1688 1523 1780">BACT Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="724 1780 867 1894">4415</td> <td data-bbox="867 1780 1013 1894">6/30/2008</td> <td data-bbox="1013 1780 1523 1894">Use of pipeline quality natural gas and low sulfur fuel oil, good combustion practices and efficient operations.</td> </tr> </tbody> </table>	Permit # or RBLC ID	Date	BACT Description	4415	6/30/2008	9 ppmvd at 15% O ₂ achieved with oxidation catalyst and good combustion practices. Limited to 250 hours/year.	81903	9/5/2008	9 ppmvd at 15% O ₂ achieved with oxidation catalyst and good combustion practices. Limited to 720 hours/year.	130051	4/7/2016	20 ppmvd at 15% O ₂ at 3-hour rolling average achieved with good combustor design (for GE turbine model) and 10 ppmvd at 15% O ₂ (for Siemens turbine model). ULSD limited to 320 hours/year.	NJ-0086	8/26/2016	5 ppmvd at 15% O ₂ at 3-hour rolling average achieved with oxidation catalyst.	Permit # or RBLC ID	Date	BACT Description	4415	6/30/2008	Use of pipeline quality natural gas and low sulfur fuel oil, good combustion practices and efficient operations.
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PA-0316	1/26/2018	2 ppmvd at 15% O ₂ .																											

¹ See WCC Content ID 4917970.

Source Name	EPN	Best Available Control Technology Description												
		<p>firing and >70% for fuel oil firing) achieved through oxidation catalyst and good combustion practices. This meets Tier I BACT, and all technically feasible control options identified in the EPA top-down analysis are used.</p> <p>SO₂: For natural gas firing, Tier I BACT for simple cycle turbines as published in TCEQ's BACT tables is as follows: "Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 2 to 5 grains per 100 scf on an hourly basis and 0.5 to 1 gr/100 scf on an annual basis."</p> <p>For ULSD firing, there is currently no Tier I BACT standard published in TCEQ's BACT tables. Results of the TCEQ online records search are summarized below:</p> <table border="1" data-bbox="721 762 1523 1121"> <thead> <tr> <th data-bbox="721 762 841 850">Permit #</th> <th data-bbox="841 762 987 850">Date</th> <th data-bbox="987 762 1523 850">BACT Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="721 850 841 940">4415</td> <td data-bbox="841 850 987 940">6/30/2008</td> <td data-bbox="987 850 1523 940">Fuel oil sulfur content limited to 0.05% weight. Limited to 250 hours/year.</td> </tr> <tr> <td data-bbox="721 940 841 1031">81903</td> <td data-bbox="841 940 987 1031">9/5/2008</td> <td data-bbox="987 940 1523 1031">Fuel oil sulfur content limited to 0.05% weight. Limited to 720 hours/year.</td> </tr> <tr> <td data-bbox="721 1031 841 1121">130051</td> <td data-bbox="841 1031 987 1121">4/7/2016</td> <td data-bbox="987 1031 1523 1121">ULSD sulfur content limited to 0.0015% weight. Limited to 250 hours/year.</td> </tr> </tbody> </table> <p>The Applicant's proposed BACT for both fuels is as follows: Good combustion practices and use of pipeline quality natural gas and ULSD. Fuels will contain ≤ 5 grains per 100 scf (hourly) and ≤ 1 grain per 100 scfr (annual). This meets Tier I BACT.</p> <p>H₂SO₄: For natural gas firing, Tier I BACT for simple cycle turbines as published in TCEQ's BACT tables is as follows: "Good combustion practices. Fuel limited to firing pipeline quality natural gas (low sulfur fuel). Sulfur content of fuel will not exceed 5 grains per 100 scf on an hourly basis and 1 gr/100 scf on an annual basis."</p> <p>For ULSD firing, there is currently no Tier I BACT standard published in TCEQ's BACT tables. A search of TCEQ's online records indicates that BACT for H₂SO₄ is the same as the requirements for SO₂.</p> <p>The Applicant's proposed BACT for both fuels is as follows: Good combustion practices and use of pipeline quality natural gas and ULSD. Fuels will contain ≤ 5 grains per 100 scf (hourly) and ≤ 1 grain per 100 scfr (annual). This meets Tier I BACT.</p> <p>NH₃: For natural gas firing, Tier I BACT for simple cycle turbines as published in TCEQ's BACT tables is as follows: "7-10 ppmvd at</p>	Permit #	Date	BACT Description	4415	6/30/2008	Fuel oil sulfur content limited to 0.05% weight. Limited to 250 hours/year.	81903	9/5/2008	Fuel oil sulfur content limited to 0.05% weight. Limited to 720 hours/year.	130051	4/7/2016	ULSD sulfur content limited to 0.0015% weight. Limited to 250 hours/year.
Permit #	Date	BACT Description												
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130051	4/7/2016	ULSD sulfur content limited to 0.0015% weight. Limited to 250 hours/year.												

Source Name	EPN	Best Available Control Technology Description
		<p>15% oxygen, achieved by controlling the ammonia injection system to minimize ammonia slip.”</p> <p>For ULSD firing, there is currently no Tier I BACT standard published in TCEQ’s BACT tables. A search of TCEQ’s online records indicates that BACT for NH₃ for fuel oil firing is the same as the requirements for natural gas firing.</p> <p>The Applicant’s proposed BACT for both fuels is as follows: 10 ppmvd at 15% oxygen. This meets Tier I BACT.</p> <p>Pb: There is currently no Tier I BACT standard published in TCEQ’s BACT tables for lead emissions from simple cycle turbines. A search of TCEQ’s online records only yielded one result for trace amounts of lead emissions from combined cycle turbines firing natural gas (Permit 175063, date 11/25/2025), which proposed combustion of natural gas and good combustion practices. The permit reviewer was unable to find any results for lead from simple cycle turbines firing fuel oil in the RBLC database.</p> <p>The Applicant’s proposed BACT is as follows: Good combustion practices. The turbines are not expected to emit lead when firing natural gas. The lead emissions associated with fuel oil firing are not expected to exceed 0.05 lb/hr and <0.01 tpy for each turbine. Fuel oil firing will be limited to 500 hours per year, including MSS. This proposal is consistent with the single BACT description above. Therefore, this proposal meets Tier I BACT.</p> <p>MSS: Tier I BACT for simple cycle turbines as published in TCEQ’s BACT tables is as follows: “Minimizing the duration of MSS activities and operating the facility in accordance with best management practices and good air pollution control practices.” The Applicant’s top-down analysis does not identify any technically feasible control technologies for startup and shutdown operation.</p> <p>The Applicant’s proposed BACT is as follows: Minimized amount of time that the units are in startup and shutdown mode (1 hour maximum for start-ups and 30 minutes for shutdowns) and operation in accordance with best management practices. MSS events are limited to 250 natural gas startups/shutdowns and 20 fuel oil startups/shutdowns. This meets Tier I BACT and the top-down analysis does not identify any technically feasible add-on control options for MSS.</p> <p>CO_{2e}: There is currently no Tier I BACT standard published in TCEQ’s BACT tables for greenhouse gases (GHGs) from simple cycle turbines. The turbines authorized by this permit are subject to the CO₂ emission standards in Table 1 to Subpart TTTTa of 40 CFR Part 60. For turbines that are not subject to Subpart TTTTa, results of the RBLC database search (process code 15.110) and TCEQ online records search are summarized below:</p>

