



Technical Package Cover Page

This file contains the following documents:

1. Summary of application (in plain language)
 - English
 - Alternative Language (Spanish)
 2. First notice (NORI-Notice of Receipt of Application and Intent to Obtain a Permit)
 - English
 - Alternative Language (Spanish)
 3. Second notice (NAPD-Notice of Preliminary Decision)
 - English
 - Alternative Language (Spanish)
 4. Application materials (**NOTE:** This application was declared Administratively Complete before June 1, 2024. Application materials are available for review at the Public Viewing Location provided in the NORI.)
 5. Draft permit
 6. Technical summary or fact sheet
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Portada de Paquete Técnico

Este archivo contiene los siguientes documentos:

1. Resumen de la solicitud (en lenguaje sencillo)
 - Inglés
 - Idioma alternativo (español)
2. Primer aviso (NORI, Aviso de Recepción de Solicitud e Intención de Obtener un Permiso)
 - Inglés
 - Idioma alternativo (español)
3. Segundo aviso (NAPD, Aviso de Decisión Preliminar)
 - Inglés
 - Idioma alternativo (español)
4. Materiales de la solicitud (**NOTA:** Esta solicitud se declaró administrativamente completa antes del 1 de junio de 2024. Los materiales de la solicitud están disponibles para revisión en la ubicación de consulta pública que se indica en el NORI.)
5. Proyecto de permiso
6. Resumen técnico u hoja de datos

Plain Language Summaries

English

Linde Inc. (CN600130645) proposes to operate the Nederland Facility RN111708863, a hydrogen and industrial gas production facility. The facility will be located at 6145 Highway 69 South, in Beaumont, Jefferson County, Texas 77705. This application proposes to discharge 2,500,000 gallons per day of process wastewater, utility wastewaters (non-contact cooling water and RO Reject), hydrostatic test water, commissioning flows and stormwater associated with industrial activity.

The discharge of process wastewater via Outfall 001 is not subject to federal effluent limitation guidelines. Process wastewaters and first flush stormwater will be treated by settling of solids and biological treatment. Utility wastewaters will be treated by settling of solids, neutralization, and dechlorination where necessary.

Raw water will be sourced from the Lower Neches Valley Authority (LNVA) to supply the process water and cooling water for the facility (PWS No. 0360112). Water will be withdrawn via an intake structure on the LNVA Canal (which does not meet the definition of Waters of the United States) and will be treated onsite including disinfection and solids settling. Reverse osmosis will be used to further treat water used in the manufacturing process.

Process area stormwater collected from the beginning of a storm event that may have the potential to entrain contamination will be gravity drained to a system of collection sumps prior to pumping to an Oil Water Separator. Stormwater collection sumps will be monitored for high levels of contamination and can be redirected to the biological wastewater treatment system if needed.

Domestic sewage will be collected and routed to the City of Beaumont POTW, TPDES Permit No. WQ0010501020, for treatment and disposal.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN WATER QUALITY PERMIT

PROPOSED PERMIT NO. WQ0005439000

APPLICATION. Linde Inc., 1585 Sawdust Road, Suite 300, The Woodlands, Texas 77380, which owns a proposed industrial gas manufacturing facility, has applied to the Texas Commission on Environmental Quality (TCEQ) for proposed Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0005439000 (EPA I.D. No. TX0145106) to authorize the discharge of treated wastewater at a volume not to exceed an annual average flow of 1,670,000 gallons per day. The facility will be located at 6145 Highway 69 South, Beaumont, in Jefferson County, Texas 77705. The discharge route will be from the plant site via Outfall 001 piped to Neches River Tidal; and via Outfall 002 to a pond, thence to a drainage ditch, thence to Rhodair Gully, thence to Taylor Bayou Above Tidal. TCEQ received this application on September 8, 2023. The permit application will be available for viewing and copying at Marion & Ed Hughes Public Library, 2712 Nederland Avenue, Nederland, in Jefferson County, Texas, and Orange Public Library, 220 5th Street, Orange, in Orange County, Texas prior to the date this notice is published in the newspaper. 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 the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-94.036666,29.998055&level=18>

The application is subject to the goals and policies of the Texas Coastal Management Program and must be consistent with the applicable Coastal Management Program goals and policies.

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>. El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>.

ADDITIONAL NOTICE. TCEQ's Executive Director has determined the application is administratively complete and will conduct a technical review of the application. After technical review of the application is complete, the Executive Director may prepare a draft permit and will issue a preliminary decision on the application. **Notice of the Application and Preliminary Decision will be published and mailed to those who are on the county-wide mailing list and to those who are on the mailing list for this application. That notice will contain the deadline for submitting public comments.**

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting on this application. The purpose of a public meeting is to provide the opportunity to submit comments or to ask questions about the application. TCEQ

will hold a public meeting if the Executive Director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

OPPORTUNITY FOR A CONTESTED CASE HEARING. After the deadline for submitting public comments, the Executive Director will consider all timely comments and prepare a response to all relevant and material, or significant public comments. **Unless the application is directly referred for a contested case hearing, the response to comments, and the Executive Director's decision on the application, will be mailed to everyone who submitted public comments and to those persons who are on the mailing list for this application. If comments are received, the mailing will also provide instructions for requesting reconsideration of the Executive Director's decision and for requesting a contested case hearing.** A contested case hearing is a legal proceeding similar to a civil trial in state district court.

TO REQUEST A CONTESTED CASE HEARING, YOU MUST INCLUDE THE FOLLOWING ITEMS IN YOUR REQUEST: your name, address, phone number; applicant's name and proposed permit number; the location and distance of your property/activities relative to the proposed facility; a specific description of how you would be adversely affected by the facility in a way not common to the general public; a list of all disputed issues of fact that you submit during the comment period and, the statement "[I/we] request a contested case hearing." If the request for contested case hearing is filed on behalf of a group or association, the request must designate the group's representative for receiving future correspondence; identify by name and physical address an individual member of the group who would be adversely affected by the proposed facility or activity; provide the information discussed above regarding the affected member's location and distance from the facility or activity; explain how and why the member would be affected; and explain how the interests the group seeks to protect are relevant to the group's purpose.

Following the close of all applicable comment and request periods, the Executive Director will forward the application and any requests for reconsideration or for a contested case hearing to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

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. **If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed questions of fact and law relating to relevant and material water quality concerns submitted during the comment period.**

MAILING LIST. If you submit public comments, a request for a contested case hearing or a reconsideration of the Executive Director's decision, you will be added to the mailing list for this specific application to receive future public notices mailed by the Office of the Chief Clerk. In addition, you may request to be placed on: (1) the permanent mailing list for a specific applicant name and permit number; and/or (2) the mailing list for a specific county. If you wish to be placed on the permanent and/or the county mailing list, clearly specify which list(s) and send your request to TCEQ Office of the Chief Clerk at the address below.

INFORMATION AVAILABLE ONLINE. For details about the status of the application, visit the Commissioners' Integrated Database at www.tceq.texas.gov/goto/cid. Search the database using the permit number for this application, which is provided at the top of this notice.

AGENCY CONTACTS AND INFORMATION. Public comments and requests must be submitted either electronically at <http://www14.tceq.texas.gov/epic/eComment/>, 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 this permit application or 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.

Further information may also be obtained from Linde Inc. at the address stated above or by calling Ms. Heather McCormick, Environmental Manager, at 337-287-3355.

Issuance Date: October 25, 2023

Comisión de Calidad Ambiental del Estado de Texas



AVISO DE RECIBO DE LA SOLICITUD Y EL INTENTO DE OBTENER PERMISO PARA LA CALIDAD DEL AGUA

PERMISO PROPUESTO NO. WQ0005439000

SOLICITUD. Linde Inc., 1585 Sawdust Road, Suite 300, The Woodlands, Texas 77380, propietaria de una instalación de fabricación de gas industrial propuesta, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) el permiso propuesto para el Sistema de Eliminación de Descargas Contaminantes de Texas (TPDES). No. WQ0005439000 (EPA I.D. No. TX0145106) para autorizar la descarga de aguas residuales tratadas en un volumen que no exceda un flujo promedio anual de 1,670,000 galones por día. La instalación estará ubicada en 6145 Highway 69 South, Beaumont, en Jefferson Condado, Texas 77705. La ruta de descarga será desde el sitio de la planta a través del emisario 001 con tubería hasta Neches River Tidal; y a través del emisario 002 hasta un estanque, de allí a una zanja de drenaje, de allí a Rhodair Gully y de allí a Taylor Bayou Above Tidal. La TCEQ recibió esta solicitud el 8 de septiembre de 2023. La solicitud de permiso estará disponible para ver y copiar en la Biblioteca Pública Marion & Ed Hughes, 2712 Nederland Avenue, Nederland, en el Condado de Jefferson, Texas, y en la Biblioteca Pública de Orange, 220 5th Street, Orange, en el condado de Orange, Texas, antes de la fecha de publicación de este aviso en el periódico. 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 o aviso. Para conocer la ubicación exacta, consulte la aplicación. <https://gisweb.tceq.texas.gov/LocationMapper/?marker=-94.036666,29.998055&level=18>

El Director Ejecutivo de la TCEQ ha revisado esta medida para ver si está de acuerdo con los objetivos y las regulaciones del Programa de Administración Costero de Texas (CMP) de acuerdo con las regulaciones del Consejo Coordinador de la Costa (CCC) y ha determinado que la acción es conforme con las metas y regulaciones pertinentes del CMP.

AVISO ADICIONAL. El Director Ejecutivo de la TCEQ ha determinado que la solicitud es administrativamente completa y conducirá una revisión técnica de la solicitud. Después de completar la revisión técnica, el Director Ejecutivo puede preparar un borrador del permiso y emitirá una Decisión Preliminar sobre la solicitud. **El aviso de la solicitud y la decisión preliminar serán publicados y enviado a los que están en la lista de correo de las personas a lo largo del condado que desean recibir los avisos y los que están en la lista de correo que desean recibir**

avisos de esta solicitud. El aviso dará la fecha límite para someter comentarios públicos.

COMENTARIO PUBLICO / REUNION PUBLICA. Usted puede presentar **comentarios públicos o pedir una reunión pública sobre esta solicitud.** El propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO. Después del plazo para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios apropiados y preparará una respuesta a todo los comentarios públicos esenciales, pertinentes, o significativos. **A menos que la solicitud haya sido referida directamente a una audiencia administrativa de lo contencioso, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud serán enviados por correo a todos los que presentaron un comentario público y a las personas que están en la lista para recibir avisos sobre esta solicitud.** Si se reciben comentarios, el aviso también proveerá instrucciones para pedir una reconsideración de la decisión del Director Ejecutivo y para pedir una audiencia administrativa de lo contencioso. Una audiencia administrativa de lo contencioso es un procedimiento legal similar a un procedimiento legal civil en un tribunal de distrito del estado.

PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, USTED DEBE INCLUIR EN SU SOLICITUD LOS SIGUIENTES DATOS: su nombre, dirección, y número de teléfono; el nombre del solicitante y número del permiso; la ubicación y distancia de su propiedad/actividad con respecto a la instalación; una descripción específica de la forma cómo usted sería afectado adversamente por el sitio de una manera no común al público en general; una lista de todas las cuestiones de hecho en disputa que usted presente durante el período de comentarios; y la declaración "[Yo/nosotros] solicito/solicitamos una audiencia de caso impugnado". Si presenta la petición para una audiencia de caso impugnado de parte de un grupo o asociación, debe identificar una persona que representa al grupo para recibir correspondencia en el futuro; identificar el nombre y la dirección de un miembro del grupo que sería afectado adversamente por la planta o la actividad propuesta; proveer la información indicada anteriormente con respecto a la ubicación del miembro afectado y su distancia de la planta o actividad propuesta; explicar cómo y porqué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes al propósito del grupo.

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para

reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión. La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas de correos siguientes (1) la lista de correo permanente para recibir los avisos de el solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

CONTACTOS E INFORMACIÓN A LA AGENCIA. Todos los comentarios públicos y solicitudes deben ser presentados electrónicamente vía <http://www14.tceq.texas.gov/epic/eComment/> o por escrito dirigidos a la Comisión de Texas de Calidad Ambiental, Oficial de la Secretaría (Office of Chief Clerk), MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia. Para obtener más información acerca de esta solicitud de permiso o el proceso de permisos, llame al programa de educación pública de la TCEQ, gratis, al 1-800-687-4040. Si desea información en Español, puede llamar al 1-800-687-4040.

También se puede obtener más información de Linde Inc. en la dirección indicada anteriormente o llamando a la Sra. Heather McCormick, Gerente Ambiental, al 337-287-3355.

Fecha de emisión 25 de octubre de 2023

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



COMBINED

NOTICE OF RECEIPT OF APPLICATION AND INTENT TO OBTAIN A WATER QUALITY PERMIT (NORI)

AND

NOTICE OF APPLICATION AND PRELIMINARY DECISION FOR TPDES PERMIT FOR INDUSTRIAL WASTEWATER

NEW

Permit No. WQ0005439000

APPLICATION AND PRELIMINARY DECISION. Linde Inc., 1585 Sawdust Road, Suite 300, The Woodlands, Texas 77380, which proposes to operate the Nederland Facility, a hydrogen and industrial gas manufacturing facility, has applied to the Texas Commission on Environmental Quality (TCEQ) for a new permit, Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0005439000, to authorize the discharge of process wastewater, utility wastewater, **passivation water, system flush water,** and stormwater at a daily average flow not to exceed **2,420,000 gallons per day** via Outfall 001; **stormwater, hydrostatic test water, passivation water, and system flush water on an intermittent and flow-variable basis via Outfalls 002, 003, 004, 005, 006, 007, 008, and 009 during their respective interim phases; and stormwater, hydrostatic wastewater, passivation water, system flush water, and firewater on an intermittent and flow-variable basis via Outfalls 002, 003, 004, 005, 006, 007, 008, and 009 during their respective final phases.** The TCEQ received this application on September 8, 2023.

This combined notice is being issued because the proposed daily average flow for Outfall 001 has changed to 2,420,000 gallons per day. Additionally, the original NORI did not include the discharges of passivation water and system flush water via Outfall 001; stormwater, hydrostatic test water, passivation water, and system flush water on an intermittent and flow-variable basis via Outfalls 002, 003, 004, 005, 006, 007, 008, and 009 during their respective interim phases; and stormwater, hydrostatic wastewater, passivation water, system flush water, and firewater on an intermittent and flow-variable basis via Outfalls 002, 003, 004, 005, 006, 007, 008, and 009 during their respective final phases.

The facility is located at 6145 Highway 69 South, south of the City of Beaumont, Jefferson County, Texas 77705. This link to an electronic map of the site or facility's general location is provided as a public courtesy and is not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-94.036666,29.998055&level=18>

The effluent is discharged via Outfall 001 and pipe directly to Neches River Tidal in Segment 0601 of the Neches River Basin; and via Outfalls 002, 003, 004, 005, 006, 007, 008, and 009 to a

drainage ditch (not a water of the state), thence to a pond, thence to a drainage ditch, thence to Rhodair Gully, thence to Taylor Bayou Above Tidal in Segment 0701 of the Neches-Trinity Coastal Basin. The unclassified receiving water uses are limited aquatic life use for the pond, minimal aquatic life use for the drainage ditch and Rhodair Gully (upstream of Highway 69), and intermediate aquatic life use for Rhodair Gully (downstream of Highway 69). The designated uses for Segment No. 0601 are primary contact recreation and intermediate aquatic life use. The designated uses for Segment No. 0701 are primary contact recreation and intermediate aquatic life use.

In accordance with 30 Texas Administrative Code §307.5 and TCEQ's *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010), an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Neches River Tidal, Rhodair Gully (downstream of Hwy 69), and Taylor Bayou Above Tidal, which have been identified as having intermediate aquatic life uses. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

The TCEQ Executive Director reviewed this action for consistency with the Texas Coastal Management Program (CMP) goals and policies in accordance with the regulations of the General Land Office and has determined that the action is consistent with the applicable CMP goals and policies.

The TCEQ Executive Director has completed the technical review of the application and prepared a draft permit. The draft permit, if approved, would establish the conditions under which the facility must operate. The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The permit application, Executive Director's preliminary decision, and draft permit are available for viewing and copying at the Marion & Ed Hughes Public Library, 2712 Nederland Avenue, Nederland, in Jefferson County, Texas, and Orange Public Library, 220 5th Street, Orange, in Orange County, Texas.

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>. El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notices>.

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 written or oral comment or to ask questions about the application. Generally, the TCEQ will hold a public meeting if the Executive Director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

OPPORTUNITY FOR A CONTESTED CASE HEARING. After the deadline for public comments, the Executive Director will consider the comments and prepare a response to all relevant and material, or significant public comments. **The response to comments, along with the Executive Director's decision on the application, will be mailed to everyone who submitted public comments or who requested to be on a mailing list for this**

application. If comments are received, the mailing will also provide instructions for requesting a contested case hearing or reconsideration of the Executive Director's decision. A contested case hearing is a legal proceeding similar to a civil trial in a state district court.

TO REQUEST A CONTESTED CASE HEARING, YOU MUST INCLUDE THE FOLLOWING ITEMS IN YOUR REQUEST: your name, address, phone number; applicant's name and proposed permit number; the location and distance of your property/activities relative to the proposed facility; a specific description of how you would be adversely affected by the facility in a way not common to the general public; a list of all disputed issues of fact that you submit during the comment period; and the statement "[I/we] request a contested case hearing." If the request for contested case hearing is filed on behalf of a group or association, the request must designate the group's representative for receiving future correspondence; identify by name and physical address an individual member of the group who would be adversely affected by the proposed facility or activity; provide the information discussed above regarding the affected member's location and distance from the facility or activity; explain how and why the member would be affected; and explain how the interests the group seeks to protect are relevant to the group's purpose.

Following the close of all applicable comment and request periods, the Executive Director will forward the application and any requests for reconsideration or for a contested case hearing to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

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. **If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed questions of fact and law relating to relevant and material water quality concerns submitted during the comment period.**

EXECUTIVE DIRECTOR ACTION. The Executive Director may issue final approval of the application unless a timely contested case hearing request or a timely request for reconsideration is filed. If a timely hearing request or request for reconsideration is filed, the Executive Director will not issue final approval of the permit and will forward the application and requests to the TCEQ Commissioners for their consideration at a scheduled Commission meeting.

MAILING LIST. If you submit public comments, a request for a contested case hearing or a reconsideration of the Executive Director's decision, you will be added to the mailing list for this specific application to receive future public notices mailed by the Office of the Chief Clerk. In addition, you may request to be added to: (1) the permanent list for a specific applicant name and permit number; and (2) the mailing list for a specific county. If you wish to be placed on the permanent and the county mailing list, clearly specify which list(s) and send your request to TCEQ Office of the Chief Clerk at the address below.

All written public comments and public meeting requests must be submitted to the Office of the Chief Clerk, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 or electronically at <https://www.tceq.texas.gov/goto/comment> within 30 days from the date of newspaper publication of this notice.

INFORMATION AVAILABLE ONLINE. For details about the status of the application, visit the Commissioners' Integrated Database at <https://www.tceq.texas.gov/goto/cid/>. Search the database using the permit number for this application, which is provided at the top of this notice.

AGENCY CONTACTS AND INFORMATION. Public comments and requests must be submitted either electronically at <https://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 this permit application or the permitting process, please call the TCEQ Public Education Program, toll free, at 1-800-687-4040 or visit their website at <https://www.tceq.texas.gov/agency/decisions/participation/permitting-participation>. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from Linde Inc. at the address stated above or by calling Ms. Heather McCormick, Environmental Manager, at 337-287-3355.

Issued: September 22, 2025

Comisión De Calidad Ambiental Del Estado De Texas



AVISO COMBINADO DE RECIBO DE LA SOLICITUD Y EL INTENTO DE OBTENER PERMISO PARA LA CALIDAD DEL AGUA PERMISO

Y

AVISO DE LA SOLICITUD Y DECISIÓN PRELIMINAR PARA EL PERMISO DEL SISTEMA DE ELIMINACION DE DESCARGAS DE CONTAMINANTES DE TEXAS (TPDES) PARA AGUAS RESIDUALES INDUSTRIALES NUEVO

PERMISO NO. WQ0005439000

SOLICITUD Y DECISIÓN PRELIMINAR. Linde Inc., 1585 Sawdust Road, Suite 300, The Woodlands, Texas 77380, que propone operar la Instalación de Nederland, una instalación de fabricación de hidrógeno y gases industriales, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) un nuevo permiso, el Permiso del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) No. WQ0005439000, para autorizar la descarga de aguas residuales de proceso, aguas residuales de servicios públicos, agua de pasivación, agua de lavado de sistemas y aguas pluviales con un flujo promedio diario que no exceda los 2,420,000 galones por día a través del Desagüe 001; aguas pluviales, agua de prueba hidrostática, agua de pasivación y agua de lavado de sistemas de forma intermitente y con flujo variable a través de los Desagües 002, 003, 004, 005, 006, 007, 008 y 009 durante sus respectivas fases intermedias; y aguas pluviales, aguas residuales hidrostáticas, agua de pasivación, agua de lavado de sistemas y agua contra incendios de forma intermitente y con flujo variable a través de los Desagües 002, 003, 004, 005, 006, 007, 008 y 009 durante sus respectivas fases finales. La TCEQ recibió esta solicitud el 8 de septiembre de 2023.

Este aviso combinado se emite porque el flujo promedio diario propuesto para el Desagüe 001 ha cambiado a 2,420,000 galones por día. Además, el NORI original no incluía las descargas de agua de pasivación y agua de lavado de sistemas a través del Desagüe 001; aguas pluviales, agua de prueba hidrostática, agua de pasivación y agua de lavado de sistemas de forma intermitente y con flujo variable a través de los Desagües 002, 003, 004, 005, 006, 007, 008 y 009 durante sus respectivas fases intermedias; y aguas pluviales, aguas residuales hidrostáticas, agua de pasivación, agua de lavado de sistemas y agua contra incendios de forma intermitente y con flujo variable a través de los Desagües 002, 003, 004, 005, 006, 007, 008 y 009 durante sus respectivas fases finales.

