

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



EXAMPLE A

NOTICE OF APPLICATION AND PRELIMINARY DECISION FOR AN AIR QUALITY PERMIT

PROPOSED AIR QUALITY PERMIT NUMBERS: 181523, PSDTX1678, and GHGPSDTX258

APPLICATION AND PRELIMINARY DECISION. Pecos Power Plant LLC, 20 Greenway Plaza Suite 650, Houston, TX 77046-2026, has applied to the Texas Commission on Environmental Quality (TCEQ) for issuance of Proposed Air Quality Permit 181523, issuance of Prevention of Significant Deterioration (PSD) Air Quality Permit PSDTX1678, and issuance of Greenhouse Gas (GHG) PSD Air Quality Permit GHGPSDTX258 for emissions of GHGs, which would authorize construction of an Electric Generation Plant at 4200 South Tolivar Street, Pecos, Reeves County, Texas 79772. This application was processed in an expedited manner, as allowed by the commission’s rules in 30 Texas Administrative Code, Chapter 101, Subchapter J. **AVISO DE IDIOMA ALTERNATIVO.** El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/air/newsourcereview/airpermits-pendingpermit-apps>. This application was submitted to the TCEQ on September 15, 2025. 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: hazardous air pollutants, sulfur dioxide and sulfuric acid mist.

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

PM₁₀

Maximum Averaging Time	Maximum Increment Consumed (µg/m ³)	Allowable Increment (µg/m ³)
Annual	1.8	17

Nitrogen Dioxide

Maximum Averaging Time	Maximum Increment Consumed (µg/m ³)	Allowable Increment (µg/m ³)
Annual	1.8	25

PM_{2.5}

Maximum Averaging Time	Maximum Increment Consumed (µg/m ³)	Allowable Increment (µg/m ³)
24-hour	8.9	9
Annual	1.5	4

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 Midland regional office, and the Reeves County Library, 315 South Oak Street, Pecos, Reeves County, Texas beginning the first day of publication of this notice. The facility's compliance file, if any exists, is available for public review in the Midland regional office of the TCEQ, 10 Desta Drive, Suite 350E, Midland, 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, the 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 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=-103.495261,31.38165&level=13>.

PUBLIC COMMENT/PUBLIC MEETING. You may submit public comments or request a public meeting about this application. 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 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.**

OPPORTUNITY FOR A CONTESTED CASE HEARING. 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 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. If a timely contested case hearing request is not received or if all timely contested case hearing requests are withdrawn, 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 permit 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 Pecos Power Plant LLC at the address stated above or by calling Ms. Amanda Marcks, Business Unit Leader at (469) 983-8600.

Notice Issuance Date: February 9, 2026

COMISIÓN DE CALIDAD AMBIENTAL DE TEXAS



EJEMPLO A

AVISO DE SOLICITUD Y DECISIÓN PRELIMINAR PARA UN PERMISO DE CALIDAD DE AIRE

**NÚMEROS DE PERMISOS PROPUESTOS DE CALIDAD DEL AIRE: 181523, PSDTX1678, Y
GHGPSDTX258**

SOLICITUD Y DECISION PRELIMINAR. Pecos Power Plant LLC, 20 Greenway Plz Ste 650, Houston TX 77046-2026 ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ, por sus siglas en inglés) la Solicitud del Permiso de Calidad del Aire Número 181523, emisión del permiso de calidad del aire para la prevención del deterioro significativo ((PSD, por sus siglas en inglés) PSDTX1678, y emisión del permiso de calidad del aire de la PSD para gases de efecto invernadero (GEI, por sus siglas en inglés) GHGPSDTX258 que autorizaría la construcción de Pecos Power Plant en 4200 South Tolivar St, Pecos, Reeves County, Texas 79772. Esta solicitud se tramitó de forma acelerada, según lo permitido por las normas de la comisión en el Código Administrativo de Texas, Título 30, Capítulo 101, Subcapítulo J.

AVISO DE IDIOMA ALTERNATIVO. El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/air/newsourcereview/airpermits-pendingpermit-apps>. Esta solicitud se presentó a la TCEQ el 15 de Septiembre del 2025. La instalación propuesta emitirá los siguientes contaminantes atmosféricos en cantidades significativas: monóxido de carbono, óxidos de nitrógeno, compuestos orgánicos, material particulado, incluyendo partículas con diámetros de 10 micras o menos y de 2,5 micras o menos, y gases de efecto invernadero. Además, la instalación emitirá los siguientes contaminantes atmosféricos: contaminantes atmosféricos peligrosos, dióxido de azufre y niebla de ácido sulfúrico.

El grado de incremento de DSP que se prevé que consumirán la instalación propuesta y otras fuentes que consumen dicho incremento en la zona es el siguiente:

PM₁₀

Maximo Promedio Tiempo	Incremento Maximo Consumido ($\mu\text{g}/\text{m}^3$)	Incremento Permitido ($\mu\text{g}/\text{m}^3$)
Anual	1.8	17

Dióxido Nitrógeno

Maximo Promedio Tiempo	Incremento Maximo Consumido ($\mu\text{g}/\text{m}^3$)	Incremento Permitido ($\mu\text{g}/\text{m}^3$)
Anual	1.8	25

PM_{2.5}

Maximo Promedio Tiempo	Incremento Maximo Consumido ($\mu\text{g}/\text{m}^3$)	Incremento Permitido ($\mu\text{g}/\text{m}^3$)
24-horas	8.9	9
Anual	1.5	4

El director ejecutivo ha determinado que las emisiones de contaminantes atmosféricos de la instalación propuesta que están sujetas a la revisión de la DSP no violarán ninguna regulación estatal o federal de calidad del aire y no tendrán ningún impacto adverso significativo en los suelos, la vegetación o la visibilidad. Todos los contaminantes del aire han sido evaluados, y se utilizará la "mejor tecnología de control disponible" para el control de estos contaminantes.

El director ejecutivo ha completado la revisión técnica de la solicitud y preparó el permiso que, de ser aprobado, establecería las condiciones bajo las cuales debe operar la instalación. La solicitud de permiso, la decisión preliminar del director ejecutivo, el permiso, el resumen de la determinación preliminar del director ejecutivo y el análisis de calidad del aire del director ejecutivo estarán disponibles para su consulta y copia en la Oficina Central de la TCEQ, la Oficina Regional de la TCEQ Midland, y la Biblioteca Pública del Condado Reeves, 315 South Oak Street, Pecos, Condado de Reeves, Texas 79772, a partir del primer día de la publicación de este aviso. El expediente de cumplimiento de la instalación, si existe, está a disposición del público en la Oficina Regional de la TCEQ en Midland ubicada en 10 Desta Drive, Suite 350E, Midland, Texas 79705. La solicitud (incluyendo cualquier actualización) está disponible electrónicamente en la siguiente página web: <https://www.tceq.texas.gov/permitting/air/airpermit-applications-notice>.

INFORMACION DISPONIBLE EN LA PAGINA WEB. Estos documentos están disponibles en el sitio web de la Comisión en www.tceq.texas.gov/goto/cid: la decisión preliminar del director ejecutivo incluye el permiso, el resumen de la determinación preliminar del director ejecutivo, el análisis de la calidad del aire y, una vez disponibles, la respuesta del director ejecutivo a los comentarios y la decisión final sobre esta solicitud. Acceda a la Base de Datos Integrada de los Comisionados (CID) a través del enlace anterior e ingrese el número de permiso correspondiente a esta solicitud. La ubicación pública mencionada anteriormente ofrece acceso público a internet. Este enlace a un mapa electrónico de la ubicación general del sitio o instalación se proporciona como cortesía pública y no forma parte de la solicitud ni del aviso. Para conocer la ubicación exacta, consulte la solicitud. <https://gisweb.tceq.texas.gov/LocationMapper/?marker=-103.495261,31.38165&level=13>.

COMENTARIO PÚBLICO/REUNIÓN PÚBLICA Puede enviar comentarios públicos o solicitar una reunión pública sobre esta solicitud. El propósito de una reunión pública es para brindar la oportunidad de enviar comentarios o hacer preguntas sobre la solicitud. La TCEQ convocará una reunión pública si el director ejecutivo determina que existe un grado significativo de interés público en la solicitud, si lo solicita una persona interesada o si lo solicita un legislador local. Una reunión pública no es una audiencia de caso impugnado. **Puede enviar comentarios públicos adicionales por escrito dentro de los 30 días posteriores a la fecha de publicación de este aviso en el periódico de la manera establecida en el párrafo CONTACTOS E INFORMACIÓN DE LA AGENCIA a continuación.** Después de la fecha límite para comentarios públicos, el director ejecutivo considerará los comentarios y preparará una respuesta a todos los comentarios públicos. **La respuesta a los comentarios, junto con la decisión del director ejecutivo sobre la solicitud, se enviará por correo a todos los que enviaron comentarios públicos o están en una lista de correo para esta solicitud.**

OPORTUNIDAD PARA UNA AUDIENCIA DE CASO IMPUGNADO. Una audiencia de caso impugnado es un procedimiento legal similar a un juicio civil en un tribunal de distrito estatal. **Una persona que pueda verse afectada por las emisiones de contaminantes atmosféricos de la instalación tiene derecho a solicitar una audiencia. Una solicitud de audiencia de caso impugnado debe incluir lo siguiente: (1) su nombre (o para un grupo o asociación, un representante oficial), dirección postal, número de teléfono diurno; (2) nombre y número de permiso del solicitante; (3) la**

declaración "Yo/nosotros solicito/solicitamos una audiencia de caso impugnado;" (4) una descripción específica de cómo se vería afectado negativamente por la aplicación y las emisiones atmosféricas de la instalación de una manera no común para el público en general; (5) la ubicación y distancia de su propiedad en relación con la instalación; (6) una descripción de cómo usa la propiedad que puede verse afectada por la instalación; y (7) una lista de todos los problemas de hecho en disputa que envíe durante el periodo de comentarios. Si la solicitud es hecha por un grupo o asociación, uno o más miembros que tienen legitimación para solicitar una audiencia deben ser identificados por su nombre y dirección física. También deben identificarse los intereses que el grupo o asociación busca proteger. También puede presentar los ajustes propuestos a la solicitud / permiso que satisfagan sus inquietudes. Las solicitudes de una audiencia de caso impugnado deben presentarse por escrito dentro de los 30 días siguientes a este aviso a la Oficina del Secretario Oficial, en la dirección proporcionada en la sección de información a continuación.