Source Name	EPN	Best Available Control Technology Description		
		Permit # or RBLC ID	Date	Description of BACT
		178462	9/24/2025	If not subject to Subpart TTTTa, CO ₂ limit calculated using equation derived from Equation 3 in 40 CFR §60.5525a(a)(3)(ii).
		175063	11/25/2024	925 lb CO ₂ /MWh-gross
		173582	6/12/2024	1,418 lb CO ₂ /MWh
		160538	3/17/2021	1,194 lb CO ₂ /MWh
		GHGPSDTX118	6/30/2017	1,316 lb CO ₂ /MWh
		72579	8/16/2017	120 lb CO ₂ /MMBtu
		135322	4/28/2017	1,300 lb CO ₂ /MWh
		130051	4/7/2016	1,434 lb CO ₂ /MWh
		GHGPSDTX119	1/13/2016	1,461 lb CO ₂ /MWh-gross
		GHGPSDTX117	12/16/2015	
		GHGPSDTX120	11/13/2015	
		GHGPSDTX41M1	5/20/2015	1,304 lb CO ₂ /MWh
		GHGPSDTX126	11/10/2015	1,398 lb CO ₂ /MWh
		AL-0329	9/21/2021	120 lb CO ₂ /MMBtu
		AK-0085	8/13/2020	117.1 lb CO ₂ /MMBtu with 3-hour average
		AK-0088	7/7/2022	
		TN-0187	8/31/2022	120 lb CO ₂ /MMBtu
		OR-0050	3/5/2014	1,707 lb CO ₂ /MWh gross with 365-day rolling average.
		CO-0075	5/30/2014	1,600 lb CO ₂ /MW gross with 365-day rolling average.
		MD-0044	6/9/2014	117 lb CO ₂ /MMBtu with 3-hour block average
		MD-0043	7/1/2014	1,394 lb CO _{2e} /MWh with 12-month rolling average (excluding SUSD)
		TX-0758	8/1/2014	1,393 lb CO ₂ /MWh gross
		TX-0900	8/17/2020	1,514 lb CO ₂ /MWh
		FL-0354	8/25/2015	1,372 lb CO ₂ /MWh
		FL-0355	9/10/2015	1,374 lb CO _{2e} /MWh
		IN-0264	1/6/2017	118 lb CO ₂ /MMBtu
		WV-0026	1/23/2017	1,300 lb CO ₂ /MWh
		LA-0327	5/23/2018	120 lb CO ₂ /MMBtu
<p>The Applicant's BACT proposal is as follows: 1,170 lb CO₂/MWh-gross (natural gas firing) and 1,560 lb CO₂/MWh-gross (ULSD firing) if the turbines are in the intermediate load category as defined by Subpart TTTTa. If both natural gas and ULSD are burned in a given month and the turbines are in the intermediate category, Equation 3 in §60.5525(a)(3)(i) may be used to determine the site-specific CO₂ emission standard. If the turbines are in the low load category as defined by Subpart TTTTa or Subpart TTTTa is repealed, the turbines will meet the heat input-based limits of 120 lb CO₂/MMBtu (natural gas firing) and 160 lb</p>				

Source Name	EPN	Best Available Control Technology Description
		<p>CO₂/MMBtu (ULSD firing) achieved with efficient turbine design and monitoring and control of excess air. The Applicant's top-down analysis discusses carbon capture and sequestration and deems it technically infeasible because existing CO₂ capture technologies have not been applied at large simple-cycle power plants and the sequestration methods (i.e., mineral trapping, physical adsorption, hydrodynamic trapping, and solubility trapping) have only been demonstrated at the pilot-scale level or require extensive exploratory testing. Compared to the results of the TCEQ online record search and RBLC database search, the Applicant's proposal is within the range of accepted CO₂ limits and utilizes the technically feasible control methods identified in the top-down analysis. Therefore, the BACT proposal is acceptable.</p>
Natural Gas Heater	NHG	<p>This natural gas fired heater will be 15 MMBtu/hr.</p> <p>NO_x: Tier I BACT for heaters ≤ 40 MMBtu/hr as published in TCEQ's BACT tables is as follows: "Burners with the best NO_x performance given the burner configuration and gaseous fuel used. Specify the proposed emission rate (performance is an annual average) and provide justification if NO_x>0.01 lb/MMBtu." The Applicant's RBLC search results (process code 13.310) show a range of concentration limits between 0.01 lb/MMBtu and 0.10 lb/MMBtu achieved with low NO_x burners, exclusive use of pipeline quality natural gas, and/or good combustion practices.</p> <p>The Applicant's proposed BACT is as follows: The unit will only be authorized to fire natural gas. 0.036 lb/MMBtu achieved with low NO_x burners and combustion control. This concentration limit is based on vendor emissions guarantee. This proposal is consistent with the results of the RBLC search and TCEQ online records search for other heaters of similar sizes. SCR is identified as a technically feasible control technology in the top-down analysis, but SCR is not proposed because it would not be cost effective. The applicant was not asked to provide cost analysis, because the total proposed NO_x emission rate from this unit is 2.37 tpy based on 8,760 hours/year, so cost analysis is not needed to be certain that the total annual emissions potentially avoided would be too low to justify the cost of SCR. Therefore, this proposal meets Tier I BACT and utilizes the only technically and economically feasible control option identified in the EPA top-down analysis.</p> <p>CO: Tier I BACT for heaters ≤ 40 MMBtu/hr as published in TCEQ's BACT tables is as follows: "50 ppmv corrected to 3% O₂." The Applicant's RBLC search results (process code 13.310) show a range of concentration limits between 0.037 lb/MMBtu and 0.08 lb/MMBtu achieved with good combustion practices.</p> <p>The Applicant's proposed BACT is as follows: 0.037 lb/MMBtu (50 ppmv) corrected to 3% oxygen achieved with good</p>

Source Name	EPN	Best Available Control Technology Description
		<p>combustion practices. This proposal is consistent with the results of the RBLC search. Oxidation catalyst is identified as a technically feasible control technology in the top-down analysis, but it is not proposed because it would not be cost effective. The applicant was not asked to provide cost analysis, because the total proposed CO emission rate from this unit is 1.16 tpy based on 8,760 hours/year, so cost analysis is not needed to be certain that the total annual emissions potentially avoided would be too low to justify the cost of oxidation catalyst. Therefore, this proposal meets Tier I BACT and utilizes the only technically and economically feasible control option identified in the EPA top-down analysis.</p> <p>PM/PM₁₀/PM_{2.5}: Tier I BACT for heaters ≤ 40 MMBtu/hr as published in TCEQ's BACT tables is as follows: "Maximum opacity 5%." The Applicant's RBLC search results (process code 13.310) show a range of concentration limits between 0.0019 lb/MMBtu and 0.008 lb/MMBtu achieved with exclusive use of pipeline quality natural gas and good combustion practices.</p> <p>The Applicant's proposed BACT is as follows: 0.01 lb/MMBtu achieved using good combustion practices and use of natural gas as only fuel. Maximum opacity 5%. This proposal is consistent with the results of the RBLC search, which does not show any add-on control devices for heaters of this size. Therefore, this meets Tier I BACT and utilizes all technically feasible control options identified in the EPA top-down analysis.</p> <p>VOC: Tier I BACT for heaters ≤ 40 MMBtu/hr as published in TCEQ's BACT tables is as follows: "Firing pipeline quality natural gas and good combustion practices. Specify if firing a different fuel." The Applicant's RBLC search results (process code 13.310) show a range of concentration limits between 0.0015 lb/MMBtu and 0.025 lb/MMBtu achieved with good combustion practices and use of natural gas.</p> <p>The Applicant's proposed BACT is as follows: 0.005 lb/MMBtu achieved using good combustion practices and use of natural gas as only fuel. This proposal is consistent with the results of the RBLC search (process code 13.310). Oxidation catalyst is identified as a technically feasible control technology in the top-down analysis, but it is not proposed because it would not be cost effective. The applicant was not asked to provide cost analysis, because the total proposed VOC emission rate from this unit is 0.35 tpy based on 8,760 hours/year, so cost analysis is not needed to be certain that the total annual emissions potentially avoided would be too low to justify the cost of oxidation catalyst. Therefore, this meets Tier I BACT and utilizes the only technically and economically feasible control options identified in the EPA top-down analysis.</p> <p>SO₂: Tier I BACT for heaters ≤ 40 MMBtu/hr as published in TCEQ's</p>