La planta está ubicada en 6145 Highway 69 South, al sur de la ciudad de Beaumont, condado de Jefferson, Texas 77705. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación se proporciona como cortesía pública y no forma parte de la solicitud ni del aviso. Para la ubicación exacta, consulte la solicitud.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-94.036666,29.998055&level=18>

El efluente tratado es descargado al Desagüe 001 y una tubería directamente al río Neches (zona de marea) en el Segmento 0601 de la cuenca del río Neches; y a través de los Desagües 002, 003, 004, 005, 006, 007, 008 y 009 a una zanja de drenaje (que no es un agua del estado), de allí a un estanque, de allí a una zanja de drenaje, de allí a Rhodair Gully, de allí a Taylor Bayou Above Tidal en el Segmento 0701 de la cuenca costera Neches-Trinity. Los usos no clasificados de las aguas receptoras son el uso de vida acuática limitada para el estanque, el uso de vida acuática mínima para la zanja de drenaje y Rhodair Gully (aguas arriba de la autopista 69), y el uso de vida acuática intermedia para Rhodair Gully (aguas abajo de la autopista 69). Los usos designados para el Segmento No. 0601 son la recreación de contacto primario y el uso de vida acuática intermedia. Los usos designados para el Segmento No. 0701 son la recreación de contacto primario y el uso de vida acuática intermedia.

De acuerdo con la 30 TAC §307.5 y los procedimientos de implementación de la TCEQ (junio de 2010) para las Normas de Calidad de Aguas Superficiales en Texas, fue realizada una revisión de la antidegradación de las aguas recibidas. Una revisión de antidegradación del Nivel 1 ha determinado preliminarmente que los usos de la calidad del agua existente no serán perjudicados por la acción de este permiso. Se mantendrá un criterio narrativo y numérico para proteger los usos existentes. Una revisión del Nivel 2 ha determinado preliminarmente que no se espera ninguna degradación significativa en el río Neches (zona de marea), Rhodair Gully (aguas abajo de la autopista 69) y Taylor Bayou Above Tidal, el cual se ha identificado que tiene intermedios usos en la vida acuática. Los usos existentes serán mantenidos y protegidos. La determinación preliminar puede ser reexaminada y puede ser modificada, si se recibe alguna información nueva.

El Director Ejecutivo de la TCEQ ha revisado esta medida para ver si está de acuerdo con los objetivos y las regulaciones del Programa de Administración Costero de Texas (CMP) de acuerdo con las regulaciones del Consejo Coordinador de la Costa (CCC) y ha determinado que la acción es conforme con las metas y regulaciones pertinentes de el CMP.

El Director Ejecutivo de la TCEQ ha completado la revisión técnica de la solicitud y ha preparado un borrador del permiso. El borrador del permiso, si es aprobado, establecería las condiciones bajo las cuales la instalación debe operar. El Director Ejecutivo ha tomado una decisión preliminar que si este permiso es emitido, cumple con todos los requisitos normativos y legales. La solicitud del permiso, la decisión preliminar del Director Ejecutivo y el borrador del permiso están disponibles para leer y copiar en la Biblioteca Pública Marion & Ed Hughes, 2712 Nederland Avenue, Nederland, en el condado de Jefferson, Texas, y en la Biblioteca Pública de Orange, 220 5th Street, Orange, en el condado de Orange, Texas.

AVISO DE IDIOMA ALTERNATIVO. El aviso de idioma alternativo en español está disponible en <https://www.tceq.texas.gov/permitting/wastewater/plain-language-summaries-and-public-notice>.

COMENTARIO PUBLICO / REUNION PUBLICA. Usted puede presentar comentarios públicos o pedir una reunión pública sobre esta solicitud. El propósito de una reunión pública es dar la oportunidad de presentar comentarios o hacer preguntas acerca de la solicitud. La TCEQ realiza una reunión pública si el Director Ejecutivo determina que hay un grado de interés público suficiente en la solicitud o si un legislador local lo pide. Una reunión pública no es una audiencia administrativa de lo contencioso.

OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO CONTENCIOSO. Después del plazo para presentar comentarios públicos, el Director Ejecutivo considerará todos los comentarios apropiados y preparará una respuesta a todos los comentarios públicos esenciales, pertinentes, o significativos. **A menos que la solicitud haya sido referida directamente a una audiencia administrativa de lo contencioso, la respuesta a los comentarios y la decisión del Director Ejecutivo sobre la solicitud serán enviados por correo a todos los que presentaron un comentario público y a las personas que están en la lista para recibir avisos sobre esta solicitud.** Si se reciben comentarios, el aviso también proveerá instrucciones para pedir una reconsideración de la decisión del Director Ejecutivo y para pedir **una audiencia administrativa de lo contencioso.** Una audiencia administrativa de lo contencioso es un procedimiento legal similar a un procedimiento legal civil en un tribunal de distrito del estado.

PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, USTED DEBE INCLUIR EN SU SOLICITUD LOS SIGUIENTES DATOS: su nombre, dirección, y número de teléfono; el nombre del solicitante y número del permiso; la ubicación y distancia de su propiedad/actividad con respecto a la instalación; una descripción específica de la forma cómo usted sería afectado adversamente por el sitio de una manera no común al público en general; una lista de todas las cuestiones de hecho en disputa que usted presente durante el período de comentarios; y la declaración "[Yo/nosotros] solicito/solicitamos una audiencia de caso impugnado". Si presenta la petición para una audiencia de caso impugnado de parte de un grupo o asociación, debe identificar una persona que representa al grupo para recibir correspondencia en el futuro; identificar el nombre y la dirección de un miembro del grupo que sería afectado adversamente por la planta o la actividad propuesta; proveer la información indicada anteriormente con respecto a la ubicación del miembro afectado y su distancia de la planta o actividad propuesta; explicar cómo y porqué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes al propósito del grupo.

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión. La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia

estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.

ACCIÓN DEL DIRECTOR EJECUTIVO. El Director Ejecutivo puede emitir una aprobación final de la solicitud a menos que exista un pedido antes del plazo de vencimiento de una audiencia administrativa de lo contencioso o se ha presentado un pedido de reconsideración. Si un pedido ha llegado antes del plazo de vencimiento de la audiencia o el pedido de reconsideración ha sido presentado, el Director Ejecutivo no emitirá una aprobación final sobre el permiso y enviará la solicitud y el pedido a los Comisionados de la TCEQ para consideración en una reunión programada de la Comisión.

LISTA DE CORREO. Si somete comentarios públicos, un pedido para una audiencia administrativa de lo contencioso o una reconsideración de la decisión del Director Ejecutivo, la Oficina del Secretario Principal enviará por correo los avisos públicos en relación con la solicitud. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas de correos siguientes (1) la lista de correo permanente para recibir los avisos de el solicitante indicado por nombre y número del permiso específico y/o (2) la lista de correo de todas las solicitudes en un condado específico. Si desea que se agregue su nombre en una de las listas designe cual lista(s) y envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

Todos los comentarios escritos del público y los pedidos una reunión deben ser presentados durante los 30 días después de la publicación del aviso a la Oficina del Secretario Principal, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 or por el internet a <https://www.tceq.texas.gov/goto/comment>. Tenga en cuenta que cualquier información personal que usted proporcione, incluyendo su nombre, número de teléfono, dirección de correo electrónico y dirección física pasarán a formar parte del registro público de la Agencia.

CONTACTOS E INFORMACIÓN DE LA AGENCIA. Los comentarios y solicitudes públicas deben enviarse electrónicamente a <https://www14.tceq.texas.gov/epic/eComment/>, o por escrito a Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Cualquier información personal que envíe a la TCEQ pasará a formar parte del registro de la agencia; esto incluye las direcciones de correo electrónico. Para obtener más información sobre esta solicitud de permiso o el proceso de permisos, llame al Programa de Educación Pública de la TCEQ, sin cargo, al 1-800-687-4040 o visite su sitio web en www.tceq.texas.gov/goto/pep. Si desea información en español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional del Linde Inc. a la dirección indicada arriba o llamando a Sra. Heather McCormick, Gerente de Medio Ambiente, al 337-287-3355.

Fecha de emisión: September 22, 2025



TEXAS COMMISSION ON ENVIRONMENTAL
QUALITY

P.O. Box 13087
Austin, Texas 78711-3087

PERMIT TO DISCHARGE WASTES
under provisions of
Section 402 of the Clean Water Act
and Chapter 26 of the Texas Water Code

TPDES PERMIT NO.
WQ0005439000
*[For TCEQ office use only -
EPA I.D. No. TX0145106]*

Linde Inc.

whose mailing address is

1585 Sawdust Road, Suite 300
The Woodlands, Texas 77380

is authorized to treat and discharge wastes from the Nederland Facility, a hydrogen and industrial gas manufacturing facility (SIC 2813)

located at 6145 Highway 69 South, south of the City of Beaumont, Jefferson County, Texas 77705

Outfall 001 and pipe directly to Neches River Tidal in Segment 0601 of the Neches River Basin; and via Outfalls 002, 003, 004, 005, 006, 007, 008, and 009 to a drainage ditch (not a water of the state), thence to a pond, thence to a drainage ditch, thence to Rhodair Gully, thence to Taylor Bayou Above Tidal in Segment 0701 of the Neches-Trinity Coastal Basin

only according to effluent limitations, monitoring requirements, and other conditions set forth in this permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ), the laws of the State of Texas, and other orders of the TCEQ. The issuance of this permit does not grant to the permittee the right to use private or public property for conveyance of wastewater along the discharge route described in this permit. This includes, but is not limited to, property belonging to any individual, partnership, corporation, or other entity. Neither does this permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This permit shall expire at midnight, five years from the date of permit issuance.

ISSUED DATE:

For the Commission

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 001 (Phase 1)

1. During the period beginning upon the date of facility passivation start-up ¹ and lasting through the date of facility production start-up ², the permittee is authorized to discharge utility wastewater ³, stormwater ⁴, passivation water, and system flush water subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 1.67 million gallons per day (MGD). The daily maximum flow shall not exceed 2.18 MGD.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	1.67 MGD	2.18 MGD	N/A	1/day ⁵	Estimate
Total Suspended Solids	N/A	Report	N/A	1/week ⁵	Grab
Chemical Oxygen Demand	N/A	200	200	1/week ⁵	Grab
Oil and Grease	N/A	15	15	1/week ⁵	Grab

¹ The facility status milestone *facility activation* is defined as commencement of activities at the facility that generate wastewaters not authorized and regulated by the Construction General Permit (TXR150000) and are discharged via this outfall. See Other Requirement No. 7.

² The facility status milestone *facility production start-up* is defined as the commencement of activities at the facility that results in the discharge of process wastewater via Outfall 001. See Other Requirement No. 7.

³ See Other Requirements No. 3.B., 3.C., and 3.D.

⁴ See Other Requirement No. 3.E.

⁵ When discharge occurs.