Una audiencia de caso impugnado solo se concederá sobre la base de cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho que sean relevantes y materiales para las decisiones de la Comisión sobre la solicitud. La Comisión sólo podrá conceder una solicitud de audiencia de un asunto impugnado sobre asuntos que el solicitante haya presentado en sus observaciones oportunas que no hayan sido retiradas posteriormente. Los asuntos que no se presentan en comentarios públicos no pueden ser considerados durante una audiencia.

ACCIÓN DEL DIRECTOR EJECUTIVO. Si no se recibe una solicitud de audiencia de caso impugnado oportunamente o si se retiran todas las solicitudes de audiencia de caso impugnado oportunamente, el director ejecutivo puede emitir la aprobación final de la solicitud. La respuesta a los comentarios, junto con la decisión del director ejecutivo sobre la solicitud, se enviará por correo a todos los que enviaron comentarios públicos o están en una lista de correo para esta solicitud, y se publicará electrónicamente en el CID. Si se reciben solicitudes de audiencia oportunas y no se retiran, el director ejecutivo no emitirá la aprobación final del permiso y enviará la solicitud y las solicitudes a los Comisionados para su consideración en una reunión programada de la comisión.

LISTA DE CORREO. Puede solicitar ser colocado en una lista de correo para obtener información adicional sobre esta solicitud enviando una solicitud a la Oficina del Secretario Oficial a la dirección a continuación.

CONTACTOS E INFORMACIÓN DE LA AGENCIA. Los comentarios y solicitudes del público deben presentarse electrónicamente vía www.tceq.texas.gov/epic/eComment/, o por escrito a la TCEQ, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información de contacto que proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física, formará parte del registro público de la agencia. Para más información sobre el proceso de tramitación de permisos, favor de llamar al Programa de Educación pública de la TCEQ sin costo al 1-800-687-4040, o visite la página web, www.tceq.texas.gov/goto/pep. Para información en español, favor de llamar al 1-800-687-4040. También es posible consultar oportunidades de participación pública en nuestro sitio web, www.tceq.texas.gov/goto/participation.

También se puede obtener más información de Pecos Power Plant, LLC, 4200 South Tolivar St., Pecos, Texas llamando a la Señorita Amanda Marcks, Business Unit Leader, al (469) 983-8600.

Fecha de Emisión del Aviso: 9 de Febrero del 2026

Special Conditions

Permit Numbers 181523, PSDTX1678, and GHGPSDTX258

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 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 IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
 - C. Subpart JJJJ, Standards of Performance for Stationary Spark 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 Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Emissions Standards and Operating Specifications

5. A non-resettable run time meter shall be installed on each engine.

Wartsila 18V50SG-D Engines

6. This permit authorizes twenty-four (24) natural gas fired 4-stroke lean burn reciprocating internal combustion engines, Emission Point Numbers (EPNs) IC-1 through IC-24. The engines are Warstila 18V50SG-D with a nameplate capacity of 18.87 megawatts each. Each engine shall utilize selective catalytic reduction (SCR) and oxidation catalyst control systems.
7. Emissions from the engine(s), identified as EPNs IC-1 through IC-24, shall not exceed the following except during periods of startup:

Pollutant	Emission Limit	Averaging Time
Nitrogen Oxide (NO _x)	0.044 grams per horsepower-hour (g/hp-hr); 4.5 part per million by volume (ppmv) at 15% oxygen, dry basis (O ₂ , dry)	1-hour average and 12-month rolling basis
Carbon Monoxide (CO)	0.090 g/hp-hr; 15 ppmv at 15% O ₂ , dry	1-hour average and 12-month rolling basis
Volatile Organic Compounds (VOC)	0.089 g/hp-hr; 26 ppmv at 15% O ₂ , dry	1-hour average and 12-month rolling basis
Particulate Matter (PM/PM10/PM2.5)	0.038 g/hp-hr; 8 mg/Nm ³ at 15% O ₂ , dry	1-hour average and 12-month rolling basis
Formaldehyde	0.004 g/hp-hr; 0.7 ppmv at 15% O ₂ , dry	1-hour average and 12-month rolling basis
Ammonia (NH ₃)	10 ppmv at 15% O ₂ , dry	1-hour average and 12-month rolling basis

- A. Emissions from each 4-stroke lean burn natural gas fired engines, EPNs IC-1 through IC-24, shall be limited to:
- (1) 6,300 hours of routine operation per rolling 12-month period, and
 - (2) 700 additional hours of engine startups per rolling 12-month period not to exceed the following:
 - (a) 10 cold engine startups;
 - (b) 400 warm engine startups, and
 - (c) 290 hot engine startups
- B. The following apply to planned engine startups:
- (1) Each start-up shall be limited to 60 minutes of which 30 minutes are start-up and 30 minutes are routine operation.
 - (2) Emissions during startup shall not exceed the lb/hr emission limits on the MAERT when calculated on an hourly basis;
 - (3) A cold start is defined as a startup that occurs after the engine, SCR, and oxidation catalyst have been idle for greater than 48 hours;
 - (4) A warm start is defined as a startup that occurs after the engine, SCR, and oxidation catalyst have been idle for a period of between 6 and 12 hours;
 - (5) A hot start is defined as a startup that occurs after the engine, SCR, and oxidation catalyst have been idle for a period of 6 hours or less;
- C. Records of the hours of operation, engine startups, and the engine startup type shall be kept on a monthly and rolling 12-month basis shall be maintained by the holder of this permit.

Emergency Diesel Engines

8. Each diesel fired emergency engine (EPNs EMER-1, EMER-2, EMER-3, and EMER-4) shall be limited to 75 hours of non-emergency operation per year on a rolling 12-month period and must be equipped with a non-resettable runtime meter.

Fuel Specifications

9. Natural gas fired in all engines is limited to pipeline quality sweet natural gas containing no more than 0.2 grains/100 standard cubic feet total sulfur. The use of any other fuel will require an amendment to this permit.
10. Diesel fuel used for the emergency generators is limited to ultra-low sulfur diesel containing no more than 15 ppm by weight sulfur. If the fuel is designated ULSD on the fuel delivery receipt, then this is acceptable for showing compliance with sulfur limitations of this condition; otherwise, keep records of the sulfur content of the fuel based on receipts or chemical analyses. Records of diesel fuel delivery indicating date and quantity of fuel delivered shall be maintained.
11. Natural gas shall be sampled every 6 months to determine the total sulfur and net heating value. Test results from the fuel supplier may be used to satisfy this requirement.

Visible Emissions / Opacity

12. Opacity shall not exceed five percent averaged over a six-minute period from each exhaust stack or vent emission point and the determination shall be made as follows:
 - A. Visible emissions observations shall be performed and recorded at least once during each calendar quarter while the facilities are in operation unless the emission unit is not operating for the entire calendar quarter.
 - B. Visible emission observations shall be made while each facility is operating. Observations shall be made at least 15 feet and no more than 0.25 miles from the emission point(s). Up to three emission points may be read concurrently, provided that all three emission points are within a 70 degree viewing sector or angle in front of the observer such that the sun position is at the observer's back and 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 the 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, Test Method 9.
 - D. If the opacity exceeds five percent, corrective action to eliminate the cause of the excessive visible emissions shall be taken promptly and documented within one week of first observation.

Storage Tanks

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

Tank EPN	Service	Fill Rate (gallons/hour)	Rolling 12 Month Throughput (gallons)*
GW-1, GW-2	Waste coolant tank (aqueous ethylene glycol)	2,700	14,600
UREA TK-1, UREA TK-2, UREA TK-3, UREA TK-4	32.5% Aqueous Urea	20,000	335,800

* Throughput limits are per tank.

14. Storage tanks are subject to the following requirements:

- A. 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.

Waste coolant tanks are represented as black polyethylene and are exempt from this requirement. Diesel storage tanks for EPNs (EMER-1, EMER-2, EMER-3, and EMER-4) are integral into the engine housing and are exempt from this requirement.
- B. The permit holder shall maintain a record of tank throughput for the previous month and the past consecutive 12 month period for each tank.