Source Name	EPN	Best Available Control Technology Description
		<p>BACT tables is as follows: "Maximum 0.6% sulfur content any liquid fuel or 5 grains for pipeline quality sweet natural gas. Provide details."</p> <p>The Applicant's proposed BACT is as follows: Natural gas sulfur content of 0.5 grains per 100 scf. This meets Tier I BACT.</p> <p>H₂SO₄: There is currently no Tier I BACT standard published in TCEQ's BACT tables for H₂SO₄ emissions from heaters. A search of TCEQ's online records indicated that BACT for H₂SO₄ is the same as the requirements for SO₂.</p> <p>The Applicant's proposed BACT is as follows: Natural gas sulfur content of 0.5 grains per 100 scf. This meets Tier I BACT.</p> <p>CO_{2e}: There is currently no Tier I BACT standard published in TCEQ's BACT tables for GHG emissions from heaters. The Applicant's RBLC search results (process code 13.310) and TCEQ online records search results show the use of pipeline quality natural gas, good combustion practices, and energy efficiency.</p> <p>The Applicant's proposed BACT is as follows: Good combustion practices and use of natural gas as only fuel. This proposal is consistent with the BACT description above and the EPA top-down analysis does not identify any technically feasible control options for GHGs from heaters. Therefore, the BACT proposal is acceptable.</p>
Emergency Generator	EMGEN	<p>NO_x: Tier I BACT for emergency engines as published in TCEQ's BACT tables as follows: "Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter." The Applicant's RBLC search results (process code 17.110) show a range of concentration limits between 3.3 g/hp-hr and 4.8 g/hp-hr achieved by meeting NSPS standards, good combustion practices, use of ULSD fuel, and limited operating hours.</p> <p>The Applicant's proposed BACT is as follows 4.8 g/hp-hr achieved with good combustion practices. Engine will meet the requirements of 40 CFR Part 60, Subpart IIII and fire ULSD fuel (no more than 15 ppm sulfur by weight). Limited to 100 hours/year of non-emergency operation. Engine will be equipped with a non-resettable runtime meter. This proposal is consistent with the results of the RBLC database search. SCR is identified as a technically feasible control technology in the top-down analysis, but SCR is not proposed because it would not be cost effective. The applicant was not asked to provide cost analysis, because the total proposed NO_x emission rate from this unit is 2.12 tpy based on the maximum allowed hours of operation (100 hours/year), so cost analysis is not needed to be certain that the total annual</p>

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		<p>emissions potentially avoided would be too low to justify the cost of SCR. Therefore, this meets Tier I BACT and utilizes all technically and economically feasible control options identified in the EPA top-down analysis.</p> <p>CO: Tier I BACT for emergency engines as published in TCEQ's BACT tables is as follows: "Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter." The Applicant's RBLC search results (process code 17.110) show an emission limit of 2.61 g/hp-hr achieved by meeting NSPS standards, good combustion practices, use of ULSD fuel, limited operating hours, and/or oxidation catalyst.</p> <p>The Applicant's proposed BACT is as follows: 2.6 g/hp-hr achieved with good combustion practices. Engine will meet the requirements of 40 CFR Part 60, Subpart IIII and fire ULSD fuel (no more than 15 ppm sulfur by weight). Limited to 100 hours/year of non-emergency operation. Engine will be equipped with a non-resettable runtime meter. This proposal is consistent with the results of the RBLC database search. Oxidation catalyst is identified as a technically feasible control technology in the top-down analysis, but it is not proposed because it would not be cost effective. The applicant was not asked to provide cost analysis, because the total proposed CO emission rate from this unit is 1.16 tpy based on the maximum allowed hours of operation (100 hours/year), so cost analysis is not needed to be certain that the total annual emissions potentially avoided would be too low to justify the cost of oxidation catalyst. Therefore, this meets Tier I BACT and utilizes all technically and economically feasible control options identified in the EPA top-down analysis.</p> <p>PM/PM₁₀/PM_{2.5}: Tier I BACT for emergency engines as published in TCEQ's BACT tables is as follows: "Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent." The Applicant's RBLC search results (process code 17.110) show a range of concentration limits between 0.045 g/hp-hr and 0.15 g/hp-hr achieved by meeting NSPS standards, good combustion practices, use of ULSD fuel, and limited operating hours.</p> <p>The Applicant's proposed BACT is as follows: 0.15 g/hp-hr achieved with good combustion practices. Engine will meet the requirements of 40 CFR Part 60, Subpart IIII and fire ULSD fuel (no more than 15 ppm sulfur by weight). Limited to 100 hours/year of non-emergency operation. Engine will be equipped with a non-</p>

Source Name	EPN	Best Available Control Technology Description
		<p>resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA Test Method 22 or equivalent. This proposal is consistent with the results of the RBLC search (process code 17.110), which does not show any add-on control devices for emergency engines. Therefore, this meets Tier I BACT and utilizes all technically feasible control technologies identified in the EPA top-down analysis.</p> <p>VOC: Tier I BACT for emergency engines as published in TCEQ's BACT tables is as follows: "Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter." The Applicant's RBLC search results (process code 17.110) show a range of concentration limits between 0.18 g/hp-hr and 4.8 g/hp-hr achieved by meeting NSPS standards, good combustion practices, use of ULSD fuel, limited operating hours, and/or oxidation catalyst.</p> <p>The Applicant's proposed BACT is as follows: 0.32 g/hp-hr achieved with good combustion practices. Engine will meet the requirements of 40 CFR Part 60, Subpart IIII and fire ULSD (no more than 15 ppm sulfur by weight). Limited to 100 hours/year of non-emergency operation. Engine will be equipped with a non-resettable runtime meter. This proposal is consistent with the results of the RBLC database search. Oxidation catalyst is identified as a technically feasible control technology in the top-down analysis, but it is not proposed because it would not be cost effective. The applicant was not asked to provide cost analysis, because the total proposed VOC emission rate from this unit is 0.14 tpy based on the maximum allowed hours of operation (100 hours/year), so cost analysis is not needed to be certain that the total annual emissions potentially avoided would be too low to justify the cost of oxidation catalyst. Therefore, this meets Tier I BACT and utilizes all technically and economically feasible control options identified in the EPA top-down analysis.</p> <p>SO₂: Tier I BACT for emergency engines as published in TCEQ's BACT tables is as follows: "Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter."</p> <p>The Applicant's proposed BACT is as follows: Engine will meet the requirements of 40 CFR Part 60, Subpart IIII and fire ULSD fuel (no more than 15 ppm sulfur by weight). Limited to 100 hours/year of non-emergency operation. Engine will be equipped with a non-resettable runtime meter. This meets Tier I BACT.</p> <p>H₂SO₄: There is currently no Tier I BACT standard published in</p>

Source Name	EPN	Best Available Control Technology Description
		<p>TCEQ's BACT tables for H₂SO₄ emissions from emergency engines. A search of TCEQ's online records indicated that BACT for H₂SO₄ is the same as the requirements for SO₂.</p> <p>The Applicant's proposed BACT is as follows: Engine will meet the requirements of 40 CFR Part 60, Subpart IIII and fire ULSD (no more than 15 ppm sulfur by weight). Limited to 100 hours/year of non-emergency operation. Engine will be equipped with a non-resettable runtime meter. This meets Tier I BACT.</p> <p>CO₂e: There is currently no Tier I BACT standard published in TCEQ's BACT tables for GHG emissions from emergency engines. The Applicant's RBLC search results (process code 17.110) and TCEQ online records search results show compliance with NSPS standards, good combustion practices, use of ULSD fuel, and limited operating hours.</p> <p>The Applicant's proposed BACT is as follows: Good combustion practices, use of ULSD fuels, and limited to 100 hours/year of non-emergency operation. This proposal is consistent with the BACT description above and the EPA top-down analysis does not identify any technically feasible control options for GHGs from emergency engines. Therefore, the BACT proposal is acceptable.</p>
Emergency Fire Pump	EMFP	<p>NO_x: Tier I BACT for emergency engines as published in TCEQ's BACT tables as follows: "Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter." The Applicant's RBLC search results (process code 17.210) show a range of concentration limits between 2.83 g/hp-hr and 3 g/hp-hr achieved by meeting NSPS standards, good combustion practices, use of ULSD fuel, and limited operating hours.</p> <p>The Applicant's proposed BACT is as follows: 3.0 g/hp-hr achieved with good combustion practices. Engine will meet the requirements of 40 CFR Part 60, Subpart IIII and fire ULSD fuel (no more than 15 ppm sulfur by weight). Limited to 100 hours/year of non-emergency operation. Engine will be equipped with a non-resettable runtime meter. This proposal is consistent with the results of the RBLC database search. SCR is identified as a technically feasible control technology in the top-down analysis, but SCR is not proposed because it would not be cost effective. The applicant was not asked to provide cost analysis, because the total proposed NO_x emission rate from this unit is 0.10 tpy based on the maximum allowed hours of operation (100 hours/year), so cost analysis is not needed to be certain that the total annual emissions potentially avoided would be too low to justify the cost of SCR. Therefore, this meets Tier I BACT and utilizes all technically and economically feasible control options identified in the EPA top-down analysis.</p>