2. The pH must not be less than 6.0 standard units nor greater than 9.0 standard units and must be monitored once per day, by grab sample, when discharge occurs.
3. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples must be taken at the following location: Outfall 001, via a pipeline at the facility boundary that discharges via a diffuser directly to the Neches River Tidal. Sampling shall be conducted at the export pit prior to entering the discharge pipeline.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 001 (Phase 2)

1. During the period beginning upon the date of facility production start-up ¹ and lasting through the date of permit expiration, the permittee is authorized to discharge process wastewater ², utility wastewater ³, passivation water, system flush water, and stormwater ⁴ subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 2.42 million gallons per day (MGD). The daily maximum flow shall not exceed 4.18 MGD.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average Lbs/day	Daily Maximum Lbs/day	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	2.42 MGD	4.18 MGD	N/A	Continuous	Meter
Chemical Oxygen Demand	2,134	4,110	362	1/week	Composite
Total Suspended Solids	451	1,280	97	1/week	Composite
Oil and Grease	223	294	31	1/week	Grab
Carbonaceous Biochemical Oxygen Demand (5-day) ⁵	Report	Report	N/A	1/week ⁵	Grab
Ammonia (as Nitrogen) ⁵	Report	Report	N/A	1/week ⁵	Grab
Temperature ⁵	Report (°F)	Report (°F)	N/A	1/week ⁵	Instantaneous

¹ The facility status milestone *facility production start-up* is defined as the commencement of activities at the facility that results in the discharge of process wastewater via Outfall 001. See Other Requirement No. 7.

² See Other Requirement No. 3.A.

³ See Other Requirement Nos. 3.B., 3.C., and 3.D.

⁴ See Other Requirement No. 3.E.

⁵ Effective beginning upon date of outfall activation and lasting until 58 months after date of permit issuance.

2. The pH must not be less than 6.0 standard units nor greater than 9.0 standard units and must be monitored once per day by grab sample.
3. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples must be taken at the following location: Outfall 001, via a pipeline at the facility boundary that discharges via a diffuser directly to the Neches River Tidal. Sampling shall be conducted at the export pit prior to entering the discharge pipeline.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 101 (Phase 2a)

1. During the period beginning upon the date of facility production start-up ¹ and lasting through the date of permit expiration, the permittee is authorized to discharge process wastewater ², water treatment wastes ³, passivation water, system flush water, and stormwater ⁴ subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 0.535 million gallons per day (MGD). The daily maximum flow shall not exceed 1.37 MGD.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average Lbs/day	Daily Maximum Lbs/day	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	0.535 MGD	1.37 MGD	N/A	Continuous	Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	99.7	255	90	1/week	Composite
Ammonia (as Nitrogen)	16.6	43	15	1/week	Composite

¹ The facility status milestone *facility production start-up* is defined as the commencement of activities at the facility that results in the discharge of process wastewater via Outfall 001 and oxygen demanding constituents compliant with dissolved oxygen model approved by TCEQ staff prior to the issuance date of this permit. See Other Requirement No. 7.C.

² See Other Requirement No. 3.A.

³ See Other Requirement No. 3.C.

⁴ See Other Requirement No. 3.E.

2. Effluent monitoring samples must be taken at the following location: Outfall 101, prior to entering the export pit that discharges to a pipeline conveying the discharge to a diffuser directly to the Neches River Tidal. Sampling shall be conducted at the export pit prior to entering the discharge pipeline.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTSOutfall Number 101 (Phase 2b)

1. During the period effective beginning upon the date of facility production start-up and date of approval of modeling confirmation via 'Monte Carlo' probabilistic statistical analysis ¹ and lasting through the date of permit expiration, the permittee is authorized to discharge process wastewater ², water treatment wastes ³, passivation water, system flush water, and stormwater ⁴ subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 0.535 million gallons per day (MGD). The daily maximum flow shall not exceed 1.37 MGD.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average lbs/day	Daily Maximum lbs/day	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	0.535 MGD	1.37 MGD	N/A	Continuous	Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	129.6	332	120	1/week	Composite
Ammonia (as Nitrogen)	21.6	55	20	1/week	Composite

¹ The facility status milestone *facility production start-up and date of approval of modeling confirmation* is defined as the commencement of activities at the facility that results in the discharge of process wastewater via Outfall 001 and oxygen demanding constituents compliant with dissolved oxygen model approved by TCEQ staff subsequent to the issuance date of this permit. See Other Requirement No. 7.D.

² See Other Requirement No. 3.A.

³ See Other Requirement No. 3.C.

⁴ See Other Requirement No. 3.E.

2. The pH must not be less than 6.0 standard units nor greater than 9.0 standard units and must be monitored once per day by grab sample.
3. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples must be taken at the following location: Outfall 101, prior to entering the export pit that discharges to a pipeline conveying the discharge to a diffuser directly to the Neches River Tidal. Sampling shall be conducted at the export pit prior to entering the discharge pipeline.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Outfall Numbers 002, 003, 004, 005, 006, 007, 008, and 009 (Interim)

- During the period beginning upon the date of facility activation ¹ and lasting through the date of facility production start-up ², the permittee is authorized to discharge stormwater ³, hydrostatic test water ⁴, passivation water, and system flush water subject to the following effluent limitations:

Volume: Intermittent and Flow-Variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report (MGD)	Report (MGD)	N/A	1/day ⁵	Estimate
Chemical Oxygen Demand	N/A	200	200	1/week ⁵	Grab
Oil and Grease	N/A	15	20	1/week ⁵	Grab

¹ The facility status milestone *facility activation* is defined as commencement of activities at the facility that generate wastewaters not authorized and regulated by the Construction General Permit (TXR150000) and are discharged via this outfall. See Other Requirement No. 7.

² The facility status milestone *facility production start-up* is defined as the commencement of activities at the facility that results in the discharge of process wastewater via Outfall 001. See Other Requirement No. 7.

³ See Other Requirement No. 3.E.

⁴ See Other Requirement No. 3.D.

⁵ When discharge occurs.

- The pH must not be less than 6.0 standard units nor greater than 9.0 standard units and must be monitored once per day, by grab sample, when discharge occurs.
- There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
- Effluent monitoring samples must be taken at the following locations:
 - Outfall 002 at the stormwater collection ditch along the south facility boundary, representative samples may be also collected at Outfall 009;
 - Outfall 003 along the facility boundary south of Outfall 002, representative samples may also be collected at Outfall 007;
 - Outfall 004 along the facility boundary south of Outfall 003, representative samples may also be collected at Outfall 005;
 - Outfall 005 along the facility boundary south of Outfall 004;
 - Outfall 006 along the facility boundary south of Outfall 005;
 - Outfall 007 along the facility boundary south of Outfall 006;
 - Outfall 008 along the facility boundary south of Outfall 007, representative samples may also be collected at Outfall 009;
 - Outfall 009 along the facility boundary south of Outfall 008.

1. During the period beginning upon the date of facility production start-up ¹ and lasting through the date of permit expiration, the permittee is authorized to discharge stormwater ², hydrostatic wastewater ³, passivation water, system flush water, and firewater subject to the following effluent limitations:

Volume: Intermittent and Flow-Variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Measurement Frequency	Daily Maximum Sample Type
Flow	Report (MGD)	Report (MGD)	N/A	1/day ⁴	Estimate
Chemical Oxygen Demand	N/A	200	200	1/week ⁴	Grab
Oil and Grease	N/A	15	20	1/week ⁴	Grab

¹ The facility status milestone *facility production start-up* is defined as the commencement of activities at the facility that results in the discharge of process wastewater via Outfall 001. See Other Requirement No. 7.

² See Other Requirement No. 3.E.

³ See Other Requirement No. 3.D.

⁴ When discharge occurs.

2. The pH must not be less than 6.0 standard units nor greater than 9.0 standard units and must be monitored once per day, by grab sample, when discharge occurs.
3. There must be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples must be taken at the following locations:

Outfall 002 at the stormwater collection ditch along the south facility boundary, representative samples may be also collected at Outfall 009;
 Outfall 003 along the facility boundary south of Outfall 002, representative samples may also be collected at Outfall 007;
 Outfall 004 along the facility boundary south of Outfall 003, representative samples may also be collected at Outfall 005;
 Outfall 005 along the facility boundary south of Outfall 004;
 Outfall 006 along the facility boundary south of Outfall 005;
 Outfall 007 along the facility boundary south of Outfall 006;
 Outfall 008 along the facility boundary south of Outfall 007, representative samples may also be collected at Outfall 009;
 Outfall 009 along the facility boundary south of Outfall 008.

DEFINITIONS AND STANDARD PERMIT CONDITIONS

As required by Title 30 Texas Administrative Code (TAC) Chapter 305, certain regulations appear as standard conditions in waste discharge permits. 30 TAC §§305.121 - 305.129 (relating to Permit Characteristics and Conditions) as promulgated under the Texas Water Code (TWC) §§5.103 and 5.105, and the Texas Health and Safety Code (THSC) §§361.017 and 361.024(a), establish the characteristics and standards for waste discharge permits, including sewage sludge, and those sections of 40 Code of Federal Regulations (CFR) Part 122 adopted by reference by the Commission. The following text includes these conditions and incorporates them into this permit. All definitions in Texas Water Code §26.001 and 30 TAC Chapter 305 shall apply to this permit and are incorporated by reference. Some specific definitions of words or phrases used in this permit are as follows:

1. Flow Measurements

- a. Annual average flow - the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder, and limited to major domestic wastewater discharge facilities with a one million gallons per day or greater permitted flow.
- b. Daily average flow - the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determination for intermittent discharges shall consist of a minimum of three flow determinations on days of discharge.
- c. Daily maximum flow - the highest total flow for any 24-hour period in a calendar month.
- d. Instantaneous flow - the measured flow during the minimum time required to interpret the flow measuring device.
- e. 2-hour peak flow (domestic wastewater treatment plants) - the maximum flow sustained for a two-hour period during the period of daily discharge. The average of multiple measurements of instantaneous maximum flow within a two-hour period may be used to calculate the 2-hour peak flow.
- f. Maximum 2-hour peak flow (domestic wastewater treatment plants) - the highest 2-hour peak flow for any 24-hour period in a calendar month.

2. Concentration Measurements

- a. Daily average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.
 - i. For domestic wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.
 - ii. For all other wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.
- b. 7-day average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar week, Sunday through Saturday.
- c. Daily maximum concentration - the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.
- d. Daily discharge - the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the "daily discharge" is calculated as the total

mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the “daily discharge” is calculated as the average measurement of the pollutant over the sampling day.

The “daily discharge” determination of concentration made using a composite sample shall be the concentration of the composite sample. When grab samples are used, the “daily discharge” determination of concentration shall be the arithmetic average (weighted by flow value) of all samples collected during that day.

- e. Bacteria concentration (Fecal coliform, *E. coli*, or Enterococci) – the number of colonies of bacteria per 100 milliliters effluent. The daily average bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the n th root of the product of all measurements made in a calendar month, where n equals the number of measurements made; or computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of bacteria equaling zero, a substitute value of one shall be made for input into either computation method. If specified, the 7-day average for bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.
- f. Daily average loading (lbs/day) - the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as $(\text{Flow, MGD} \times \text{Concentration, mg/L} \times 8.34)$.
- g. Daily maximum loading (lbs/day) - the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.