Fugitives

Piping, Valves, Pumps, and Components in contact with Natural Gas that may be Odorized with Mercaptans – 28AVO

15. Except as may be provided for in the Special Conditions of this permit, the following requirements apply to the above-referenced equipment:

- A. Audio, olfactory, and visual checks for leaks within the operating area shall be made at least once every 24 hours for components in natural gas service that may be odorized with mercaptans (EPN NGFUG).
- B. Immediately, but no later than one hour upon detection of a leak, plant personnel shall take at least one of the following actions:
 - (1) Isolate the leak.
 - (2) Commence repair or replacement of the leaking component.
 - (3) Use a leak collection/containment system to prevent the leak until repair or replacement can be made if immediate repair is not possible.

Date and time of each inspection shall be noted in the operator's log or equivalent. Records shall be maintained at the plant site of all repairs and replacements made due to leaks. These records shall be made available to representatives of the Texas Commission on Environmental Quality (TCEQ) upon request.

Initial Determination of Compliance

16. The holder of this permit shall perform stack sampling or performance testing as required to establish the actual pattern and quantities of air contaminants being emitted into the atmosphere from each of the Wartsila 18V50SG-D engines (EPNs IC-1 through IC-24). The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at their 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 to schedule a pretest meeting. 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 used to determine engine horsepower load during sampling period.

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

- B. Air contaminants emitted from the Wartsila 18V50SG-D engines (EPNs IC-1 through IC-24) to be tested for include (but are not limited to) NO_x, CO, VOC, Formaldehyde, NH₃, and O₂.
- 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 and at such other times 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. Engine emissions and exhaust flow rates shall be determined using EPA methodology approved by the TCEQ Regional Director prior to sampling. EPA test methods referenced by Wartsila include EPA Method 3A, 7E, 10, 18, 323, California Air Resources Board Method 430, and Bay Area Air Quality Management District Method ST-1B. Stack sampling or performance testing must be conducted within 10 percent of peak load (100 percent of highest achievable MW output load).

Each performance test shall include three separate test runs, and each test run must be conducted within 10 percent of peak load (100 percent of highest achievable MW output load) and last at least 1 hour. Primary engine operating parameters that affect the emission

rate shall be monitored and recorded during each performance test. Operating parameters for the SCR and Oxidation Catalyst systems including, but not limited to, catalyst inlet temperature, pressure drop, NO_x sensor readings, and urea/NH₃ flow rate shall be monitored and recorded during each performance test.

Additional monitored parameters shall be determined at the pretest meeting and shall be stated in the sampling report. Permit allowable emissions and emission control requirements shall not be waived and apply during performance testing and stack sampling.

- 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:
 - (1) One copy to the appropriate TCEQ Regional Office.
 - (2) One copy to each local air pollution control program.
 - (3) One copy to the EPA as required in applicable federal subparts.
- F. Sampling ports and platform(s) shall be incorporated into the design of each stack 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

- 17. The holder of this permit shall begin performing the following for the Wartsila 18V50SG-D engines (EPNs IC-1 through IC-24) identified on the MAERT within 180 days of the completion of initial stack test per Special Condition No. 16.
 - A. Permit holders must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions.
 - B. Subsequent performance testing or stack sampling, following the requirements in Special Condition No. 16, shall be conducted as follows:
 - (1) The earlier of once every 8,760 hours or once every three years for NO_x, CO, and VOC as required by 40 CFR Part 60, Subpart JJJJ;
 - (2) Once every 6-months for Formaldehyde as required by 40 CFR Part 63, Subpart ZZZZ. The frequency of subsequent performance tests may be reduced to annual after two successful performance tests. If the results of any subsequent annual performance test indicate an engine is not in compliance with the formaldehyde emission limitation, deviations from operating limitations occur, performance tests must be conducted once every 6-months;
 - (3) The earlier of once every 8,760 hours or once every three years for NH₃ slip in conjunction with the testing in Special Condition No. 17.B.(1).Requests to waive or modify subsequent performance testing must be approved by the TCEQ Regional office or EPA Administrator.
 - C. Within 30 days after each occurrence of engine maintenance which is reasonably expected to affect emissions, such as oxygen sensor replacement, air fuel ratio controller replacement,

catalyst cleaning, or catalyst replacement, the engine shall be tested for NO_x, CO, and VOC or Formaldehyde compliance with the emission limits in this permit. Sensors and/or hand held portable analyzer instruments shall be operated and calibrated per manufacturers' instructions. Analysis and calibration results shall be recorded

18. The NH₃ slip concentration in each Exhaust Stack (EPNs IC-1 through IC-24) shall be monitored/calculated according to one of the methods below. Monitoring/calculating NH₃ slip is only required on days when the SCR unit is in operation. Accuracy of the NH₃ slip concentration method shall be verified against the stack test required in SC 17.B.(3).
- A. The NH₃ slip may be measured using a sorbent or stain tube device specifically for NH₃ measurement.
- (1) The frequency of sorbent stain tube testing shall be daily for the first 60 days after the start of operation, and after catalyst replacement. The frequency may be reduced to weekly testing if operating procedures have been developed to prevent excess amounts of ammonia from being introduced in the SCR unit and when operation of the SCR unit has been proven successful with regard to controlling NH₃ slip. Records of the operating procedures shall be maintained.
 - (2) If the measured ammonia slip concentration exceeds 5 ppm for the average of three consecutive weekly sorbent or stain tube tests in a four-week period or 8 ppm in any one sorbent or stain tube test, the permit holder shall begin NH₃ testing by either the Phenol Nitroprusside Method, the Indophenol Method, or the EPA Conditional Test Method (CTM) 27 on a quarterly basis, in addition to the weekly sorbent or stain tube testing.

The quarterly testing shall continue until such time as the SCR unit catalyst is replaced. If the quarterly testing indicates NH₃ slip is 3 ppm or less for 8 consecutive weekly tests, the Phenol Nitroprusside/Indophenol/CTM 27 tests may be suspended until sorbent/stain tube testing again indicate 5 ppm NH₃ slip or greater for three consecutive weekly tests. These results shall be recorded and used to determine compliance with Special Condition No. 7 and the MAERT. Compliance with Special Condition No. 7 and the MAERT shall also be determined each time the engine is tested pursuant to Special Condition No. 16.
- B. The permit holder may determine the NH₃ slip using the mass balance method referenced in 30 TAC Chapter 117.8130(1). The permit holder shall install and operate dual NO_x sensors on the SCR system. One NO_x sensor shall be located upstream of the SCR catalyst and the urea injection system. The second NO_x sensor shall be located downstream of the SCR catalyst and upstream of the oxidation catalyst. The NH₃ slip concentration shall be calculated from the delta between the two NO_x sensor readings and the urea injection rate using the equation in 30 TAC Chapter 117.8130(1).
- C. The permit holder may install and operate NO_x sensor located upstream of the SCR system, which may be used in association with the SCR efficiency, and the urea injection rate to estimate NH₃ slip. This condition shall not be construed to set a minimum NO_x reduction efficiency on the SCR unit.
- D. The permit hold may install, calibrate, maintain, and operate a Continuous Emission Monitoring System (CEMS) or similar device (Tunable Diode Laser) to measure and record the concentration of NH₃ slip in the stack.
- E. Any other method used for measuring NH₃ slip shall require prior approval from the TCEQ Air Permits Division and Midland Regional Office

19. Following the initial performance test required by Special Condition No. 16, the SCR and Oxidation Catalyst systems shall be continuously monitored during routine operations as follows:
 - A. Permit holders must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the SCR and Oxidation catalysts in a manner consistent with good air pollution control practice for minimizing emissions.
 - B. The Oxidation Catalyst is subject to the following requirements:
 - (1) The oxidation catalyst shall be maintained so that the pressure drop across the catalyst does not change by more than 2 inches of water from the pressure drop across the catalyst measured during the initial performance test.
 - (2) The pressure drop shall be monitored and recorded at least once per calendar month when the engine is in operation.
 - (3) The oxidation catalyst inlet temperature must be greater than or equal to 450 °F and less than or equal to 1350 °F. The catalyst temperature shall be measured and recorded at least once every 15-minute while the engine is in operation. The temperature data shall be reduced to a 1-hour rolling average.
 - C. Install and operate a monitoring device capable of recording the inlet flue gas temperature to the SCR and Oxidation catalyst. The monitoring device shall be calibrated according to the manufacturer's specifications or at least annually. The monitoring device shall be accurate to 2% of reading or 2.5 degrees Celsius.
20. NO_x sensors shall be installed on each engine. The sensors shall be maintained and replaced per manufacturer recommendations. The sensors shall be connected to a visible or audible indicator of the proper NO_x emissions and checks of the indicator shall be made at least weekly.
21. The holder of this permit shall either measure, or develop a program to calculate, the total mass flow rate through the stacks to ensure continuous compliance with the emission limitations specified in the MAERT.

After the initial demonstration of compliance, ongoing compliance with the PM/PM10/PM2.5, SO₂, and H₂SO₄ tons per year emission rates in the MAERT shall be demonstrated by calculating rolling 12-month annual emissions from emission factors (lb/MMBtu, HHV) obtained from the results of the sampling required by Special Condition Number Nos. 16 and 17 and the monthly total heat input (MMBtu, HHV) from natural gas fuel.

Maintenance, Startup, and Shutdown

22. This permit authorizes the emissions from the planned MSS activities listed in Attachment A, Attachment B, and the table entitled "Emission Sources - Maximum Allowable Emission Rates" (MAERT) attached to this permit.
23. The number of planned startup activities of the Wartsila 18V50SG-D engines (EPNs IC-1 through IC-24) shall be limited those in Special Condition No. 8.B.
24. 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.