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		<p>CO: Tier I BACT for emergency engines as published in TCEQ's BACT tables is as follows: "Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter." The Applicant's RBLC search results (process code 17.210) show an emission limit of 2.6 g/hp-hr achieved by meeting NSPS standards, good combustion practices, use of ULSD fuel, and limited operating hours.</p> <p>The Applicant's proposed BACT is as follows: 2.6 g/hp-hr achieved with good combustion practices. Engine will meet the requirements of 40 CFR Part 60, Subpart IIII and fire ULSD fuel (no more than 15 ppm sulfur by weight). Limited to 100 hours/year of non-emergency operation. Engine will be equipped with a non-resettable runtime meter. This proposal is consistent with the results of the RBLC database search, which does not show any add-on control devices for engines this size. Therefore, this meets Tier I BACT and utilizes all technically feasible control options identified in the EPA top-down analysis.</p> <p>PM/PM₁₀/PM_{2.5}: Tier I BACT for emergency engines as published in TCEQ's BACT tables is as follows: "Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA TM 22 or equivalent." The Applicant's RBLC search results (process code 17.210) show a range of concentration limits between 0.087 g/hp-hr and 0.22 g/hp-hr achieved by meeting NSPS standards, good combustion practices, use of ULSD fuel, and limited operating hours.</p> <p>The Applicant's proposed BACT is as follows: 0.15 g/hp-hr achieved with good combustion practices. Engine will meet the requirements of 40 CFR Part 60, Subpart IIII and fire ULSD fuel (no more than 15 ppm sulfur by weight). Limited to 100 hours/year of non-emergency operation. Engine will be equipped with a non-resettable runtime meter. No visible emissions shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using EPA Test Method 22 or equivalent. This proposal is consistent with the results of the RBLC database search, which does not show any add-on control devices for engines this size. Therefore, this meets Tier I BACT and utilizes all technically feasible control options identified in the EPA top-down analysis.</p> <p>VOC: Tier I BACT for emergency engines as published in TCEQ's BACT tables is as follows: "Meeting the requirements of 40 CFR</p>

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		<p>Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.” The Applicant’s RBLC search results (process code 17.210) show a range of concentration limits between 0.1 g/hp-hr and 1.14 g/hp-hr achieved by meeting NSPS standards, good combustion practices, use of ULSD fuel, and limited operating hours.</p> <p>The Applicant’s proposed BACT is as follows: 1.1 g/hp-hr achieved with good combustion practices. Engine will meet the requirements of 40 CFR Part 60, Subpart IIII and fire ULSD fuel (no more than 15 ppm sulfur by weight). Limited to 100 hours/year of non-emergency operation. Engine will be equipped with a non-resettable runtime meter. This proposal is consistent with the results of the RBLC database search, which does not show any add-on control devices for engines this size. Therefore, this meets Tier I BACT and utilizes all technically feasible control options identified in the EPA top-down analysis.</p> <p>SO₂: Tier I BACT for emergency engines as published in TCEQ’s BACT tables is as follows: “Meeting the requirements of 40 CFR Part 60, Subpart IIII. Firing ultra-low sulfur diesel fuel (no more than 15 ppm sulfur by weight). Limited to 100 hrs./yr. of non-emergency operation. Have a non-resettable runtime meter.”</p> <p>The Applicant’s proposed BACT is as follows: Engine will meet the requirements of 40 CFR Part 60, Subpart IIII and fire ULSD fuel (no more than 15 ppm sulfur by weight). Limited to 100 hours/year of non-emergency operation. Engine will be equipped with a non-resettable runtime meter. This meets Tier I BACT.</p> <p>H₂SO₄: There is currently no Tier I BACT standard published in TCEQ’s BACT tables for H₂SO₄ emissions from emergency engines. A search of TCEQ’s online records indicated that BACT for H₂SO₄ is the same as the requirements for SO₂.</p> <p>The Applicant’s proposed BACT is as follows: Engine will meet the requirements of 40 CFR Part 60, Subpart IIII and fire ULSD (no more than 15 ppm sulfur by weight). Limited to 100 hours/year of non-emergency operation. Engine will be equipped with a non-resettable runtime meter. This meets Tier I BACT.</p> <p>CO₂e: There is currently no Tier I BACT standard published in TCEQ’s BACT tables for GHG emissions from emergency engines. The Applicant’s RBLC search results (process code 17.210) and TCEQ online records search results show compliance with NSPS standards, good combustion practices, and limited operating hours.</p> <p>The Applicant’s proposed BACT is as follows: Good combustion practices, use of ULSD fuels, and limited to 100 hours/year of non-emergency operation. This proposal is consistent with the</p>

Source Name	EPN	Best Available Control Technology Description
Fixed Roof Storage Tanks (capacity <25,000 gallons or TVP <0.5 psia)	TANK1 through TANK4 and LOTK1 through LOTK4	<p>BACT description above and the EPA top-down analysis does not identify any technically feasible control options for GHGs from emergency engines. Therefore, the BACT proposal is acceptable.</p> <p>VOC: Tier I BACT for fixed roof storage tanks as published in TCEQ's BACT tables is as follows: "Fixed roof with submerged fill. Uninsulated exterior surfaces exposed to the sun shall be white or aluminum." The Applicant's RBLC search results (process code 42.009) show submerged filling, white or aluminum surfaces, and only storing low vapor pressure products (<0.5 psia).</p> <p>The Applicant's proposed BACT is as follows: Fixed roof with submerged fill. Uninsulated exterior surfaces exposed to the sun shall be white or aluminum. This proposal is consistent with the results of the RBLC database search, which does not identify any add-on control devices for storage tanks storing materials with low vapor pressures (<0.5 psia). Floating roof tanks are identified as a potential alternative control method in the EPA top-down analysis, but it is considered technically infeasible, because floating roof tanks are not as effective for reducing emissions when the stored material has a very low vapor pressure. Therefore, this meets Tier I BACT and utilizes all technically feasible control options identified in the EPA top-down analysis.</p> <p>MSS: Tier I BACT for fixed roof tank MSS activities as published in TCEQ's BACT tables is as follows: "Send liquid to a covered vessel. If there is any standing liquid or the VOC vapor pressure is less than 0.02 psia. Control device must meet BACT." The Applicant's RBLC search results (process code 42.009) report good maintenance practices.</p> <p>The Applicant's proposed BACT is as follows: All storage tanks will be storing material with vapor pressure <0.02 psia, so the tanks may be opened to the atmosphere without vapor control. The duration and frequency of MSS activities will be minimized. The RBLC database does not identify any specific control options for MSS emissions from fixed roof tanks storing materials with very low vapor pressures. Therefore, this meets Tier I BACT and utilizes all technically feasible control options identified in the EPA top-down analysis.</p>
Fugitive Components	PIPPEFUG	<p>VOC: Tier I BACT for fugitive components as published in TCEQ's BACT tables is as follows: "Uncontrolled VOC emissions <10 tpy: none". The Applicant's RBLC search results (process code 99.999) show the 28AVO leak detection and repair program (LDAR) at power plants. Other LDAR programs are shown in the RBLC database for piping fugitives, but these entries are associated with chemical plants or refineries which are not comparable to this site, because they utilize significantly more piping with higher vapor pressure materials.</p> <p>The Applicant's proposed BACT is as follows: VOC emissions are <10 tpy. Pipeline-quality natural gas is the only product</p>