3. Sample Type

- a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC §319.9(a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC §319.9(c).
 - b. Grab sample - an individual sample collected in less than 15 minutes.
- 4. Treatment Facility (facility) - wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.
 - 5. The term “sewage sludge” is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids that have not been classified as hazardous waste separated from wastewater by unit processes.
 - 6. Bypass - the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

Monitoring results shall be provided at the intervals specified in the permit. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall conduct effluent sampling and reporting in accordance with 30 TAC §§319.4 - 319.12. Unless otherwise specified, effluent monitoring data shall be submitted each month, to the Enforcement Division (MC 224), by the 20th day of the following month for each discharge that is described by this permit whether or not a discharge is made for that month. Monitoring results must be submitted online using the NetDMR reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. Monitoring results must be signed and certified as required by Monitoring and Reporting Requirements No. 10.

As provided by state law, the permittee is subject to administrative, civil and criminal penalties, as applicable, for negligently or knowingly violating the Clean Water Act; TWC Chapters 26, 27, and 28; and THSC Chapter 361, including but not limited to knowingly making any false statement, representation, or certification on any report, record, or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, or falsifying, tampering with or knowingly rendering inaccurate any monitoring device or method required by this permit or violating any other requirement imposed by state or federal regulations.

2. Test Procedures

- a. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§319.11 - 319.12. Measurements, tests, and calculations shall be accurately accomplished in a representative manner.
- b. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

3. Records of Results

- a. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.
- b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, records of all data used to complete the application for this permit, and the certification required by 40 CFR §264.73(b)(9) shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, application or certification. This period shall be extended at the request of the Executive Director.
- c. Records of monitoring activities shall include the following:
 - i. date, time, and place of sample or measurement;
 - ii. identity of individual who collected the sample or made the measurement;
 - iii. date and time of analysis;
 - iv. identity of the individual and laboratory who performed the analysis;
 - v. the technique or method of analysis; and
 - vi. the results of the analysis or measurement and quality assurance/quality control records.

The period during which records are required to be kept shall be automatically extended to the date of the final disposition of any administrative or judicial enforcement action that may be instituted against the permittee.

4. Additional Monitoring by Permittee

If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit using approved analytical methods as specified above, all results of such monitoring shall be included in the calculation and reporting of the values submitted on the approved self-report form. Increased frequency of sampling shall be indicated on the self-report form.

5. Calibration of Instruments

All automatic flow measuring or recording devices and all totalizing meters for measuring flows shall be accurately calibrated by a trained person at plant start-up and as often thereafter as necessary to ensure accuracy, but not less often than annually unless authorized by the Executive Director for a longer period. Such person shall verify in writing that the device is operating properly and giving accurate results. Copies of the verification shall be retained at the facility site or shall be readily available for review by a TCEQ representative for a period of three years.

6. Compliance Schedule Reports

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date to the regional office and the Enforcement Division (MC 224).

7. Noncompliance Notification

- a. In accordance with 30 TAC §305.125(9) any noncompliance that may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Report of such information shall be provided orally or by facsimile transmission (FAX) to the regional office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the regional office and the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. For Publicly Owned Treatment Works (POTWs), effective September 1, 2020, the permittee must submit the written report for unauthorized discharges and unanticipated bypasses that exceed any effluent limit in the permit using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.
- b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:
 - i. unauthorized discharges as defined in Permit Condition 2(g).
 - ii. any unanticipated bypass that exceeds any effluent limitation in the permit.
 - iii. violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.
- c. In addition to the above, any effluent violation that deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the regional office and the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.
- d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Enforcement Division (MC 224) as promptly as possible. For effluent limitation violations, noncompliances shall be reported on the approved self-report form.

8. In accordance with the procedures described in 30 TAC §§35.301 - 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.

9. Changes in Discharges of Toxic Substances

All existing manufacturing, commercial, mining, and silvicultural permittees shall notify the regional office, orally or by facsimile transmission within 24 hours, and both the regional office and the Enforcement Division (MC 224) in writing within five (5) working days, after becoming aware of or having reason to believe:

- a. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. one hundred micrograms per liter (100 µg/L);
 - ii. two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - iii. five (5) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. the level established by the TCEQ.

- b. That any activity has occurred or will occur that would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. five hundred micrograms per liter (500 µg/L);
 - ii. one milligram per liter (1 mg/L) for antimony;
 - iii. ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. the level established by the TCEQ.

10. Signatories to Reports

All reports and other information requested by the Executive Director shall be signed by the person and in the manner required by 30 TAC §305.128 (relating to Signatories to Reports).

11. All POTWs must provide adequate notice to the Executive Director of the following:

- a. any new introduction of pollutants into the POTW from an indirect discharger that would be subject to CWA §301 or §306 if it were directly discharging those pollutants;
- b. any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit; and
- c. for the purpose of this paragraph, adequate notice shall include information on:
 - i. the quality and quantity of effluent introduced into the POTW; and
 - ii. any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

PERMIT CONDITIONS

1. General

- a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.
- b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:
 - i. violation of any terms or conditions of this permit;
 - ii. obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
 - iii. a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
- c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending, or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

2. Compliance

- a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.
- b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment,

revocation, or suspension, or for denial of a permit renewal application or an application for a permit for another facility.

- c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.
- e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.
- f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§305.62 and 305.66 and TWC §7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.
- h. In accordance with 30 TAC §305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility that does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.
- i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under Texas Water Code §§7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA §402, or any requirement imposed in a pretreatment program approved under the CWA §§402(a)(3) or 402(b)(8).

3. Inspections and Entry

- a. Inspection and entry shall be allowed as prescribed in the TWC Chapters 26, 27, and 28, and THSC Chapter 361.
- b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit, or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in TWC §7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.

4. Permit Amendment or Renewal

- a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:
 - i. the alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in accordance with 30 TAC §305.534 (relating to New Sources and New Dischargers); or
 - ii. the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9; or
 - iii. the alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
- b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.
- c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.
- d. Prior to accepting or generating wastes that are not described in the permit application or that would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.
- e. In accordance with the TWC §26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.
- f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA §307(a) for a toxic pollutant that is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition. The permittee shall comply with effluent standards or prohibitions established under CWA §307(a) for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. Permit Transfer

- a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.
- b. A permit may be transferred only according to the provisions of 30 TAC §305.64 (relating to Transfer of Permits) and 30 TAC §50.133 (relating to Executive Director Action on Application or WQMP update).

6. Relationship to Hazardous Waste Activities

This permit does not authorize any activity of hazardous waste storage, processing, or disposal that requires a permit or other authorization pursuant to the Texas Health and Safety Code.

7. Relationship to Water Rights

Disposal of treated effluent by any means other than discharge directly to water in the state must be specifically authorized in this permit and may require a permit pursuant to Texas Water Code Chapter 11.

8. Property Rights

A permit does not convey any property rights of any sort, or any exclusive privilege.

9. Permit Enforceability

The conditions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

10. Relationship to Permit Application

The application pursuant to which the permit has been issued is incorporated herein; provided, however, that in the event of a conflict between the provisions of this permit and the application, the provisions of the permit shall control.

11. Notice of Bankruptcy.

- a. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:
 - i. the permittee;
 - ii. an entity (as that term is defined in 11 USC, §101(15)) controlling the permittee or listing the permit or permittee as property of the estate; or
 - iii. an affiliate (as that term is defined in 11 USC, §101(2)) of the permittee.
- b. This notification must indicate:
 - i. the name of the permittee;
 - ii. the permit number(s);
 - iii. the bankruptcy court in which the petition for bankruptcy was filed; and
 - iv. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.
2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge use and disposal and 30 TAC §§319.21 - 319.29 concerning the discharge of certain hazardous metals.

3. Domestic wastewater treatment facilities shall comply with the following provisions:
 - a. The permittee shall notify the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.
 - b. The permittee shall submit a closure plan for review and approval to the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment or other treatment unit regulated by this permit.
4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, or retention of inadequately treated wastewater.
5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.
6. The permittee shall remit an annual water quality fee to the Commission as required by 30 TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under TWC §7.302(b)(6).
7. Documentation

For all written notifications to the Commission required of the permittee by this permit, the permittee shall keep and make available a copy of each such notification under the same conditions as self-monitoring data are required to be kept and made available. Except for information required for TPDES permit applications, effluent data, including effluent data in permits, draft permits and permit applications, and other information specified as not confidential in 30 TAC §1.5(d), any information submitted pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted in the manner prescribed in the application form or by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, information may be made available to the public without further notice. If the Commission or Executive Director agrees with the designation of confidentiality, the TCEQ will not provide the information for public inspection unless required by the Texas Attorney General or a court pursuant to an open records request. If the Executive Director does not agree with the designation of confidentiality, the person submitting the information will be notified.

8. Facilities that generate domestic wastewater shall comply with the following provisions; domestic wastewater treatment facilities at permitted industrial sites are excluded.
 - a. Whenever flow measurements for any domestic sewage treatment facility reach 75% of the permitted daily average or annual average flow for three consecutive months, the permittee must initiate engineering and financial planning for expansion or upgrading of the domestic wastewater treatment or collection facilities. Whenever the flow reaches 90% of the permitted daily average or annual average flow for three consecutive months, the permittee shall obtain necessary authorization from the Commission to commence construction of the necessary additional treatment or collection facilities. In the case of a domestic wastewater treatment facility that reaches 75% of the permitted daily average or annual average flow for three consecutive months, and the planned population to be served or the quantity of waste produced is not expected to exceed the design limitations of the treatment facility, the permittee shall submit an engineering report supporting this claim to the Executive Director of the Commission.

If in the judgment of the Executive Director the population to be served will not cause permit noncompliance, then the requirement of this section may be waived. To be effective, any waiver must be in writing and signed by the Director of the Enforcement Division (MC 219) of the Commission, and such waiver of these requirements will be reviewed upon expiration of the existing permit; however, any such waiver shall not be interpreted as condoning or excusing any violation of any permit parameter.

- b. The plans and specifications for domestic sewage collection and treatment works associated with any domestic permit must be approved by the Commission, and failure to secure approval before commencing construction of such works or making a discharge is a violation of this permit and each day is an additional violation until approval has been secured.
 - c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment, and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.
9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.
10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85%, unless otherwise authorized by this permit.
11. Facilities that generate industrial solid waste as defined in 30 TAC §335.1 shall comply with these provisions:
- a. Any solid waste, as defined in 30 TAC §335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.
 - b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.
 - c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC §335.8(b)(1), to the Corrective Action Section (MC 127) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.
 - d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Permitting and Remediation Support Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC §335.5.
 - e. The term "industrial solid waste management unit" means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well, container, drum, salt dome waste containment cavern, or any other structure vessel, appurtenance, or other improvement on land used to manage industrial solid waste.
 - f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC Chapter 335 and must include the following, as it pertains to wastewater treatment and discharge:
 - i. volume of waste and date(s) generated from treatment process;
 - ii. volume of waste disposed of on-site or shipped off-site;
 - iii. date(s) of disposal;

- iv. identity of hauler or transporter;
- v. location of disposal site; and
- vi. method of final disposal.

The above records shall be maintained on a monthly basis. The records shall be retained at the facility site, or shall be readily available for review by authorized representatives of the TCEQ for at least five years.

12. For industrial facilities to which the requirements of 30 TAC Chapter 335 do not apply, sludge and solid wastes, including tank cleaning and contaminated solids for disposal, shall be disposed of in accordance with THSC Code Chapter 361.