25. Compliance with the emissions limits for planned non-ILE maintenance activities identified in Attachment B may be demonstrated as follows.
 - A. For each pollutant emitted during planned MSS activities whose emissions occur through a stack, the permit holder shall for each calendar month determine the total emissions of the pollutant.
 - B. 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.
 - C. Sum all emissions from planned maintenance activities on a 12-month rolling basis for each EPN to show compliance with the MAERT.

Greenhouse Gas Emissions

26. Permit holders 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.
27. 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 and in this permit.
28. The permit holder shall calculate the CO₂e 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.

Recordkeeping Requirements

29. 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 Texas Commission on Environmental Quality (TCEQ), EPA, or any local air pollution control agency with jurisdiction:
 - A. A copy of this permit.
 - B. Permit application received September 15, 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 that may be conducted on units authorized under this permit after the date of issuance of this permit.
30. 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 dates, times, and durations for startup and routine operations of each Wartsila 18V50SG-D Engines, EPNs IC-1 through IC-24.
 - B. Records of the amount of natural gas fired each month and rolling 12-month totals in each Wartsila 18V50SG-D Engines, EPNs IC-1 through IC-24.
 - C. Records of the hours of operation including date, time, and duration of the emergency engine and monthly diesel fuel deliveries including delivery dates and fuel quantities to demonstrate compliance with Special Condition Nos. 9 and 11.
 - D. Records of the sulfur content of natural gas fuel fired in the units at the site as specified in Special Condition No. 10.
 - E. Records of the sulfur content of diesel fuel fired in the units as specified in Special Condition No. 10.
 - F. Records of visible emissions, opacity observations, monitoring data, and any corrective action taken to demonstrate compliance with Special Condition No. 12.
 - G. Records of the monthly storage tank services and throughputs specified in Special Condition No. 14.B to demonstrate compliance with Special Condition No. 13.
 - H. Records that demonstrate compliance with the requirements of 28AVO as specified in Special Condition No. 15.
 - I. Records of initial and subsequent performance testing or stack testing as specified in Special Condition Nos. 16 and 17.
 - J. Records of NH₃ slip measurements as specified in Special Condition No. 18.
 - K. Records of engine, SCR, and Oxidation catalyst maintenance, temperatures, and pressure drop as specified in Special Condition No. 19.
 - L. Records of monitored or calculated MSS emissions as specified in Special Condition Nos. 23 through 25 for ILE and non-ILE activities, respectively.
 - M. Records of GHG emissions, and how they were determined, to show compliance with Special Condition Nos. 33 to 36.

Date: TBD

Permit Numbers 181523, PSDTX1678, and GHGPSDTX258

Attachment A

Inherently Low Emitting (ILE) Activities

Activity	EPN	Emissions						
		NO _x	CO	VOC/ HAPs	PM/ PM ₁₀ / PM _{2.5}	SO ₂	NH ₃	CO _{2e}
Filter Maintenance	MFC-1				X			
Sludge Maintenance	SLUDGE			X				
Fugitive Venting	FUG-VENT			X			X	

Date: TBD

DRAFT

Permit Numbers 181523, PSDTX1678, and GHGPSDTX258

Attachment B

Non-ILE Planned Maintenance Activities

Activity	EPN	Emissions						
		NOx	CO	VOC/ HAPs	PM/ PM ₁₀ / PM _{2.5}	SO ₂ / H ₂ SO ₄	NH ₃	CO _{2e}
Cold, Warm, and Hot start-up of Wartsila 18V50SG-D four-stroke lean burn engines	IC-1 through IC-24	X	X	X	X	X	X	X

Date: TBD

Emission Sources - Maximum Allowable Emission Rates

Permit Number 181523, PSDTX1678, and GHGPSDTX258

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 Rates	
			lbs/hour	TPY (4)
IC-1 through IC-24 (7)	Engines 1 through 24 routine emissions – Wartsila 18V50SG	VOC	4.95	--
		NO _x	2.46	--
		CO	4.99	--
		PM	2.13	--
		PM ₁₀	2.13	--
		PM _{2.5}	2.13	--
		SO ₂	0.09	--
		NH ₃	2.02	--
		Formaldehyde (6)	0.25	--
		HAPs	0.06	--
		H ₂ SO ₄	0.01	--
IC-1 through IC-24 (7)	Engines 1 through 24 start up emissions – Wartsila 18V50SG	VOC	5.78	--
		NO _x	11.43	--
		CO	17.70	--
		PM	3.07	--
		PM ₁₀	3.07	--
		PM _{2.5}	3.07	--
		SO ₂	0.09	--
		NH ₃	2.48	--
		H ₂ SO ₄	0.01	--

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
IC-1 through IC-24 (8)	Engines 1 through 24 annual emissions – Wartsila 18V50SG	VOC	--	17.50
		NO _x	--	9.88
		CO	--	21.06
		PM	--	7.78
		PM ₁₀	--	7.78
		PM _{2.5}	--	7.78
		SO ₂	--	0.31
		NH ₃	--	7.23
		Formaldehyde (6)	--	0.79
		HAPs	--	0.96
		H ₂ SO ₄	--	0.02
EMER-1	Volvo Emergency Diesel Engine	VOC	0.22	0.01
		NO _x	11.21	0.42
		CO	0.82	0.03
		PM	0.15	0.01
		PM ₁₀	0.15	0.01
		PM _{2.5}	0.15	0.01
		SO ₂	<0.01	0.01
		Formaldehyde (6)	<0.01	0.01
EMER-2	Volvo Emergency Diesel Engine	VOC	0.22	0.01
		NO _x	11.21	0.42
		CO	0.82	0.03
		PM	0.15	0.01
		PM ₁₀	0.15	0.01
		PM _{2.5}	0.15	0.01
		SO ₂	<0.01	0.01
		Formaldehyde (6)	<0.01	0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
EMER-3	Volvo Emergency Diesel Engine	VOC	0.22	0.01
		NO _x	11.21	0.42
		CO	0.82	0.03
		PM	0.15	0.01
		PM ₁₀	0.15	0.01
		PM _{2.5}	0.15	0.01
		SO ₂	<0.01	0.01
		Formaldehyde (6)	<0.01	0.01
EMER-4	Volvo Emergency Diesel Engine	VOC	0.22	0.01
		NO _x	11.21	0.42
		CO	0.82	0.03
		PM	0.15	0.01
		PM ₁₀	0.15	0.01
		PM _{2.5}	0.15	0.01
		SO ₂	<0.01	0.01
		Formaldehyde (6)	<0.01	0.01
UREA TK-1 (9)	Urea Storage Tank	NH ₃	0.07	--
UREA TK-2 (9)	Urea Storage Tank	NH ₃	0.07	--
UREA TK-3 (9)	Urea Storage Tank	NH ₃	0.07	--
UREA TK-4 (9)	Urea Storage Tank	NH ₃	0.07	--
UREA Cap (10)	Urea Storage Tank Cap	NH ₃	--	0.02
GW-1	Waste coolant tank (ethylene glycol)	VOC	<0.01	<0.01
GW-2	Waste coolant tank (ethylene glycol)	VOC	<0.01	<0.01
DIESEL TK-1	Diesel Tank	VOC	0.05	<0.01
DIESEL TK-1	Diesel Tank	VOC	0.05	<0.01
DIESEL TK-1	Diesel Tank	VOC	0.05	<0.01
DIESEL TK-1	Diesel Tank	VOC	0.05	<0.01

Emission Sources - Maximum Allowable Emission Rates

Emission Point No. (1)	Source Name (2)	Air Contaminant Name (3)	Emission Rates	
			lbs/hour	TPY (4)
NGFUG	Natural Gas Fugitives	VOC	0.08	0.37
MFC-1	Miscellaneous Maintenance Filter Changes	PM	<0.01	0.01
		PM ₁₀	<0.01	<0.01
		PM _{2.5}	<0.01	<0.01
SLUDGE	Sludge Management	VOC	<0.01	<0.01
FUG-VENT	Fugitive Venting	VOC	0.06	<0.01
		NH ₃	0.01	<0.01

- (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) VOC - volatile organic compounds as defined in Title 30 Texas Administrative Code § 101.1
 - NO_x - total oxides of nitrogen
 - SO₂ - sulfur dioxide
 - PM - total particulate matter, suspended in the atmosphere, including PM₁₀ and PM_{2.5}, as represented
 - 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
 - HAP - hazardous air pollutant as listed in § 112(b) of the Federal Clean Air Act or Title 40 Code of Federal Regulations Part 63, Subpart C
 - H₂SO₄ - sulfuric acid
 - NH₃ - ammonia
- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period.
- (5) Emission rate is an estimate and is enforceable through compliance with the applicable special condition(s) and permit application representations.
- (6) Formaldehyde emissions are represented separately and are not included in the HAP emission representations.
- (7) Short-term (lb/hr) emissions are representative of a single four-stroke lean burn spark ignited engine. This permit authorizes 24 identical individual engines.
- (8) Long-term (tpy) emissions are representative of the combined annual emissions associated with routine and start-up emissions from a single four-stroke lean burn spark ignited engines. This permit authorizes 24 identical individual engines.
- (9) An aqueous urea solution of ~32% urea is stored in the urea tanks. Emission estimates are based on 0.2% ammonia in the tanks.
- (10) EPN UREA CAP represents the total annual emissions from the four authorized Urea storage tanks.