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		<p>associated with this EPN. Therefore, fugitive emissions are mostly methane and will be monitored with audio and visual physical inspections performed daily unless site is not operating and all lines have been flushed/cleared or there are no personnel on site. Leaks must be repaired or contained as soon as practicable when detected. Olfactory monitoring is considered infeasible because the natural gas transmission pipeline connected to the facility will not be odorized with mercaptan, the odorant typically added to distribution lines to allow for olfactory detection of leaks without instrumentation. This proposal meets Tier I BACT and utilizes all technically feasible control options identified in the EPA top-down analysis.</p>																																																												
		<p>CO₂e: There is currently no Tier I BACT for GHGs from fugitive components published in TCEQ's BACT tables. Results of the RBL database search (process code 99.999) and TCEQ online records search are summarized below:</p>																																																												
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Circuit Breakers	CRCTBRK	<p data-bbox="691 1035 1515 1157">CO₂e: There is currently no Tier I BACT standard published in TCEQ's BACT tables for SF₆ emissions from circuit breakers. Results of the RBLC database search (process code 99.999) and TCEQ online records search are summarized below:</p> <table border="1" data-bbox="724 1157 1515 1896"> <thead> <tr> <th>Permit # or RBLC ID</th> <th>Date</th> <th>BACT Description</th> </tr> </thead> <tbody> <tr> <td>178462</td> <td>9/24/2025</td> <td rowspan="2">Use of state-of-the-art enclosed pressure SF₆ circuit breakers with leak detection. Use of good operations and preventative maintenance practices employed. Special Conditions (SCs) specify 0.5% annual leak rate and require low pressure alarm/lockout.</td> </tr> <tr> <td>173582</td> <td>6/12/2024</td> </tr> <tr> <td>176191</td> <td>5/3/2025</td> <td rowspan="2">Use of state-of-the-art enclosed-pressure SF₆ insulated circulated breakers with 0.5% annual leak rate, low-pressure SF₆ alarms to detect leaks, and low-pressure lockout. The alarm will alert operating personnel of any leakage in the system, and the lockout prevents any operation of the breaker in the event there is a lack of</td> </tr> <tr> <td>176482</td> <td>12/27/2024</td> </tr> </tbody> </table>	Permit # or RBLC ID	Date	BACT Description	178462	9/24/2025	Use of state-of-the-art enclosed pressure SF ₆ circuit breakers with leak detection. Use of good operations and preventative maintenance practices employed. Special Conditions (SCs) specify 0.5% annual leak rate and require low pressure alarm/lockout.	173582	6/12/2024	176191	5/3/2025	Use of state-of-the-art enclosed-pressure SF ₆ insulated circulated breakers with 0.5% annual leak rate, low-pressure SF ₆ alarms to detect leaks, and low-pressure lockout. The alarm will alert operating personnel of any leakage in the system, and the lockout prevents any operation of the breaker in the event there is a lack of	176482	12/27/2024				
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Source Name	EPN	Best Available Control Technology Description		
			"quenching and cooling" SF ₆ gas.	
		175063	11/25/2024	Use of state-of-the-art, totally enclosed pressurized SF ₆ circuit breakers (leak-tight closed systems) with leak detection including a density alarm that provides warning when SF ₆ has escaped and maximum annual leak rate of 0.5%. SCs also require low pressure lockout.
		171485	9/15/2023	Use of circuit breakers with totally enclosed insulation systems equipped with a low-pressure alarm and low-pressure lockout. SCs of Permit 171485 and 160538 also specify 0.5% annual leak rate.
		160538	3/17/2021	
		GHGPSDTX163	3/27/2018	
		GHGPSDTX118	6/30/2017	
		GHGPSDTX126	11/10/2015	
		GHGPSDTX41M1	5/20/2015	
		166032	3/13/2023	Use of state-of-the-art circuit breakers that are gas-tight and require minimal SF ₆ . AVO monitoring for leak detection. Use of good operations and preventative maintenance practices employed. SCs also require low pressure alarm and lockout.
		158420	9/15/2022	No BACT description provided in Technical Review Summary. SCs specify 0.5% annual leak rate and require low pressure alarm/lockout.
		135322	4/28/2017	Use of state-of-the-art totally enclosed pressure SF ₆ circuit breakers equipped with pressure monitors and low SF ₆ alarm. SCs of Permits 135322 and 130051 specify 0.5% annual leak rate and require low pressure alarm/lockout.
		123117	2/10/2017	
		130051	4/7/2016	
		GHGPSDTX119	1/13/2016	
		GHGPSDTX117	12/16/2015	
		131316	2/14/2017	Circuit breakers must be guaranteed to achieve a SF ₆ leak rate of 0.5% by weight and be equipped with a low pressure alarm and low pressure lockout.
		131769	2/17/2016	Use of state-of-the-art circuit breakers with 0.5% annual

Source Name	EPN	Best Available Control Technology Description		
			leak rate equipped with leak detection monitor and alarm. SCs require low pressure lockout.	
		GHGPSDTX112	4/1/2015	Low pressure alarm and low pressure lockout. The alarm will alert personnel of any leakage in the system, and the lockout prevents any operation of the breaker due to lack of "quenching and cooling" of SF ₆ gas.
		GHGPSDTX100	9/11/2015	Use of state-of-the-art circuit breakers that are gas-tight sealed, require minimal SF ₆ , equipped with leak detection monitor and alarm.
		IN-0400	10/7/2025	Maximum leak rate 0.5% per 12 consecutive month period
		IN-0382	3/31/2025	
		IL-0133	7/29/2022	0.5% leak rate, LDAR program, systematic operations tracking and procedures for quantification pursuant to 40 CFR 98 Subpart DD
		FL-0371	6/7/2021	Maximum leak rate 0.5% per year
		FL-0367	7/27/2018	
		FL-0363	12/4/2017	
		WI-0299	8/20/2020	
		IL-0130	12/31/2018	0.5% leak rate and compliance with limits demonstrated using 40 CFR 98 Subpart DD
		IL-0129	7/30/2018	
		PA-0310	9/2/2016	State-of-the-art insulated sealed enclosed pressure circuit breakers equipped with leak detection equipment that 1) alerts operator when 10% of SF ₆ by weight has escaped and 2) alerts when leak exceeds 5000 ppm from any breaker
		FL-0356	3/9/2016	Maximum leak rate 0.5% per year and equipped with leakage detection systems and alarms.
		FL-0355	9/10/2015	
		FL-0354	8/25/2015	
		PA-0309	12/23/2015	State-of-the-art sealed enclosed pressure circuit breakers equipped with low pressure alarms and low