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OTHER REQUIREMENTS

1. The Executive Director reviewed this action for consistency with the goals and policies of the Texas Coastal Management Program (CMP) in accordance with the regulations of the General Land Office and determined that the action is consistent with the applicable CMP goals and policies.
2. Violations of daily maximum limitations for the following pollutants shall be reported orally or by facsimile to TCEQ Region 10 within 24 hours from the time the permittee becomes aware of the violation, followed by a written report within five working days to TCEQ Region 10 and Compliance Monitoring Team (MC 224): None.
3. **DEFINITIONS:**
 - A. **Process Wastewater** – as defined in 40 CFR §401.11(q), the term process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product.
 - B. **Utility Wastewater** – the term utility wastewater includes, but is not limited to, non-contact cooling water, cooling tower blowdown, boiler blowdown, steam condensate, air compressor condensate, air conditioner condensate, water treatment wastes, hydrostatic test water, passivation water, system flush water, and fire water.
 - C. **Water Treatment Wastes** - the term water treatment wastes includes, but is not limited to, cold lime water treatment wastes, demineralizer backwash, filter backwash, ion exchange water treatment system wastes, membrane regeneration wastes, and reverse osmosis reject water.
 - D. **Hydrostatic Test Water** – the term hydrostatic test water, as authorized for discharge via this permit is defined as hydrostatic test water from new vessels, or existing vessels that contain or previously contained or transferred raw or potable water, or existing vessels that previously contained only elemental gases (hydrogen, oxygen, nitrogen, etc.). Hydrostatic test water from a vessel that previously contained a raw material, intermediate product, finished product, by-product, or waste product is considered to be a process wastewater and must be handled accordingly.
 - E. **Stormwater** – the term stormwater includes the following: stormwater [as defined at 40 CFR §122.26(b)(13)]; stormwater discharge associated with industrial activity [as defined at 40 CFR §122.26(b)(14)]; and stormwater from construction activities.

Construction stormwater is authorized and regulated at Outfalls 001, 101, 002, 003, 004, 005, 006, 007, 008, and/or 009 under this permit only (TXG150000 does not apply to these discharges). Any other discharges of construction stormwater at this facility that do not discharge via Outfalls 001, 101, 002, 003, 004, 005, 006, 007, 008, and/or 009 would need to be authorized separately under TXG150000 or this permit would need to be amended accordingly to authorize those discharges. A specific point-source discharge of construction stormwater can only be authorized and regulated under either an individual permit or under TXG150000 but cannot be authorized and regulated under both.
4. This permit does not authorize the discharge of domestic wastewater. All domestic wastewater must be disposed of in an approved manner, such as routing to an approved on-site septic tank and drainfield system or to an authorized third party for treatment and disposal.

5. COOLING WATER INTAKE STRUCTURE REQUIREMENTS

The permittee shall provide written notification to the TCEQ Industrial Permits Team (MC 148) and Region 10 Office of any changes in the method by which the facility obtains water for cooling purposes. This notification must be submitted 30 days prior to any such change and must include a description of the planned changes. The TCEQ may, upon review of the notification, reopen the permit to include additional terms and conditions as necessary.

6. MIXING ZONE DEFENITIONS & DIFFUSER REQUIREMENTS – OUTFALL 001

A. Phase 1

The permittee shall maintain the diffuser at Outfall 001 to achieve a maximum dilution of 13.9 percent effluent at the edge of the ZID. The ZID is defined as a volume within a radius of 50 feet from the point of discharge.

The permittee shall maintain the diffuser at Outfall 001 to achieve a maximum dilution of 9.4 percent effluent at the edge of the chronic aquatic life mixing zone. The chronic aquatic life mixing zone is defined as a volume within a radius of 200 feet from the point of discharge.

The permittee shall maintain the diffuser at Outfall 001 to achieve a maximum dilution of 5.6 percent effluent at the edge of the human health mixing zone. The human health mixing zone is defined as a volume within a radius of 400 feet from the point of discharge.

B. Phase 2

The permittee shall maintain the diffuser at Outfall 001 to achieve a maximum dilution of 9.31 percent effluent at the edge of the ZID. The ZID is defined as a volume within a radius of 50 feet from the point of discharge.

The permittee shall maintain the diffuser at Outfall 001 to achieve a maximum dilution of 4.71 percent effluent at the edge of the chronic aquatic life mixing zone. The chronic aquatic life mixing zone is defined as a volume within a radius of 200 feet from the point of discharge.

The permittee shall maintain the diffuser at Outfall 001 to achieve a maximum dilution of 3.76 percent effluent at the edge of the human health mixing zone. The human health mixing zone is defined as a volume within a radius of 400 feet from the point of discharge.

7. Reporting requirements according to 30 TAC §§ 319.1-319.12 and any additional effluent reporting requirements contained in the permit are suspended from the effective date of the permit until plant startup or discharge or phase change, whichever occurs first, from the facility described by this permit. The permittee shall provide written notice to the TCEQ Applications Review and Processing Team (MC 148), Compliance Monitoring Team (MC 224), and Region 10 Office, at least forty-five days prior to plant startup or anticipated discharge, whichever occurs first, on Notification of Completion Form 20007.

The phases for the outfalls are defined as follows:

- A. Outfall 001 Phase 1 defined as the Commission Phase, no hydrogen production at the facility; this phase is active upon date of permit issuance.
- B. Outfall 001 Phase 2 defined as the Production Phase, active hydrogen production.

- C. Outfall 101 Phase 2a defined as the Production Phase Interim Requirements, active hydrogen production and oxygen demanding constituents compliant with dissolved oxygen model approved by TCEQ staff prior to the issuance date of this permit.
 - D. Outfall 101 Phase 2b defined as the Production Phase Final Requirements, active hydrogen production and oxygen demanding constituents compliant with dissolved oxygen model approved by TCEQ staff subsequent to the issuance date of this permit. See Other Requirements Nos. 9 and 10.
 - E. Outfall 002 Interim defined as the Interim Phase, no hydrogen production at the facility.
 - F. Outfall 002 Final defined as the Final Phase, active hydrogen production at the facility.
 - G. Outfall 003 Interim defined as the Interim Phase, no hydrogen production at the facility.
 - H. Outfall 003 Final defined as the Final Phase, active hydrogen production at the facility.
 - I. Outfall 004 Interim defined as the Interim Phase, no hydrogen production at the facility.
 - J. Outfall 004 Final defined as the Final Phase, active hydrogen production at the facility.
 - K. Outfall 005 Interim defined as the Interim Phase, no hydrogen production at the facility.
 - L. Outfall 005 Final defined as the Final Phase, active hydrogen production at the facility.
 - M. Outfall 006 Interim defined as the Interim Phase, no hydrogen production at the facility.
 - N. Outfall 006 Final defined as the Final Phase, active hydrogen production at the facility.
 - O. Outfall 007 Interim defined as the Interim Phase, no hydrogen production at the facility.
 - P. Outfall 007 Final defined as the Final Phase, active hydrogen production at the facility.
 - Q. Outfall 008 Interim defined as the Interim Phase, no hydrogen production at the facility.
 - R. Outfall 008 Final defined as the Final Phase, active hydrogen production at the facility.
 - S. Outfall 009 Interim defined as the Interim Phase, no hydrogen production at the facility.
 - T. Outfall 009 Final defined as the Final Phase, active hydrogen production at the facility.
8. Stormwater discharges from construction activities and construction support activities, and allowable non-stormwater discharges described in section (A)(1)-(8) below are authorized for discharge under this TPDES individual permit via all phases of Outfalls 001, 101, 002, 003, 004, 005, 006, 007, 008, and 009.
- A. Allowable non-stormwater discharges authorized for discharge are limited to the following, unless specific waste streams are identified on Pages 2, 2a, 2b, 2c, 2d, and 2e of this permit:
- (1) discharges from emergency fire-fighting activities (emergency fire-fighting activities do not include washing of trucks, run-off water from training activities, test water from fire suppression systems, or similar activities);

- (2) uncontaminated fire hydrant flushings (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life), which include flushings from systems that utilize potable water, surface water, or groundwater that does not contain additional pollutants (uncontaminated fire hydrant flushings do not include systems utilizing reclaimed wastewater as a source water);
 - (3) water from the routine external washing of vehicles, the external portion of buildings or structures, and pavement, where solvents, detergents, and soaps are not used, where spills or leaks of toxic or hazardous materials have not occurred (unless spilled materials have been removed; and if local state, or federal regulations are applicable, the materials are removed according to those regulations), and where the purpose is to remove mud, dirt, or dust;
 - (4) uncontaminated water used to control dust;
 - (5) potable water sources, including waterline flushings, but excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life;
 - (6) uncontaminated air conditioning condensate;
 - (7) uncontaminated ground water or spring water, including foundation or footing drains where flows are not contaminated with industrial materials such as solvents; and
 - (8) lawn watering and similar irrigation drainage.
- B. The permittee must implement and comply with the permit conditions and requirements outlined in the current TPDES stormwater Construction General Permit, TXR150000, effective on March 5, 2023, that are applicable for the type of operator and size of soil disturbing construction activities and construction support activities except as detailed in paragraphs (d) and (f) below. The permittee must identify and document the conditions and requirements established in TXR150000 that are applicable to its construction activities, including the development and implementation of a stormwater pollution prevention plan (SWP3) and best management practices (BMPs). The SWP3 must include justification documenting which conditions and requirements in TXR150000 are applicable to the permittee's construction activities and construction support activities.
- C. The SWP3 and any other applicable records required by TXR150000 must be kept current, maintained onsite, and made readily available to TCEQ, federal, state, or local government representatives upon request.
- D. Since stormwater discharges from construction activities and construction support activities and allowable non-stormwater discharges are authorized under this TPDES individual permit, there is no requirement for the permittee to obtain separate authorization(s) under TXR150000 by filing of a Notice of Intent (NOI) for construction activities and construction support activities performed within the permitted facility.
- E. If authorizations under TXR150000 for stormwater discharges from construction activities and construction support activities and allowable non-stormwater discharges at Outfalls 001, 002, 003, 004, 005, 006, 007, 008, and/or 009 exist, then the permittee must terminate coverage under TXR150000 for Outfalls 001, 002, 003, 004, 005, 006, 007, 008, and/or 009 upon issuance of this TPDES individual permit.

- F. *Final Stabilization*. Because stormwater discharges from construction and construction support activities are covered under this TPDES individual permit, the permittee does not need to submit a Notice of Termination (NOT) after final stabilization has been completed. Instead, the permittee must document in the SWP3 the dates when soil disturbing construction activities are completed, and the final stabilization conditions and requirements established in TXR150000 have been achieved on any portion of the permitted facility.
- G. Should the permittee decide to alternatively obtain coverage to discharge under TXR150000, the permittee must file an application for a minor amendment of this TPDES individual permit to remove the authorization to discharge stormwater from construction activities and construction support activities, and allowable non-stormwater discharges. Once this individual permit is modified and issued, it is the responsibility of the permittee to obtain coverage under the TXR150000 for any construction activities within the permitted facility.