Date: _____

Emission Sources - Maximum Allowable Emission Rates

Permit Number 181523, PSDTX1678, and GHGPSDTX258

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)
IC-1 through IC-24 (6)	Engines 1 through 24 annual emissions – Wartsila 18V50SG	CO ₂ (5)	58,939.66
		CH ₄ (5)	1.02
		N ₂ O (5)	0.11
		CO ₂ e	58,998.54
EMER-1	Volvo Emergency Diesel Engine	CO ₂ (5)	15.77
		CH ₄ (5)	0.01
		N ₂ O (5)	<0.01
		CO ₂ e	15.78
EMER-2	Volvo Emergency Diesel Engine	CO ₂ (5)	15.77
		CH ₄ (5)	0.01
		N ₂ O (5)	<0.01
		CO ₂ e	15.78
EMER-3	Volvo Emergency Diesel Engine	CO ₂ (5)	15.77
		CH ₄ (5)	0.01
		N ₂ O (5)	<0.01
		CO ₂ e	15.78
EMER-4	Volvo Emergency Diesel Engine	CO ₂ (5)	15.77
		CH ₄ (5)	0.01
		N ₂ O (5)	<0.01
		CO ₂ e	15.78
NGFUG	Natural Gas Fugitives	CO ₂ e	986.3

(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

CO₂e - 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).

Emission Sources - Maximum Allowable Emission Rates

- (4) Compliance with annual emission limits (tons per year) is based on a 12-month rolling period. These rates include emissions from maintenance, startup, and shutdown.
- (5) Emission rate is given for informational purposes only and does not constitute enforceable limit.
- (6) Long-term (tpy) emissions are representative of the combined annual emissions associated with routine and start-up emissions from a single four-stroke lean burn spark ignited engines. This permit authorizes 24 identical individual engines.

Date: TBD

DRAFT

Preliminary Determination Summary

Pecos Power Plant LLC
Permit Numbers 181523, PSDTX1678, and GHGPSDTX258

I. Applicant

Pecos Power Plant LLC
20 Greenway Plaza Ste 650
Houston, TX 77046-2026

II. Project Location

Pecos Power Plant
4200 South Tolivar St
Reeves County
Pecos, Texas 79772

III. Project Description

Pecos Power Plant, LLC (Pecos Power) is located in Pecos, Reeves County, Texas. Pecos Power submitted an initial air permit application to authorize the construction of twelve (12) new natural gas fired engines as Pecos 2, and the consolidation of 12 natural gas fired engines authorized under Electricity Generating Unit (EGU) Standard Permit (SP) Number 178378 as Pecos 1. Upon issuance a total of 24 engines and auxiliary equipment will be authorized, and EGU SP 178378 will be voided. The power plant is considered a peaking plant and will be used to supply electricity to the power grid.

Each electricity generating engine is proposed to be a Wartsila 18V50SG-D reciprocating internal combustion engine. These are four-stroke lean burn (4SLB) engines with a rated capacity of approximately 19 MW, 25,000 horsepower, each. The engines will be equipped with a selective catalytic reduction (SCR) system for the control of nitrogen oxides (NO_x) and an oxidation catalyst system for the control carbon monoxide (CO) and volatile organic compounds (VOC). In addition to the 24 natural gas fired engines, 4 diesel fired black start emergency engines, storage tanks, and associated piping will be authorized. Maintenance, Startup, and Shutdown (MSS) will be authorized under this permit, NSR Permit 181523.

This permit is subject to Prevention of Significant Deterioration (PSD) review for NO_x, CO, VOC (as an ozone precursor), and particulate matter including particulate matter with diameters of 10 microns or less and 2.5 microns or less (PM/PM₁₀/PM_{2.5}), and greenhouse gases (GHGs as CO₂e). Other air contaminants emitted at the site include hazardous air pollutants (HAPs), formaldehyde, sulfur dioxide (SO₂), and sulfuric acid mist (H₂SO₄).

IV. Emissions

Air Contaminant	Proposed Allowable Emission Rates (tpy)
VOC	420.50
NO _x	238.75
SO ₂	7.55
CO	505.58
PM	186.82
PM ₁₀	186.82

Air Contaminant	Proposed Allowable Emission Rates (tpy)
PM _{2.5}	186.82
H ₂ SO ₄	0.46
NH ₃	173.60
Formaldehyde	18.94
HAPs	23.12
CO ₂ *	1,414,615
CH ₄ *	25.48
N ₂ O*	2.68
CO ₂ Equivalents (CO ₂ e)**	1,417,014

*Emission rate is given for informational purposes only and does not constitute enforceable limit.
 **CO₂e 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, and 265 for N₂O

The proposed allowable emission rates above include planned MSS emissions. The draft special conditions contain limitations on the number of startups, type of startup, and total duration of startups for the 24 identical Wartsilla four stroke lean-burn (4SLB) natural gas fired engines (EPNs IC-1 through IC-24). These startup emissions are also listed separately from the routine emissions in the Maximum Allowable Emission Rates Table (MAERT). 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. The draft special terms and conditions and MAERT have requirements and emission limits for these activities.

V. Federal Applicability

The Pecos Power site is located in Reeves County, which is in attainment for all pollutants. Nonattainment New Source Review is not applicable.

The proposed site is an existing minor site with baseline actual emissions of zero since the site has not commenced operation. For the purpose of PSD review, the project increases include those currently authorized under EGU SP 178378 and those proposed with this NSR Project. The site is an un-named source; therefore, the PSD major source threshold is 250 tons per year for each pollutant. Routine and MSS emissions, on an annual basis, are included in all represented emission totals. As shown below, the project increases of VOC and CO exceed the major source thresholds for PSD.

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 (SER) thresholds. As shown in the table, PM, PM₁₀, PM_{2.5}, and NO_x all exceed the respective SER and are subject to PSD review. Since the site is major with respect to PSD,

GHGs as CO₂e must be evaluated for PSD applicability. GHG emissions were also evaluated and found to exceed the major source threshold. PSD and GHG review are applicable as shown in the table below.

As a PSD “anyway” source, meaning PSD is triggered for a non-GHG pollutant, GHGs as CO₂e must be evaluated for PSD applicability. As shown in the table, the GHG annual emission rate as CO₂e is greater than the PSD significant emission rate threshold of 75,000 tpy.

In summary, the project triggers PSD review for CO, VOC, NO_x, PM, PM₁₀, PM_{2.5}, and GHGs as CO₂e. PSD is not triggered for SO₂ nor H₂SO₄, and these pollutants are addressed in the Minor NSR and Air Toxics Review section. Similarly, Ammonia (NH₃) and Formaldehyde were addressed in the Minor NSR and Air Toxics Review section.

Pollutant	Project Emissions Increase (tpy)	New Major Source Threshold (tpy)	New Major Source Threshold Exceeded?	Significant Emission Rate (tpy)	Significant Emission Rate Exceeded?	PSD Triggered
CO	505.58	250	Yes	100	N/A*	Yes
VOC	420.50	250	Yes	40	N/A*	Yes
NO _x	238.75	250	No	40	Yes**	Yes
PM	186.82	250	No	25	Yes**	Yes
PM ₁₀	186.82	250	No	15	Yes**	Yes
PM _{2.5}	186.82	250	No	10	Yes**	Yes
SO ₂	7.55	250	No	40	No	No
H ₂ SO ₄	0.46	250	No	7	No	No
GHG as CO ₂ e	1,417,014	N/A	N/A	75,000	Yes**	Yes

*The project emission increase exceeded the PSD major source threshold; therefore, these pollutants were not compared to the SER.

**Pollutants that did not exceed the PSD major source threshold are compared to the PSD SER to determine if PSD is triggered for these pollutants. GHGs as CO₂e are also evaluated against the GHG SER.

*** CO₂e emissions are based on the 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.

VI. Control Technology Review

The table below summarizes the proposed BACT for each emission point and for each of the pollutants that triggered PSD review: NO_x, CO, VOC, PM, PM₁₀, PM_{2.5}, and GHGs as CO₂e. In addition to PSD pollutants, BACT is evaluated for other pollutants including HAPs, formaldehyde, NH₃, SO₂, and H₂SO₄. The applicant submitted RACT/BACT/LAER Clearinghouse (RBLC) database search summaries for the pollutants that triggered PSD review (NO_x, CO, VOC, PM, PM₁₀, PM_{2.5}, and GHGs as CO₂e), and these RBLC search summary results are included in the table below. Consistent with guidance provided in APDG 6110, Pecos Power provided a BACT analysis based on recently approved permits within the State of Texas, recently approved permits from other states, and control technologies contained within the EPA’s RBLC database. A summary of the BACT descriptions for each EPN is in the table below.