Source Name	EPN	Best Available Control Technology Description						
		<table border="1" data-bbox="724 306 1516 674"> <tr> <td data-bbox="724 306 971 394"></td> <td data-bbox="971 306 1133 394"></td> <td data-bbox="1133 306 1516 394">pressure lockout. Alarms are triggered when 10% of SF₆ has escaped.</td> </tr> <tr> <td data-bbox="724 394 971 674">MD-0045</td> <td data-bbox="971 394 1133 674">11/13/2015</td> <td data-bbox="1133 394 1516 674">State-of-the-art breakers designed to meet ANSI C37.013 and detect and minimize leaks. Leaks repaired within five days of discovery and repairs documented. Emissions determined using 40 CFR Part 98 Subpart DD.</td> </tr> </table> <p data-bbox="735 705 1511 915">The Applicant's proposed BACT is as follows: State-of-the-art enclosed pressure SF₆ circuit breakers with a guaranteed leak loss rate of 0.5% or less by weight per year equipped with a low-pressure alarm and lockout. This proposal is consistent with the BACT descriptions above. Therefore, this meets Tier I BACT and utilizes all technically feasible control options identified in the EPA top-down analysis.</p>			pressure lockout. Alarms are triggered when 10% of SF ₆ has escaped.	MD-0045	11/13/2015	State-of-the-art breakers designed to meet ANSI C37.013 and detect and minimize leaks. Leaks repaired within five days of discovery and repairs documented. Emissions determined using 40 CFR Part 98 Subpart DD.
		pressure lockout. Alarms are triggered when 10% of SF ₆ has escaped.						
MD-0045	11/13/2015	State-of-the-art breakers designed to meet ANSI C37.013 and detect and minimize leaks. Leaks repaired within five days of discovery and repairs documented. Emissions determined using 40 CFR Part 98 Subpart DD.						
Lube Oil Vents	LOV1 through LOV4	<p data-bbox="691 936 1495 1115">VOC: Tier I BACT for process vents as published in TCEQ's BACT tables is as follows: "Non-halogenated VOCs: flare, any oxidizer, adsorber, absorber/scrubber, etc. Specify technique. Must meet that control device's approved efficiency." Results of the RBLC database search (various process codes) only identified mist eliminators as an applicable control method for lube oil vents.</p> <p data-bbox="735 1150 1495 1266">The Applicant's proposed BACT is as follows: Lube oil vents will be equipped with mist eliminators. This proposal meets Tier I BACT and utilizes all technically feasible control technologies identified in the top-down analysis.</p> <p data-bbox="691 1302 1511 1417">PM/PM₁₀/PM_{2.5}: Tier I BACT for process vents as published in TCEQ's BACT tables is as follows: "<0.01 grains/scf." Results of the RBLC database search (various process codes) only identified mist eliminators as an applicable control method for lube oil vents.</p> <p data-bbox="735 1453 1495 1568">The Applicant's proposed BACT is as follows: Lube oil vents will be equipped with mist eliminators and will meet <0.01 grains/scf. This proposal meets Tier I BACT and utilizes all technically feasible control technologies identified in the top-down analysis.</p>						
Inherently low emitting and non-inherently low emitting MSS	MSSFUG	<p data-bbox="691 1593 1511 1740">NO_x, CO, VOC, PM/PM₁₀/PM_{2.5}, and CO_{2e}: For all pollutants, there is currently no Tier I BACT standard published in TCEQ's BACT tables for inherently low emitting maintenance activities. A search of the RBLC database and TCEQ's online records database using keywords from the activity descriptions did not yield any results.</p> <p data-bbox="735 1776 1511 1892">The Applicant's proposed BACT is as follows: Minimizing duration of MSS activities and best management practices for minimizing formation and release of air contaminants. This BACT proposal is acceptable.</p>						

VII. Air Quality Analysis

The air quality analysis (AQA) is acceptable for all review types and pollutants. The results are summarized below.

A. De Minimis Analysis

A De Minimis analysis was initially conducted to determine if a full impacts analysis would be required. The De Minimis analysis modeling results indicate that 1-hr NO₂ and annual PM_{2.5} exceed the respective de minimis concentrations and require a full impacts analysis. The De Minimis analysis modeling results for 1-hr and 8-hr CO, annual NO₂, 24-hr and annual PM₁₀, and 24-hr PM_{2.5} indicate that the project is below the respective de minimis concentrations and no further analysis is required.

The justification for selecting EPA’s interim 1-hr NO₂ De Minimis level is based on the assumptions underlying EPA’s development of the 1-hr NO₂ De Minimis level. As explained in EPA guidance memoranda², EPA believes it is reasonable as an interim approach to use a De Minimis level that represents 4% of the 1-hr NO₂ National Ambient Air Quality Standard (NAAQS).

The PM_{2.5} and ozone De Minimis levels are EPA recommended De Minimis levels. The use of EPA recommended De Minimis levels is sufficient to conclude that a proposed source will not cause or contribute to a violation of an ozone and PM_{2.5} NAAQS or PM_{2.5} Prevention of Significant Deterioration (PSD) increments based on the analyses documented in EPA guidance and policy memoranda³.

While the De Minimis levels for both the NAAQS and increment are identical for PM_{2.5} in the table below, the procedures to determine significance (that is, predicted concentrations to compare to the De Minimis levels) are different. This difference occurs because the NAAQS for PM_{2.5} are statistically-based, but the corresponding increments are exceedance-based.

**Table 1. Modeling Results for PSD De Minimis Analysis
 in Micrograms Per Cubic Meter (µg/m³)**

Pollutant	Averaging Time	GLCmax ⁴ (µg/m ³)	De Minimis (µg/m ³)
PM ₁₀	24-hr	2.3	5
PM ₁₀	Annual	0.22	1
PM _{2.5} (NAAQS)	24-hr	0.73	1.2
PM _{2.5} (NAAQS)	Annual	0.21	0.13
PM _{2.5} (Increment)	24-hr	1.01	1.2

² www.tceq.texas.gov/assets/public/permitting/air/memos/guidance_1hr_no2naaqs.pdf

³ www.tceq.texas.gov/permitting/air/modeling/epa-mod-guidance.html

⁴ Ground level maximum concentration

Pollutant	Averaging Time	GLCmax ⁴ (µg/m ³)	De Minimis (µg/m ³)
PM _{2.5} (Increment)	Annual	0.22	0.13
NO ₂	1-hr	19	7.5
NO ₂	Annual	0.8	1
CO	1-hr	258	2000
CO	8-hr	102	500

The 24-hr and annual PM_{2.5} (NAAQS) and 1-hr NO₂ GLCmax are based on the highest five-year averages of the maximum predicted concentrations determined for each receptor.

The GLCmax for all other pollutants and averaging times represent the maximum predicted concentrations over five years of meteorological data.

EPA intermittent guidance was relied on for the 1-hr NO₂ PSD De Minimis analysis. Refer to the Modeling Emissions Inventory section for details.

To evaluate secondary PM_{2.5} impacts, the applicant provided an analysis based on a Tier 1 demonstration approach consistent with EPA's Guideline on Air Quality Models (GAQM). Specifically, the applicant used a Tier 1 demonstration tool developed by EPA referred to as Modeled Emission Rates for Precursors (MERPs)⁵. The basic idea behind MERPs is to use technically credible air quality modeling to relate precursor emissions and peak secondary pollutants impacts from a source. Using data associated with the Henderson County source, the applicant estimated 24-hr and annual secondary PM_{2.5} concentrations of 0.12 µg/m³ and 0.0052 µg/m³, respectively. For 24-hr PM_{2.5}, when these estimates are added to the GLCmax listed in the table above, the results are less than the De Minimis level. Since the combined direct and secondary annual PM_{2.5} impacts are above the De minimis level, a full impacts analysis is required.

Table 2. Modeling Results for Ozone PSD De Minimis Analysis in Parts per Billion (ppb)

Pollutant	Averaging Time	GLCmax (ppb)	De Minimis (ppb)
O ₃	8-hr	1.9	1

The applicant performed an O₃ analysis as part of the PSD AQA. The applicant evaluated project emissions of O₃ precursor emissions (NO_x and VOC). For the project NO_x and VOC emissions, the applicant provided an analysis based on a Tier 1 demonstration approach consistent with EPA's GAQM. Specifically, the applicant used a Tier 1 demonstration tool developed by EPA referred to as MERPs⁶. Using data associated with the Henderson County source, the applicant estimated an 8-hr O₃ concentration of 1.9 ppb. When the estimates of ozone concentrations from the project emissions are added together, the results are greater than the De Minimis level.