The permittee is placed on notice that authorization to continue discharging stormwater from construction activities and construction support activities, and allowable non-stormwater discharges under this TPDES individual permit, this provision (Other Requirement No. 8) will be updated at the time of the next permitting action for this TPDES individual permit to require the permittee to comply with any new or revised conditions and requirements established within the current reissued and updated TXR150000.

9. OUTFALL 101 - ALTERNATIVE DISSOLVED OXYGEN MODELING

Outfall 101 includes two separate effluent sets for oxygen demanding constituents for each production phase.

The default effluent limitations sets are designated as *Phase 2a* and are based on the final dissolved oxygen modeling recommendations documented in TCEQ Interoffice Memorandum dated May 2, 2025. These effluent sets may be active based solely on the notification requirements in Other Requirement No. 7.

The alternate effluent limitations sets are designated as *Phase 2b* and are contingent on the completion of a '*Monte Carlo*' probabilistic statistical analysis of TPDES dischargers of oxygen-demanding constituents in the Neches River Tidal watershed are incorporated into the existing WASP3 model, under the condition that updated modeling using the *Monte Carlo* approach supports those alternative effluent limits are protective of the designated dissolved oxygen criteria for the receiving water and are compliant with all applicable State and Federal regulations. These effluent sets may be activated based on both 1) the notification requirements in Other Requirement No. 7; and 2) upon final approval, by TCEQ Water Quality Assessment staff, of a dissolved oxygen model that demonstrates the dissolved oxygen criteria of the receiving waters are protected.

10. The permittee may develop a dissolved oxygen model that uses a '*Monte Carlo*' probabilistic statistical analysis of TPDES dischargers of oxygen-demanding constituents in the Neches River Tidal watershed that are incorporated into the existing WASP3 model, under the condition that updated modeling using the *Monte Carlo* approach supports those alternative effluent limits are protective of the designated dissolved oxygen criteria for the receiving water and are compliant with all applicable State and Federal regulations.

The goal of the *Monte Carlo* approach is to demonstrate that the following effluent limitations for carbonaceous biochemical oxygen demand (5-day) and ammonia (as nitrogen) specified for the phase designated as *Phase 2b* for Outfall 101 (Pages 2b and 2d) are protective of the dissolved oxygen criterion of 3.0 mg/L in the receiving water.

Outfall/Phase	Parameter	Daily Average	Daily Maximum
101 Phase 2b	Carbonaceous Biochemical Oxygen Demand (5-day)	129.6 lbs/day	332 lbs/day
	Ammonia (as Nitrogen)	21.6 lbs/day	55 lbs/day

The dissolved oxygen model using the Monte Carlo approach must be submitted for review and approval to the TCEQ, Water Quality Assessment Section (MC-150). After TCEQ staff have reviewed and confirmed that the submitted model demonstrates that the effluent limitations above are protective of the receiving water dissolved oxygen criterion and is compliant with all applicable State and Federal regulations, Phase 2b for Outfall 101 will be eligible for activation.

If after review, the TCEQ staff determines that the submitted model demonstrates that an effluent limitation set that is less stringent than the limitations specified in Phase 2a and more stringent than the limitations specified in Phase 2b, then the effluent limitations supported by the model can be included in the permit Phase 2b of this permit via a minor amendment.

11. Wastewater discharged via Outfalls 001, 002, 003, 004, 005, 006, 007, 008, and 009 (all phases), must be sampled and analyzed as directed below for those parameters listed in Tables 1, 2, 3, and 4 of Attachment A of this permit. Analytical testing for a specific outfall/phase must be completed within 60 days of initial discharge of the respective outfall/phase.

Results of the analytical testing must be submitted within 90 days after the last sampling event of the respective outfall to the TCEQ Industrial Permits Team (MC 148) and Region 10 Office. Based on a technical review of the submitted analytical results, an amendment may be initiated by TCEQ staff to include additional effluent limitations, monitoring requirements, or both.

Table 1: Analysis is required for all pollutants in Table 1. Wastewater must be sampled and analyzed for those parameters listed in Table 1 for a minimum of four (4) sampling events, that are each at least one week apart, for each phase of Outfall 001; and a minimum of one (1) sampling event for each phase of Outfalls 002, 003, 004, 005, 006, 007, 008, and 009.

Table 2: Analysis is required for all pollutants in Table 2. Wastewater must be sampled and analyzed for those parameters listed in Table 2 for a minimum of four (4) sampling events, that are each at least one week apart, for each phase of Outfall 001; and a minimum of one (1) sampling event for each phase of Outfalls 002, 003, 004, 005, 006, 007, 008, and 009.

Table 3: Analysis is required for those pollutants in Table 3 that are used at the facility that could in any way contribute to contamination in the discharge from the respective outfall. Sampling and analysis must be conducted for a minimum of four (4) sampling events, that are each at least one week apart, for each phase of Outfall 001; and a minimum of one (1) sampling event for each phase of Outfalls 002, 003, 004, 005, 006, 007, 008, and 009. Enter "BA" in the "Samp. 1" column when no analysis is performed because the pollutant is believed to be absent.

Table 4: For all pollutants listed in Table 4, the permittee shall indicate whether each pollutant is believed to be present or absent in the discharge. Sampling and analysis must be conducted for each pollutant believed present for a minimum of one sampling event. This requirement is applicable to each phase of all outfalls, individually and separately.

The permittee shall report the flow at the respective outfall in MGD in the attachment. The permittee shall indicate on each table whether the samples are composite (C) or grab (G) by checking the appropriate box.

Attachment A

Table 1 – Conventional and Non-conventionals

Outfall No.:	☐ C ☐ G	Effluent Concentration (mg/L)					
Pollutant		Samp.	Samp.	Samp.	Samp.	Average	
Flow (MGD)							
BOD (5-day)							
CBOD (5-day)							
Chemical Oxygen Demand							
Total Organic Carbon							
Dissolved Oxygen							
Ammonia Nitrogen							
Total Suspended Solids							
Nitrate Nitrogen							
Total Organic Nitrogen							
Total Phosphorus							
Oil and Grease							
Total Residual Chlorine							
Total Dissolved Solids							
Sulfate							
Chloride							
Fluoride							
Total Alkalinity (mg/L as CaCO ₃)							
Temperature (°F)							
pH (Standard Units; min/max)							

Table 2 – Metals

Pollutant	Effluent Concentration (µg/L)¹					MAL² (µg/L)
	Samp.	Samp.	Samp.	Samp.	Average	
Aluminum, Total						2.5
Antimony, Total						5
Arsenic, Total						0.5
Barium, Total						3
Beryllium, Total						0.5
Cadmium, Total						1
Chromium, Total						3
Chromium, Hexavalent						3
Chromium, Trivalent						N/A
Copper, Total						2
Cyanide, Free						10
Lead, Total						0.5
Mercury, Total						0.005
Nickel, Total						2
Selenium, Total						5
Silver, Total						0.5
Thallium, Total						0.5
Zinc, Total						5.0

¹ Indicate units if different than µg/L.

² Minimum Analytical Level

Table 3 – Toxic Pollutants with Water Quality Criteria

Outfall No.:	☐ C ☐ G	Samp. 1 (µg/L) ³	Samp. 2 (µg/L) ³	Samp. 3 (µg/L) ³	Samp. 4 (µg/L) ³	Avg. (µg/L) ³	MAL (µg/L)
Pollutant							
Acrolein							0.7
Acrylonitrile							50
Anthracene							10
Benzene							10
Benzidine							50
Benzo(a)anthracene							5
Benzo(a)pyrene							5
Bis(2-chloroethyl)ether							10
Bis(2-ethylhexyl) phthalate							10
Bromodichloromethane							10
Bromoform							10
Carbon Tetrachloride							2
Chlorobenzene							10
Chlorodibromomethane							10
Chloroform							10
Chrysene							5
Cresols							10
1,2-Dibromoethane							10
<i>m</i> -Dichlorobenzene							10
<i>o</i> -Dichlorobenzene							10
<i>p</i> -Dichlorobenzene							10
3,3'-Dichlorobenzidine							5
1,2-Dichloroethane							10
1,1-Dichloroethylene							10
Dichloromethane							20
1,2-Dichloropropane							10
1,3-Dichloropropylene							10
2,4-Dimethylphenol							10
Di- <i>n</i> -Butyl Phthalate							10
Epichlorohydrin							1,000
Ethylbenzene							10
Ethylene Glycol							—
Fluoride							500
Hexachlorobenzene							5
Hexachlorobutadiene							10
Hexachlorocyclopentadiene							10
Hexachloroethane							20
4,4'-Isopropylidenediphenol [bisphenol A]							—

³ Indicate units if different than µg/L.

Outfall No.:	☐ C ☐ G	Samp. 1 (µg/L) ³	Samp. 2 (µg/L) ³	Samp. 3 (µg/L) ³	Samp. 4 (µg/L) ³	Avg. (µg/L) ³	MAL (µg/L)
Pollutant							
Methyl Ethyl Ketone							50
Methyl <i>tert</i> -butyl ether [MTBE]							—
Nitrobenzene							10
N-Nitrosodiethylamine							20
N-Nitroso-di- <i>n</i> -Butylamine							20
Nonylphenol							333
Pentachlorobenzene							20
Pentachlorophenol							5
Phenanthrene							10
Polychlorinated Biphenyls (PCBs) ⁴							0.2
Pyridine							20
1,2,4,5-Tetrachlorobenzene							20
1,1,2,2-Tetrachloroethane							10
Tetrachloroethylene							10
Toluene							10
1,1,1-Trichloroethane							10
1,1,2-Trichloroethane							10
Trichloroethylene							10
2,4,5-Trichlorophenol							50
TTHM (Total Trihalomethanes)							10
Vinyl Chloride							10

⁴ Total of detects for PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, PCB-1016. If all values are non-detects, enter the highest non-detect preceded by a "<" symbol.

Table 4

Outfall No.	☐ C ☐ G	Believed Present	Believed Absent	Average Conc. (mg/L)	Maximum Conc. (mg/L)	No. of Samples	MAL (mg/L)
Pollutant							
Bromide							0.400
Color (PCU)							—
Nitrate-Nitrite (as N)							—
Sulfide (as S)							—
Sulfite (as SO ₃)							—
Surfactants							—
Boron, total							0.020
Cobalt, total							0.0003
Iron, total							0.007
Magnesium, total							0.020
Manganese, total							0.0005
Molybdenum, total							0.001
Tin, total							0.005
Titanium, total							0.030

STATEMENT OF BASIS/TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

DESCRIPTION OF APPLICATION

Applicant: Linde Inc.; Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0005439000 (EPA I.D. No. TX0145106)

Regulated activity: Industrial wastewater permit

Type of application: New permit

Request: New permit

Authority: Federal Clean Water Act (CWA) §402; Texas Water Code (TWC) §26.027; 30 Texas Administrative Code (TAC) Chapter 305, Subchapters C-F, and Chapters 307 and 319; commission policies; and Environmental Protection Agency (EPA) guidelines

EXECUTIVE DIRECTOR RECOMMENDATION

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The draft permit will expire at midnight, five years from the date of permit issuance according to the requirements of 30 TAC §305.127(1)(C)(i).

REASON FOR PROJECT PROPOSED

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for a new permit.

PROJECT DESCRIPTION AND LOCATION

The applicant proposes to operate the Nederland Facility, a hydrogen and industrial gas manufacturing facility.