Source Name	EPN	Best Available Control Technology Description
Engines 1 through 24 routine emissions – Wartsila 18V50SG	IC-1 through IC-24	<p>This permit will authorize 24 identical Wartsila 4-stroke lean burn natural gas fired engines. These engines are spark ignited reciprocating internal combustion engines. Each engine will have a rating of 18.87 MW or approximately 25,000 horsepower. The engines will be used to supply electric power to the power grid and are categorized as peaking units. Each engine will be equipped with an SCR and oxidation catalyst system. The reagent used for the SCR will be urea, which will decompose into NH₃ in the hot exhaust stream where it will then react with NO_x across the SCR. SCR and Oxidation Catalysts have been established as BACT for engines similar to the Wartsila engines.</p> <p>The applicant’s RBLC search focused on the process type “17.130 – Large Internal Combustion Engines (>500 hp), Natural Gas” for all pollutants in all states. The applicant noted that the majority of the engines in the RBLC search were much smaller engines (<10 MW) when compared to the Wartsila Engines authorized in this permit (~19 MW). A total of four sites were found to have similar spark ignited reciprocating internal combustion engines:</p> <ul style="list-style-type: none"> - Mid-Kansas Electric Company Rubart Station, - South Texas Electric Cooperative Red Gate Power Plant, - City of Tallahassee Utilities Division, and - Wisconsin Public Service Corporation Weston Plant. <p>Note that the Red Gate Power Plant was authorized more than 10 years in the past; however, it is included in this BACT Review since it is a TCEQ issued permit. The same type of engines, Wartsila, were authorized with the Red Gate Power Plant.</p> <ul style="list-style-type: none"> - NO_x: The permitted emission factor representations are 0.044 grams per horsepower-hour (g/hp-hr) and 4.5 part per million by volume (ppmv) at 15% oxygen, dry basis (O₂, dry). The NO_x emission rates will be achieved using an SCR system with urea as the reagent. Tier 1 BACT, based on the TCEQ’s Combustion Spreadsheet, is 0.5 g/bhp-hr for engines greater than or equal to 500 hp. 0.7 g/bhp-hr is acceptable with vendor guarantee. Based on the RBCL information provided and the TCEQ’s published BACT spreadsheet, Tier 1 BACT is met for NO_x emissions. <p>The Mid-Kansas Electric Company Rubart Station was subject to PSD and authorizes 10 4SLB engines rated at 10 MW using SCR for NO_x control. Short-term NO_x emission rates were provided, and no NO_x emission factors were provided. Based on the permitted emission</p>

Source Name	EPN	Best Available Control Technology Description
		<p>rates and approximate horsepower, the calculated NOx emission factor is approximately 0.07 gr/hp-hr.</p> <p>The Red Gate Power Plant was subject to PSD and authorizes 12 Wartsila 4SLB engines rated at 18 MW. The represented NOx emission factor was 0.084 gr/hp-hr. SCR is used to control the NOx emissions.</p> <p>- CO: The permitted emission factor representations are 0.090 g/hp-hr and 15 ppmv at 15% O2, dry. The CO emission rates represented will be achieved using an oxidation catalyst that oxidizes CO resulting from incomplete combustion to CO2. The oxidation catalyst is expected to achieve a DRE of 93% or greater. Tier 1 BACT, based on the TCEQ's Combustion Spreadsheet, is 3.0 g/hp-hr achieved through good combustion practices. Based on the RBCL information provided and the TCEQ's published BACT spreadsheet, Tier 1 BACT is met for CO emissions.</p> <p>The Mid-Kansas Electric Company Rubart Station was subject to PSD and authorizes 10 4SLB engines rated at 10 MW using an oxidation catalyst for emission control. Short-term permitted emission rates for CO were provided, and no CO emission factors were provided. Based on the permitted emission rates and approximate horsepower, the approximate calculated CO emission factor is 0.13 gr/hp-hr.</p> <p>Wisconsin's Weston Plant was subject to PSD review for CO. The authorized engines appear to be the same model as authorized by Pecos Power with a rating of ~19 MW and 25,000 hp. An oxidation catalyst is used for the control of CO and VOC. The CO emission factor for these engines is represented to be 14 ppmv at 15% O2, dry. Based on the permitted emission rates and approximate horsepower, the approximate calculated CO emission factor is 0.08 gr/hp-hr.</p> <p>The City of Tallahassee authorized four Wartsila engines identical to those at the Pecos Power Plant. An oxidation catalyst is used for the control of CO and VOC. No CO emission factors or data was provided in the RBLC database search.</p> <p>The Red Gate Power Plant was subject to PSD and authorizes 12 Wartsila 4SLB engines rated at 18 MW. The represented CO emission factor was 0.3 gr/hp-hr. An oxidation catalyst is used to control the CO and VOC emissions.</p> <p>- VOC: The permitted emission factor representations are</p>

Source Name	EPN	Best Available Control Technology Description
		<p>0.089 g/hp-hr 26 ppmv at 15% O₂, dry. The VOC emission rates represented will be achieved using an oxidation catalyst that oxidizes VOCs resulting from incomplete combustion into CO₂ and H₂O vapor. The oxidation catalyst is expected to achieve a DRE of 93% or greater. Tier 1 BACT, based on the TCEQ's Combustion Spreadsheet, is 1.0 g/bhp-hr achieved through good combustion practices. Based on the RBCL information provided and the TCEQ's published BACT spreadsheet, Tier 1 BACT is met for VOC emissions.</p> <p>The Mid-Kansas Electric Company Rubart Station was subject to PSD and authorizes 10 4SLB engines rated at 10 MW using an oxidation catalyst for emission control. Short-term VOC permitted emission rates were provided, and no VOC emission factors were provided. Based on the permitted emission rates and approximate horsepower, the approximate calculated VOC emission factor is 0.20 gr/hp-hr.</p> <p>Wisconsin's Weston Plant was subject to PSD review for CO. VOC emission rates were also provided. The authorized engines appear to be the same model as authorized by Pecos Power with a rating of ~19 MW and 25,000 hp. An oxidation catalyst is used for the control of VOC. Based on the permitted emission rates and approximate horsepower, the approximate calculated VOC emission factor is 0.08 gr/hp-hr.</p> <p>The City of Tallahassee authorized four Wartsila engines identical to those at the Pecos Power Plant. An oxidation catalyst is used for the control of CO and VOC. VOC emissions were represented as 0.09 g/hp-hr.</p> <p>The Red Gate Power Plant was subject to PSD and authorizes 12 Wartsila 4SLB engines rated at 18 MW. The represented VOC emission factor was 0.3 gr/hp-hr. An oxidation catalyst is used to control the CO and VOC emissions.</p> <p>- PM/PM10/PM2.5: The Pecos Power engines permitted emission factor representations are 0.038 g/hp-hr 8 mg/Nm³ at 15% O₂, dry. This will be achieved using good combustion practices and low-sulfur fuel. Tier 1 BACT, based on the TCEQ's Combustion Spreadsheet, is good combustion practices and engines that are limited to firing fuels which meet the requirements of 40 CFR §72.2 or §80.1604. Additionally, 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. Based on the</p>

Source Name	EPN	Best Available Control Technology Description
		<p>RBCL information provided and the TCEQ's published BACT spreadsheet, Tier 1 BACT is met for PM/PM10/PM2.5 emissions.</p> <p>The Mid-Kansas Electric Company Rubart Station was subject to PSD and authorizes 10 4SLB engines rated at 10 MW. Short-term PM permitted emission rates were provided, and no PM emission factors were provided. Based on the permitted emission rates and approximate horsepower, the approximate calculated PM emission factor is 0.044 gr/hp-hr.</p> <p>Wisconsin's Weston Plant was subject to PSD review for CO. PM emission rates were also provided. The authorized engines appear to be the same model as authorized by Pecos Power with a rating of ~19 MW and 25,000 hp. Low sulfur fuel and good combustion practices are used to control PM emissions. Based on the permitted emission rates and approximate horsepower, the approximate calculated PM emission factor is 0.04 gr/hp-hr.</p> <ul style="list-style-type: none"> - NH3: The Pecos Power engines permitted emission factor for NH3 slip is 10 ppmv at 15% O2, dry. TCEQ Tier 1 BACT for NH3 emissions is a limit of 10ppmv at 15% O2, dry. The permitted NH3 emission factor representations are 10 ppmv at 15% O2, dry. Tier 1 BACT for NH3 slip will be met. - Formaldehyde: The permitted emission factor representations for formaldehyde are 0.004 g/hp-hr 0.7 ppmv at 15% O2, dry. Formaldehyde emissions will be controlled using an oxidation catalyst. See the VOC discussion above. BACT will be satisfied based on the use of an oxidation catalyst. - Hazardous Air Pollutants (HAPs): The permitted HAP emissions aer based on the EPA's Table 3.1-3 for natural gas combustion. Pecos Power has assumed that HAP emissions will be controlled at approximately 93% DRE using an oxidation catalyst. See the VOC discussion above. BACT will be satisfied based on the use of an oxidation catalyst. - SO2: Pecos Power assumed 100% conversion of sulfur contained in the natural gas to SO2. This is based on the EPA's guidance and a fuel sulfur content that is limited to 0.2 grains/100 standard cubic feet total sulfur. Tier 1 BACT is good combustion practices and firing pipeline quality natural gas with no more than 5 grains sulfur/100 dscf fuel on an hourly basis and 1 grain sulfur/100 dscf fuel on an annual basis. TCEQ Tier I BACT is met.