⁵ https://www.epa.gov/sites/default/files/2020-09/documents/epa-454_r-19-003.pdf

⁶ https://www.epa.gov/sites/default/files/2020-09/documents/epa-454_r-19-003.pdf

B. Air Quality Monitoring

The De Minimis analysis modeling results indicate that all pollutants and averaging times are below their respective monitoring significance level.

Table 3. Modeling Results for PSD Monitoring Significance Levels

Pollutant	Averaging Time	GLCmax ($\mu\text{g}/\text{m}^3$)	Significance ($\mu\text{g}/\text{m}^3$)
PM ₁₀	24-hr	2.3	10
NO ₂	Annual	0.8	14
CO	8-hr	102	575

The GLCmax represents the maximum predicted concentrations over five years of meteorological data.

The applicant evaluated ambient PM_{2.5} monitoring data to satisfy the requirements for the pre-application air quality analysis.

A background concentration for PM_{2.5} was obtained from EPA AIRS monitor 482570005 located at 3790 S Houston St., Kaufman, Kaufman County. The three-year average (2022-2024) of the 98th percentile of the annual distribution of the 24-hr concentrations was used for the 24-hr value (22 $\mu\text{g}/\text{m}^3$). The three-year average (2022-2024) of the annual average concentrations was used for the annual value (7.6 $\mu\text{g}/\text{m}^3$). The use of this monitor is reasonable based on the review of land use, county emissions, and a quantitative review of emissions surrounding the area of the monitor site relative to the project site. The annual background concentration was also used in the NAAQS analysis.

Since the project has a net emissions increase of 100 tpy or more of VOC or NO_x, the applicant evaluated ambient O₃ monitoring data to satisfy the requirements for the pre-application air quality analysis.

A background concentration for O₃ was obtained from EPA AIRS monitor 482030002 located at Highway 135 and Spur 449, Karnack, Harrison County. A three-year average (2022-2024) of the annual fourth highest daily maximum 8-hr average concentrations was used in the analysis (64 ppb). The use of this monitor for a background concentration of ozone is reasonable based on comparison of land use and a quantitative review of emissions sources in the surrounding area of the monitor site relative to the project site. The background concentration was also used in the NAAQS analysis.

C. National Ambient Air Quality Standards (NAAQS) Analysis

The De Minimis analysis modeling results indicate that 1-hr NO₂ and annual PM_{2.5} exceed the respective de minimis concentration and require a full impacts analysis. The full NAAQS modeling results indicate the total predicted concentrations will not result in an exceedance of the NAAQS.

Table 4. Total Concentrations for PSD NAAQS (Concentrations > De Minimis)

Pollutant	Averaging Time	GLCmax (µg/m ³)	Background (µg/m ³)	Total Conc. = [Background + GLCmax] (µg/m ³)	Standard (µg/m ³)
PM _{2.5}	Annual	0.3	7.6	7.9	9
NO ₂	1-hr	91	38	129	188

The annual PM_{2.5} GLCmax is the maximum five-year average of the annual concentrations determined for each receptor.

The 1-hr NO₂ GLCmax is the highest five-year average of the 98th percentile of the annual distribution of predicted daily maximum 1-hr concentrations determined for each receptor.

A background concentration for NO₂ was obtained from EPA AIRS monitor 481830001 at Gregg Co Airport Near Longview, Longview, Gregg County. The applicant used a three-year average (2022-2024) of the 98th percentile of the annual distribution of daily maximum 1-hr concentrations for the 1-hr value. The use of this monitor is reasonable based on the applicant's land use comparison and quantitative review of emission sources in the surrounding area of the monitor site relative to the project site.

As stated above, to evaluate secondary PM_{2.5} impacts, the applicant provided an analysis based on a Tier 1 demonstration approach consistent with EPA's GAQM. Specifically, the applicant used a Tier 1 demonstration tool developed by the EPA referred to as MERPs⁷. Using data associated with the Henderson County source, the applicant estimated an annual secondary PM_{2.5} concentration of 0.0052 µg/m³. When this estimate is added to the GLCmax listed in Table 4 above, the result is less than the NAAQS.

Table 5. Total Ozone Concentrations for PSD NAAQS (Concentrations > De Minimis)

Pollutant	Averaging Time	GLCmax (ppb)	Background (ppb)	Total Conc. = [Background + GLCmax] (ppb)	Standard (ppb)
O ₃	8-hr	1.9	64	65.9	70

The applicant performed an O₃ analysis as part of the PSD AQA. The applicant evaluated project emissions of O₃ precursor emissions (NO_x and VOC). For the project NO_x and VOC emissions, the applicant provided an analysis based on a Tier 1 demonstration approach consistent with EPA's GAQM. Specifically, the applicant used a Tier 1 demonstration tool developed by the EPA referred to as MERPs⁸. Using data associated with the Henderson County source, the applicant estimated an 8-hr O₃ concentration of 1.9 ppb. When the estimates of ozone concentrations from the project emissions are added to the background concentration listed in the table above, the results are less than the NAAQS.

D. Increment Analysis

The De Minimis analysis modeling results indicate that annual PM_{2.5} exceeds the respective de minimis concentration and requires a PSD increment analysis.

⁷ https://www.epa.gov/sites/default/files/2020-09/documents/epa-454_r-19-003.pdf

⁸ https://www.epa.gov/sites/default/files/2020-09/documents/epa-454_r-19-003.pdf

Table 6. Results for PSD Increment Analysis

Pollutant	Averaging Time	GLCmax ($\mu\text{g}/\text{m}^3$)	Increment ($\mu\text{g}/\text{m}^3$)
PM _{2.5}	Annual	0.3	4

The GLCmax represents the maximum predicted concentration over five years of meteorological data.

The GLCmax for annual PM_{2.5} reported in the table above represents the total predicted concentration associated with modeling the direct PM_{2.5} emissions and the contributions associated with secondary PM_{2.5} formation (discussed above in the NAAQS Analysis section).

E. Additional Impacts Analysis

The applicant performed an Additional Impacts Analysis as part of the PSD AQA. The applicant conducted a growth analysis and determined that population will not significantly increase as a result of the proposed project. The applicant conducted a soils and vegetation analysis and determined that all evaluated criteria pollutant concentrations are below their respective secondary NAAQS. The applicant meets the Class II visibility analysis requirement by complying with the opacity requirements of 30 Texas Administrative Code Chapter 111. The Additional Impacts Analyses are reasonable and possible adverse impacts from this project are not expected.

ADMT evaluated predicted concentrations from the proposed project to determine if emissions could adversely affect a Class I area. The nearest Class I area, Caney Creek Wilderness, is located approximately 138 kilometers (km) from the proposed site.

The H₂SO₄ 24-hr maximum predicted concentration of 2 $\mu\text{g}/\text{m}^3$ occurred on the south property line. The H₂SO₄ 24-hr maximum predicted concentration occurring at the edge of the receptor grid, 9 km from the proposed sources, in the direction of the Caney Creek Wilderness Class I area is 0.03 $\mu\text{g}/\text{m}^3$. The Caney Creek Wilderness Class I area is an additional 129 km from the edge of the receptor grid. Therefore, emissions of H₂SO₄ from the proposed project are not expected to adversely affect the Caney Creek Wilderness Class I area.

The predicted concentrations of PM₁₀, PM_{2.5}, NO₂, and SO₂ for all averaging times, are all less than de minimis levels at a distance of 16 km from the proposed sources in the direction the Caney Creek Wilderness Class I area. The Caney Creek Wilderness Class I area is an additional 122 km from the location where the predicted concentrations of PM₁₀, PM_{2.5}, NO₂, and SO₂ for all averaging times are less than de minimis. Therefore, emissions from the proposed project are not expected to adversely affect the Caney Creek Wilderness Class I area.