Source Name	EPN	Best Available Control Technology Description
		<ul style="list-style-type: none"> - H₂SO₄: Pecos Power assumed that 5% of the SO₂ resulting from the combustion of sulfur in the natural gas will be converted to H₂SO₄ across the oxidation catalyst. Consistent with the discussion above, Tier 1 BACT is good combustion practices and low sulfur fuel. Tier 1 BACT is satisfied. - GHG as CO₂e: Pecos Power used the natural gas combustion factors from Table C-1 in 40 CFR Part 98. The represented natural gas combustion emission factors are 117 lb/MMBtu (HHV) for CO₂, 2.2E-03 lb/MMBtu (HHV) for CH₄, and 2.2E-04 lb/MMBtu for N₂O taken from Table C-2 of 40 CFR 98 taken from Table C-1. The applicant stated that the overall emission factor for CO₂e was represented to be less than 1,000 lb/MW-hr. The RBLC database yielded emission factors of 1,110 lb/MW-hr for the engines at Wisconsin's Weston Power Plant and the City of Tallahassee. There is no established BACT for GHG as CO₂e from large natural gas fired engines. The calculated CO₂e emission factor for the Pecos Power engines is ~1,000 lb/MW-hr. BACT for GHG as CO₂e is satisfied. - Startup emissions for the engines have been based on a total of 700 startups per 12-month rolling average with different startup numbers for cold, warm, or hot starts over a 12-month rolling period. The worst case emission rate, generally a cold start, has been assumed for the short-term and annual emission rate. Engine startup is expected to take as few as 10 minutes and up to 30 minutes depend on whether the start is hold, warm, or cold. Emissions of NO_x, CO, and VOC during startups are represented to be uncontrolled for the first 30 minutes of each hour and controlled (routine) for the last 30 minutes of each hour. Because these are considered peaking units, the number of startups per year will be based on the requirements of the power grid. <p>Based on the information above, Tier 1 BACT is satisfied for all pollutants subject to PSD review and all pollutants subject to minor/state NSR.</p>
Volvo Emergency Diesel Engine	EMER-1 through EMER-4	<p>The Volvo emergency diesel engines are EPA certified tier 2 engines. Each engine is rated for approximately 900 hp, or 600 kW. Based on the manufacturer specifications provided, each engine cylinder has a displacement of 16 liters.</p> <ul style="list-style-type: none"> - Hours of Operation: Each engine is limited to 75 hours per year. TCEQ Tier 1 BACT limits the hours of operation to 100 hours per year. Each engine will be equipped with a non-resettable run-time meter as required by SC 5.

Source Name	EPN	Best Available Control Technology Description
		<ul style="list-style-type: none"> - TCEQ Tier 1 BACT requires that compression ignited diesel engines meet the requirements of NSPS IIII. The emission limits in NSPS IIII for new diesel emergency engines with a cylinder displacement of 16 liters are as follows: Hydrocarbon + NOx = 6.2 g/KW-hr CO = 5.0 g/KW-hr PM = 0.14 g/KW-hr The manufacturer information and permit representations for the for the Volvo engines are as follows: Hydrocarbon + NOx = 0.11 + 5.63 = 5.74 g/KW-hr CO = 0.41 g/KW-hr PM = 0.076 g/KW-hr - Visible Emissions: Visible emission observations are required, and no visible emissions are authorized as required by SC 12. - SO2: Ultra-low sulfur diesel fuel will be fuel fired. The sulfur content of the fuel is 15 ppm by weight as required by SC 10. This meets TCEQ's Tier 1 BACT requirements for emergency diesel engines. <p>Based on the information provided above, Tier 1 BACT for emergency engines is satisfied.</p>
Urea Storage Tank	UREA TK-1 through UREA TK-4	<p>TCEQ's Tier 1 BACT for fixed roof storage tanks <25,000 gallons storing materials with a vapor pressure <0.5psia is that they be submerge filled with exterior surfaces painted white.</p> <p>Each Watsila engine is controlled by a SCR system that injects an aqueous solution of approximately 32% urea stream upstream of the catalyst. Four storage tanks are authorized at the site for urea storage. The tanks are fixed roof storage tanks that are 20,000 gallons. They are represented as submerged fill and white in color.</p> <p>The material stored is a solution that is 32% urea with the balance water. If there are any emissions from the storage tanks, it is largely expected to be water vapor, which is not considered an air pollutant. The vapor pressure of urea is very low, <0.0002 psia and does not require calculations based on the 1996 TCEQ memo "When should a compound be considered an air contaminant."</p> <p>However, due to possibility that a minor amount of aqueous NH3 may be in the urea solution, Pecos Power estimated emissions from the urea storage tanks. For a conservative estimate, Pecos Power assumed an ammonia concentration</p>

Source Name	EPN	Best Available Control Technology Description
		<p>of 0.2% in the storage tank calculations. The resulting emissions are negligible; however, for completeness the storage tanks are included in the permit and the only emissions represented are ammonia.</p> <p>For the urea storage tanks, Tier 1 BACT is satisfied.</p>
Waste Coolant Tank (ethylene glycol)	GW-1 and GW-2	<p>TCEQ's Tier 1 BACT for fixed roof storage tanks <25,000 gallons storing materials with a vapor pressure <0.5psia is that they be submerge filled with exterior surfaces painted white.</p> <p>The engines at the site are cooled by a closed loop ethylene glycol system. The glycol solution circulates through the engine blocks and then through cooling fans that are located at the site. Spent glycol is stored on-site in ~3,000 gallon tanks. Two such tanks are authorized. These are atmospheric storage tanks. Excluding the water in the tanks, the ethylene glycol has a very low vapor pressure, < 0.05 mm Hg, at the maximum storage temperature.</p> <p>The waste coolant tanks were conservatively represented as black tanks as they are expected to be plastic/poly tanks. Even with the conservative representation of black exterior, the emissions of ethylene glycol is estimated to be less than 10 pounds per year.</p> <p>Based on the emission rate, the vapor pressure of the ethylene glycol, BACT for this process is satisfied.</p>
Diesel Engine Belly Tanks	GW-1 and GW-2	<p>TCEQ's Tier 1 BACT for fixed roof storage tanks <25,000 gallons storing materials with a vapor pressure <0.5psia is that they be submerge filled with exterior surfaces painted white.</p> <p>The engines at the site are diesel engines. Diesel fuel tanks are integral into the design of the engines. They are represented to be black, the assumed color of the engine housing. Because they are limited to 75 hours of emergency operation per year, the emissions are estimated to be below 0.01 tpy. Based on the emission rate and that the tanks are integral into the engine housing/compartments, BACT for this process is satisfied.</p>
Natural Gas Fugitives	NGFUG	<p>The engines at the site are fueled by natural gas that is delivered via pipeline. Natural gas is primarily CH₄, which is classified as a GHG, with minor amounts of VOC. Fugitive emission estimates of CH₄ and VOC have been estimated based on the number of fugitive components, TCEQ Leak Detection and Repair (LDAR) factors, and natural gas speciation data using the TCEQ fugitive emissions workbook.</p> <p>Pipeline quality natural gas is typically odorized with a small</p>

Source Name	EPN	Best Available Control Technology Description
		<p>amount of mercaptans. No LDAR program nor component monitoring was proposed. This results in a conservatively high emission rate for components in natural gas service. In addition, the total uncontrolled VOC emissions at the site are <10 tons per year, and no LDAR monitoring program is required to meet TCEQ's Tier 1 BACT.</p> <p>However, the TCEQ's tier 1 BACT requires that an audio, visual, and olfactory (AVO) leak detection program be employed for components with odorous compound, such as mercaptans. SC 15 requires that the TCEQ's 28AVO LDAR program be conducted once every 24 hours.</p> <p>The applicant proposed in the RBCL database search and BACT discussion that an AVO program would be employed for fugitive GHG emissions of CH4 and CO2. Wisconsin's Weston plant also employed fugitive monitoring of components in NG service.</p> <p>28AVO monitoring of components in natural gas service for EPN NG FUG satisfies Tier 1 BAC.</p>
Maintenance, Startup, and Shutdown	MFC-1, SLUDGE, FUG-VENT	<p>Planned maintenance activities being authorized for the project include emissions from filter changes, sludge removal from tanks, natural gas venting from piping, and emission associated with startup of the Wartsila engines.</p> <ul style="list-style-type: none"> - Air intake filter maintenance – The proposed emission rates associated with air intake filter maintenance are based on emissions from EPA AP-42, 13.2.4 "Aggregate Handling and Storage Piles" (Equation 1). These estimates are based on a maximum of 300 activities/hour and 3,600 activities per year - Sludge maintenance – The VOC emissions from sludge maintenance were estimated an engineering estimate that the sludge removed from tanks, cooling systems, etc. would contain 5ppmv VOC. - Gas fuel venting – natural gas maintenance venting were estimated using an assumed hourly and annual volume of lines cleared, the fraction of VOC in the natural gas, and the ideal gas law to calculation the gas vented, including VOC. <p>During maintenance activities care will be taken to reduce spills and keep all material contained. The duration and frequency of activities will be limited. For planned MSS Activities BACT is satisfied.</p>

VII. Air Quality Analysis

The air quality analysis (AQA), as supplemented by ADMT, 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 24-hr and annual PM_{2.5}, 24-hr and annual PM₁₀, and 1-hr and annual NO₂ 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 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 memoranda¹, 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 memoranda².

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 ³ (µg/m ³)	De Minimis (µg/m ³)
PM ₁₀	24-hr	9	5
PM ₁₀	Annual	1.5	1
PM _{2.5} (NAAQS)	24-hr	8.4	1.2
PM _{2.5} (NAAQS)	Annual	1.4	0.13
PM _{2.5} (Increment)	24-hr	9.3	1.2
PM _{2.5} (Increment)	Annual	1.5	0.13

¹ www.tceq.texas.gov/assets/public/permitting/air/memos/guidance_1hr_no2naaqs.pdf

² www.tceq.texas.gov/permitting/air/modeling/epa-mod-guidance.html

³ Ground level maximum concentration

Pollutant	Averaging Time	GLCmax ³ (µg/m ³)	De Minimis (µg/m ³)
NO ₂	1-hr	66	7.5
NO ₂	Annual	1.8	1
CO	1-hr	116	2000
CO	8-hr	48	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 analyses. 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)⁴. 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 500 tpy Terry County source, the applicant estimated 24-hr and annual secondary PM_{2.5} concentrations of 0.0210 µg/m³ and 0.0006 µg/m³, respectively. When these estimates are added to the GLCmax listed in the table above, the results are above the De Minimis levels. Since the combined direct and secondary 24-hr and annual PM_{2.5} impacts are above the De minimis levels, a full impacts analysis is required.

In the MERPs calculation for PM_{2.5} and ozone, the applicant used the height variable of H. Since the heights of all precursor sources are less than 50 m, the height variable of L should have been used. However, ADMT evaluated the MERPs calculation using the proper height variable and determined that the overall conclusions of the analysis are not affected.

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	0.58	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 MERPs⁵. Using data associated with the 500 tpy Terry

⁴ https://www.epa.gov/sites/default/files/2020-09/documents/epa-454_r-19-003.pdf

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

County source, the applicant estimated an 8-hr O₃ concentration of 0.58 ppb. When the estimates of ozone concentrations from the project emissions are added together, the results are less than the De Minimis level.

B. Air Quality Monitoring

The De Minimis analysis modeling results indicate that 24-hr PM₁₀, annual NO₂, and 8-hr CO are below the respective monitoring significance level.

Table 3. Modeling Results for PSD Monitoring Significance Levels

Pollutant	Averaging Time	GLCmax (µg/m ³)	Significance (µg/m ³)
PM ₁₀	24-hr	9	10
NO ₂	Annual	1.8	14
CO	8-hr	48	575

The GLCmax in Table 3 represent 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.

Background concentrations for PM_{2.5} were obtained from the EPA AIRS monitor 481351014 located at 2700 Disney, Odessa, Ector County. The applicant used a three-year average (2022-2024) of the 98th percentile of the annual distribution of the 24-hr concentrations for the 24-hr value (18 µg/m³). The three-year average (2022-2024) of the annual concentrations was used for the annual value (7.2 µg/m³). The use of this monitor is reasonable based on a comparison of county-wide emissions, population, and a quantitative review of emissions sources in the surrounding area of the monitor site relative to the project site. The background concentrations were also used for full NAAQS analyses.

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 481410029 located at 10834 Ivanhoe, El Paso, El Paso 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 is reasonable based on a comparison of county-wide emissions, population, and a quantitative review of emissions from sources in the surrounding area of the monitor site relative to the project site.

C. National Ambient Air Quality Standards (NAAQS) Analysis

The De Minimis analysis modeling results indicate that 24-hr and annual PM_{2.5}, 24-hr and annual PM₁₀, and 1-hr and annual NO₂ 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 ₁₀	24-hr	8	57	65	150
PM _{2.5}	24-hr	7	18	25	35
PM _{2.5}	Annual	1.4	7.2	8.6	9
NO ₂	1-hr	59	61	120	188
NO ₂	Annual	2	10	12	100

The 24-hr PM₁₀ GLCmax is the maximum high, sixth high predicted concentration over five years of meteorological data.

The 24-hr PM_{2.5} GLCmax is the highest five-year average of the 98th percentile of the annual distribution of predicted 24-hr concentrations determined for each receptor.

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. ADMT could not verify the 1-hr NO₂ GLCmax reported in AQA. Using information provided by the applicant, ADMT supplemented the 1-hr NO₂ GLCmax using the modeling output.

For annual NO₂ GLCmax, the applicant used a concatenated five-year meteorological dataset in the annual NO₂ analysis and the five-year average GLCmax was reported in the AQA. This is not appropriate for the annual averaging time. Individual years of the five-year meteorological data should have been used for the annual NO₂ analysis. The annual NO₂ GLCmax should be the maximum predicted concentration over five years of meteorological data. Using information provided by the applicant, ADMT supplemented the annual NO₂ GLCmax using the maximum predicted concentrations over five years of meteorological data from the modeling output.

Background concentrations for NO₂ were obtained from the EPA AIRS monitor 350151005 located at 2811 Holland St, Carlsbad, Eddy County, New Mexico. The applicant calculated a three-year average (2022-2024) of the 98th percentile of the annual distribution of the daily maximum 1-hr concentrations for the 1-hr value. The annual mean concentration from the most recent complete year (2024) was used for the annual value. The use of this monitor is reasonable based on a comparison of county-wide emissions, population, and a quantitative review of emissions sources in the surrounding area of the monitor site relative to the project site.

A background concentration for PM₁₀ was obtained from the EPA AIRS monitor 480290060 at 401 South Frio St, San Antonio, Bexar County. The high, second high 24-hr concentration from 2022-2024 was used for the 24-hr value. The use of this monitor is reasonable based on a comparison of county-wide emissions, population, and a

quantitative review of emissions 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 MERPs⁶. Using data associated with the 500 tpy Terry County source, the applicant estimated 24-hr and annual secondary PM_{2.5} concentrations of 0.0210 µg/m³ and 0.0006 µg/m³, respectively. When these estimates are added to the GLCmax listed in Table 4 above, the results are less than the NAAQS.

D. Increment Analysis

The De Minimis analysis modeling results indicate that 24-hr and annual PM_{2.5}, 24-hr and annual PM₁₀, and annual NO₂ exceed the respective de minimis concentrations and require a PSD increment analysis.

Table 5. Results for PSD Increment Analysis

Pollutant	Averaging Time	GLCmax (µg/m ³)	Increment (µg/m ³)
PM ₁₀	24-hr	8.8	30
PM ₁₀	Annual	1.8	17
PM _{2.5}	24-hr	8.9	9
PM _{2.5}	Annual	1.5	4
NO ₂	Annual	1.8	25

The GLCmax for the 24-hr PM_{2.5} and 24-hr PM₁₀ is the maximum high, second high predicted concentration across five years of meteorological data.

For annual NO₂, PM₁₀, and PM_{2.5}, the GLCmax represents the maximum predicted concentrations over five years of meteorological data.

The GLCmax for 24-hr and 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

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

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, Carlsbad Caverns National Park, is located approximately 128 kilometers (km) from the proposed site.

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 39 km from the proposed sources in the direction the Carlsbad Caverns National Park Class I area. The Carlsbad Caverns National Park Class I area is an additional 89 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 Carlsbad Caverns NP Class I area.

F. Minor Source NSR and Air Toxics Review

Table 6. Project-Related Modeling Results for State Property Line

Pollutant	Averaging Time	GLCmax (µg/m ³)	De Minimis (µg/m ³)
SO ₂	1-hr	0.6	20.42

Table 7. Modeling Results for Minor NSR De Minimis

Pollutant	Averaging Time	GLCmax (µg/m ³)	De Minimis (µg/m ³)
SO ₂	1-hr	0.6	7.8

The GLCmax are the maximum predicted concentrations associated with one year of meteorological data.

ADMT could not verify the GLCmax for the 1-hr SO₂ De Minimis analysis. Additionally, the emission rates modeled in the 1-hr SO₂ De Minimis analysis are not consistent with what was reported in the EMEW. Using information provided by the applicant, ADMT supplemented the 1-hr SO₂ GLCmax using the modeling output for the 1-hr SO₂ GLCmax in the State Property Line analysis.

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."⁷ 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.

⁷ <https://www.epa.gov/system/files/documents/2024-12/secondary-so2-naaqs-psd-memo-12-10-24.pdf>

To show compliance with the secondary 3-hr SO₂ NAAQS, the applicant relied on EPA's alternative demonstration approach summarized in a 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."⁸ 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 3-hr SO₂ standard.

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.

Table 8. Generic Modeling Results

Source ID	1-hr GLCmax (µg/m ³ per lb/hr)	8-hr GLCmax (µg/m ³ per lb/hr)	24-hr GLCmax (µg/m ³ per lb/hr)	Annual GLCmax (µg/m ³ per lb/hr)
EE_1_1	54.65	40.02	24.25	2.80
EE_1_2	55.78	40.68	23.48	2.84
EE_2_1	53.80	33.68	22.86	4.69
EE_2_2	53.83	34.88	23.76	4.82

Table 9. Minor NSR Site-Wide Modeling Results for Health Effects

Pollutant	CAS# ¹⁰	Averaging Time	GLCmax (µg/m ³)	GLCmax Location	GLCni ¹¹ (µg/m ³)	ESL ¹² (µg/m ³)
ammonia	7664-41-7	1-hr	157	W Property Line	157	180
formaldehyde	50-00-0	1-hr	2	183m W	2	15

The GLCmax and the GLCni 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.

G. Greenhouse Gases

⁸ <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>

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

¹⁰ Chemical Abstract Service Number

¹¹ Ground level non-industrial concentration

¹² Effects Screening Level

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

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. 181523, PSDTX1678, and GHGPSDTX266.