F. Minor Source NSR and Air Toxics Review

Table 7. Site-Wide Modeling Results for State Property Line

Pollutant	Averaging Time	GLCmax ($\mu\text{g}/\text{m}^3$)	Standard ($\mu\text{g}/\text{m}^3$)
SO ₂	1-hr	55	1021

Pollutant	Averaging Time	GLCmax ($\mu\text{g}/\text{m}^3$)	Standard ($\mu\text{g}/\text{m}^3$)
H ₂ SO ₄	1-hr	8	50
H ₂ SO ₄	24-hr	2	15

Table 8. Modeling Results for Minor NSR De Minimis

Pollutant	Averaging Time	GLCmax ($\mu\text{g}/\text{m}^3$)	De Minimis ($\mu\text{g}/\text{m}^3$)
SO ₂	1-hr	0.6	7.8

The 1-hr SO₂ GLCmax is based on the highest five-year average of the maximum predicted concentrations determined for each receptor.

EPA intermittent guidance was relied on for the 1-hr SO₂ De Minimis analysis. Refer to the Modeling Emissions Inventory section for details.

The justification for selecting EPA's interim 1-hr SO₂ De Minimis level was based on the assumptions underlying EPA's development of the 1-hr SO₂ De Minimis level. As explained in EPA guidance memoranda⁹, EPA believes it is reasonable as an interim approach to use a De Minimis level that represents 4% of the 1-hr SO₂ NAAQS.

To show compliance with the secondary annual SO₂ NAAQS, the applicant relied on EPA's alternative demonstration approach summarized in a memorandum dated December 10, 2024, with a subject "Alternative Demonstration Approach for the 2024 Secondary Sulfur Dioxide National Ambient Air Quality Standard under the Prevention of Significant Deterioration Program."¹⁰ Based on the technical analysis described in the memorandum, EPA determined that a demonstration that increased SO₂ emissions will not cause or contribute to a violation of the primary 1-hr SO₂ standard can suffice to demonstrate that SO₂ emissions will also not cause or contribute to a violation of the secondary annual SO₂ standard.

The applicant did not address the secondary 3-hr SO₂ NAAQS in the AQA. ADMT reviewed the proposed project and determined EPA's alternative demonstration approach for the 3-hr average summarized in the memorandum dated October 10, 2025, with a subject "Alternative Demonstration Approach for the 1971 Secondary 3-Hour Sulfur Dioxide National Ambient Air Quality Standard under the Prevention of Significant Deterioration Program,"¹¹ satisfies the 3-hr average compliance requirement.

Table 9. Total Concentrations for Minor NSR NAAQS (Concentrations > De Minimis)

Pollutant	Averaging Time	GLCmax ($\mu\text{g}/\text{m}^3$)	Background ($\mu\text{g}/\text{m}^3$)	Total Conc. = [Background + GLCmax] ($\mu\text{g}/\text{m}^3$)	Standard ($\mu\text{g}/\text{m}^3$)
Pb	3-mo	0.0004	0.08	0.08	0.15

⁹ www.epa.gov/sites/production/files/2015-07/documents/appwso2.pdf

¹⁰ <https://www.epa.gov/system/files/documents/2024-12/secondary-so2-naaqs-psd-memo-12-10-24.pdf>

¹¹ <https://www.epa.gov/system/files/documents/2025-10/alternative-demonstration-approach-for-the-1971-secondary-3-hour-so2-naaqs-under-the-psd-program.pdf>

The GLCmax is the maximum predicted rolling 3-month average concentration over a five-year period.

A background concentration for Pb was obtained from EPA AIRS monitor 480850029 at 7202 Stonebrook Parkway, Frisco, Collin County. The applicant used the maximum rolling three-month average over 2020-2024 for the 3-month value. Use of the monitor is reasonable based on the applicant's review of the surrounding region, land use, county population, county emissions, and a quantitative review of emissions surrounding the area of the monitor site relative to the project site.

Table 10. Minor NSR Site-Wide Modeling Results for Health Effects

Pollutant	CAS# ¹²	Averaging Time	GLCmax (µg/m ³)	GLCmax Location	ESL ¹³ (µg/m ³)
fuel oil No. 2	68476-30-2	1-hr	984	E Property Line	1000
lubricating oils, petroleum, hydrotreated, spent	64742-58-1	1-hr	63	S Property Line	1000
ammonia	7664-41-7	1-hr	2	1.4km	180

The GLCmax locations are listed in Table 9 above. The locations are listed by their approximate distance and direction from the property line of the project site.

Modeling and Effects Review Applicability (MERA) Summary

The applicant provided a health effects review as specified in the TCEQ's Modeling and Effects Review Applicability (MERA) guidance (APDG 5874 dated March 2018) for project emission increases of non-criteria pollutants. The project emissions of non-criteria pollutants as summarized in the table below satisfy the MERA and are protective of human health and the environment.

Table. 11 Health Effects Review - Minor NSR Project-Related Modeling Results

Pollutant & CAS#	Averaging Time	GLCmax (µg/m ³)	ESL (µg/m ³)	Modeling and Effects Review Applicability (MERA) Step in Which Pollutant Screened Out
natural gas combustion in combustion units (turbines & heater)	1-hr	-	N/A	Step 0 - emissions from combustion units fueled only by pipeline quality natural gas require no further evaluation according to Appendix B of the TCEQ MERA guidance document.
	Annual	-	N/A	
ammonia 7664-41-7	1-hr	2	180	Step 7 – sitewide modeling deemed acceptable by ADMT and impacts are acceptable according to Tier I of Appendix D of the TCEQ MERA guidance.
	Annual	-	92	Step 0 – long-term ESL ≥ 10% of short-term ESL

¹² Chemical Abstracts Service number

¹³ Effects Screening Level

Pollutant & CAS#	Averaging Time	GLCmax (µg/m³)	ESL (µg/m³)	Modeling and Effects Review Applicability (MERA) Step in Which Pollutant Screened Out
lubricating oils, petroleum, hydrotreated, spent 64742-58-1	1-hr	63	1,000	Step 7 – sitewide modeling deemed acceptable by ADMT and impacts are acceptable according to Tier I of Appendix D of the TCEQ MERA guidance.
	Annual	-	100	Step 0 – long-term ESL ≥ 10% of short-term ESL
fuel oil No. 2 68476-30-2	1-hr	984	1,000	Step 7 – sitewide modeling deemed acceptable by ADMT and impacts are acceptable according to Tier I of Appendix D of the TCEQ MERA guidance.
	Annual	-	100	Step 0 – long-term ESL ≥ 10% of short-term ESL

G. Greenhouse Gases

EPA has stated that unlike the criteria pollutants for which EPA has historically issued PSD permits, there is no National Ambient Air Quality Standard (NAAQS) for GHGs, including no PSD increment. The global climate-change inducing effects of GHG emissions, according to the “Endangerment and Cause or Contribute Finding”, are far-reaching and multi-dimensional (75 FR 66497). Climate change modeling and evaluations of risks and impacts are typically conducted for changes in emissions that are orders of magnitude larger than the emissions from individual projects that might be analyzed in PSD permit reviews. Quantifying the exact impacts attributable to a specific GHG source obtaining a permit in specific places and points would not be possible [EPA’s PSD and Title V Permitting Guidance for GHGs at 48]. Thus, EPA has concluded in other GHG PSD permitting actions it would not be meaningful to evaluate impacts of GHG emissions on a local community in the context of a single permit.

The TCEQ has determined that an air quality analysis would provide no meaningful data and has not required the applicant to perform one. As stated in the preamble to TCEQ’s adoption of the GHG PSD program, the impacts review for individual air contaminants will continue to be addressed, as applicable, in the state’s traditional minor and major NSR permits program per 30 TAC Chapter 116.

VIII. Conclusion

In summary, the applicant has demonstrated that the proposed project’s emissions will comply with applicable state and federal rules, meet BACT, and will not adversely affect public health and welfare, which includes NAAQS, additional impacts, minor new source review of regulated pollutants without a NAAQS, increments, and air toxics review. The proposed emissions of health effects pollutants will not cause or contribute to any federal or state exceedances. Therefore, emissions from the facility are not expected to have an adverse impact on public health or the environment.

The Executive Director’s preliminary determination is to issue Permit Nos. 179865, PSDTX1666, and GHGPSDTX250.