The proposed facility will consist of hydrogen production processes that will produce process wastewater which will be collected for onsite treatment. The wastewater treatment system design for the discharges via Outfall 001 is expected to consist of oil separation, equalization, biological treatment (aerobic & anaerobic treatment, wastewater cooling, and filtration/clarification), sludge removal & thickening; and treated effluent storage, including off-spec storage for re-routing effluent back to treatment. No treatment is proposed for the discharges via Outfalls 002, 003, 004, 005, 006, 007, 008, and 009. Domestic wastewater generated on-site is routed to the City of Beaumont POTW (WQ0010501020).

The facility is located at 6145 Highway 69 South, south of the City of Beaumont, Jefferson County, Texas 77705.

Discharge Routes and Designated Uses

The effluent is discharged via Outfall 001 and pipe directly to Neches River Tidal in Segment 0601 of the Neches River Basin; and via Outfalls 002, 003, 004, 005, 006, 007, 008, and 009 to a drainage ditch (not a water of the state), thence to a pond, thence to a drainage ditch, thence to Rhodair Gully, thence to Taylor Bayou Above Tidal in Segment 0701 of the Neches-Trinity Coastal Basin. The unclassified receiving water uses are limited aquatic life use for the pond, minimal aquatic life use for the drainage ditch and Rhodair Gully (upstream of Highway 69), and intermediate aquatic life use for Rhodair Gully (downstream of Highway 69). The designated uses for Segment No. 0601 are primary contact recreation and intermediate aquatic life use. The designated uses for Segment No. 0701 are

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primary contact recreation and intermediate aquatic life use. The effluent limits in the draft permit will maintain and protect the existing instream uses. All determinations are preliminary and subject to additional review and revisions.

Antidegradation Review

In accordance with 30 Texas Administrative Code §307.5 and TCEQ's *Procedures to Implement the Texas Surface Water Quality Standards* (June 2010), an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Neches River Tidal, Rhodair Gully (downstream of Hwy 69), and Taylor Bayou Above Tidal, which have been identified as having intermediate aquatic life uses. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

Endangered Species Review

The discharge from this permit is not expected to have an effect on any federal endangered or threatened aquatic or aquatic-dependent species or proposed species or their critical habitat. This determination is based on the United States Fish and Wildlife Service's (USFWS) biological opinion on the State of Texas authorization of the TPDES program (September 14, 1998; and October 21, 1998 update). To make this determination for TPDES permits, TCEQ and EPA only considered aquatic or aquatic dependent species occurring in watersheds of critical concern or high priority as listed in Appendix A of the USFWS biological opinion. The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. The permit does not require EPA review with respect to the presence of endangered or threatened species.

Impaired Water Bodies

Segment No. 0601 is currently listed on the State's inventory of impaired and threatened waters (the 2022 Clean Water Act Section 303(d) list). The listing is for bacteria and polychlorinated biphenyls (PCBs) in edible tissue from the lower boundary to the saltwater barrier at NHD RC 12020003000017 (AUs 0601_01, 0601_02, 0601_03, and 0601_04). The issuance of this permit is not anticipated to cause any additional adverse impact to the receiving water with regards to the listed impairments. No potential sources for bacteria and PCBs have been identified to be associated with the proposed operations at the facility.

Segment No. 0701 is also currently listed on the 2022 303(d) list for depressed dissolved oxygen in water from the saltwater lock 7.7 km (4.8 mi) downstream of SH 73 in Jefferson County upstream to the confluence with North Fork Taylor Bayou and South Fork Bayou. The issuance of this permit is not anticipated to cause any additional adverse impact to the receiving water with regards to the listed impairment. Only Outfalls 002 - 009 discharge to Segment No. 0701 and no additional loading of oxygen-demanding constituents to Segment No. 0701 is expected from these discharges.

Completed Total Maximum Daily Loads (TMDLs)

On July 19, 2023, the Texas Commission on Environmental Quality (TCEQ) adopted *Four Total Maximum Daily Loads for Indicator Bacteria in Neches River Tidal*, Assessment Units 0601_01, 0601_02, 0601_03, and 0601_04. The U.S. Environmental Protection Agency (USEPA) approved the TMDL on October 11, 2023. The total maximum daily load (TMDL) addresses elevated levels of bacteria in multiple assessment units in Segment No. 0601.

The associated *Implementation Plan for Five Total Maximum Daily Loads for Indicator Bacteria in Hillebrandt Bayou and Neches River Tidal* (I-Plan) was approved on August 16, 2023. The I-Plan includes eight (8) Management Measures and two (2) Control Actions. Based on the fact that none of

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the Management Measures or Control Actions in the I-Plan require any specific action in an individual industrial TPDES permit, no action is taken in this draft permit with regards to this TMDL and its associated I-Plan.

Dissolved Oxygen

The following determinations were made and summarized in the interoffice memorandum (IOM) from the Water Quality Assessment Team dated May 2, 2025.

Based on information submitted by the applicant, the wastestreams that are expected to contain significant levels of oxygen-demanding constituents within the Outfall 001 discharge are confined to those wastestreams associated with internal Outfall 101 and would be applicable only during the Production phases of the permit. No process wastewater is proposed for discharge during the interim Commissioning and ASU Operation phase ('Phase 1' (1.67 MGD)). Consequently, internal Outfall 101 is not applicable for the Commissioning and ASU Operation phase. Discharge via Outfall 001 during this interim flow phase is not expected to have a significant impact on dissolved oxygen levels in the receiving waters. No effluent limits for oxygen-demanding constituents are recommended for inclusion in the draft permit for 'Phase 1'.

A dissolved oxygen modeling analysis was conducted for the proposed Production Phase discharge via Outfall 001 using a WASP3 model for the main stem of Segment No. 0601. The model includes only loading inputs for oxygen-demanding constituents. The permit is being structured to place the loading effluent limits for these oxygen-demanding constituents at internal Outfall 101, which includes the wastestreams that are expected to contain significant levels of oxygen-demanding constituents. Internal Outfall 101 will be permitted as two phases: 'Phase 2a' and 'Phase 2b'. Outfall 001 'Phase 2' applies to both of these internal outfall phases.

Based on model results, effluent limits of 99.7 lbs/day CBOD₅ and 16.6 lbs/day NH₃-N are predicted to be adequate for internal Outfall 101 (0.535 MGD) during 'Phase 2a'.

A subsequent phasing scenario is proposed for inclusion in the draft permit, representing potential revised (higher) effluent limits that would become applicable once the results of a pending 'Monte Carlo' probabilistic statistical analysis of TPDES dischargers of oxygen-demanding constituents in the Neches River Tidal watershed are incorporated into the existing WASP3 model, under the condition that updated modeling using the Monte Carlo approach supports those alternative effluent limits. This phase for internal Outfall 101 is to be referenced as 'Phase 2b' (also 0.535 MGD) in the draft permit. The loading limits proposed by the applicant for inclusion in the draft permit for this phase are 129.6 lbs/day CBOD₅ and 21.6 lbs/day NH₃N. Modeling using the existing WASP3 model (without incorporation of the Monte Carlo factor) does not support these proposed effluent limits. The effluent limits applicable to these phases can only go into effect once the Monte Carlo factor results are incorporated into the model and only if those limits are supported by the updated modeling.

The draft permit is being structured to include Reporting requirements for CBOD₅ and NH₃-N (loadings) for Outfall 001 ('Phase 2') applicable during both of the internal Outfall 101 phases.

Due to the nature of the wastestreams for Outfalls 002 through 009, no significant dissolved oxygen depletion is anticipated in the receiving waters as a result those discharges.

SUMMARY OF EFFLUENT DATA

Self-reporting data is not available because the facility has not been constructed.

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REASONABLE POTENTIAL (RP) DETERMINATION

No requirements for whole effluent testing are included in the draft permit.

DRAFT PERMIT CONDITIONS

The draft permit authorizes the discharge of utility wastewater, stormwater, passivation water, and system flush water on a flow-variable basis via Outfall 001 (Phase 1); process wastewater, utility wastewater, passivation water, and system flush water, and stormwater at a daily average flow not to exceed 2,420,000 gallons per day via Outfall 001 (Phase 2); stormwater, hydrostatic test water, passivation water, and system flush water on an intermittent and flow-variable basis via Outfalls 002, 003, 004, 005, 006, 007, 008, and 009 (interim phase); and stormwater, hydrostatic wastewater, passivation water, system flush water, and firewater on an intermittent and flow-variable basis via Outfalls 002, 003, 004, 005, 006, 007, 008, and 009 (final phase).

Effluent limitations are established in the draft permit as follows:

Outfall/Phase	Pollutant	Daily Average	Daily Maximum
001 Phase 1 ¹	Flow	1.67 MGD	2.18 MGD
	Total Suspended Solids	N/A	Report (mg/L)
	Chemical Oxygen Demand	N/A	200 mg/L
	Oil and Grease	N/A	15 mg/L
	pH	6.0 SU (min)	9.0 SU
001 Phase 2 ²	Flow	2.42 MGD	4.18 MGD
	Carbonaceous Biochemical Oxygen Demand (5-day)	Report (lbs/day)	Report (lbs/day)
	Ammonia (as Nitrogen)	Report (lbs/day)	Report (lbs/day)
	Chemical Oxygen Demand	2,134 lbs/day	4,110 lbs/day
	Total Suspended Solids	451 lbs/day	1,280 lbs/day
	Oil and Grease	223 lbs/day	294 lbs/day
	Temperature ³	Report (°F)	Report (°F)
	pH	6.0 SU (min)	9.0 SU
101 Phase 2a ⁴	Flow	0.535 MGD	1.37 MGD
	Carbonaceous Biochemical Oxygen Demand (5-day)	99.7 lbs/day	255 lbs/day
	Ammonia (as Nitrogen)	16.6 lbs/day	43 lbs/day
101 Phase 2b ⁵	Flow	0.535 MGD	1.37 MGD
	Carbonaceous Biochemical Oxygen Demand (5-day)	129.6 lbs/day	332 lbs/day
	Ammonia (as Nitrogen)	21.6 lbs/day	55 lbs/day
002-009 ⁶	Flow	Report (MGD)	Report (MGD)
	Chemical Oxygen Demand	N/A	200 mg/L
	Oil and Grease	N/A	15 mg/L
	pH	6.0 SU (min)	9.0 SU

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- ¹ Outfall 001 Phase 1 requirements are effective beginning upon the date of facility passivation start-up and lasting through the date of facility production start-up.
- ² Outfall 001 Phase 2 requirements are effective beginning upon the date of facility production start-up and lasting through the date of permit expiration.
- ³ Effective beginning upon date of outfall/phase activation and lasting until 58 months after date of permit issuance.
- ⁴ Outfall 101 Phase 2a requirements are effective beginning upon the date of facility production start-up and lasting through either 1) the date of approval of modeling confirmation via 'Monte Carlo' probabilistic statistical analysis, or 2) the date of permit expiration.
- ⁵ Outfall 101 Phase 2b requirements are effective beginning upon the date of facility production start-up and date of approval of modeling confirmation via 'Monte Carlo' probabilistic statistical analysis and lasting through the date of permit expiration.
- ⁶ Effluent limitations and monitoring/reporting requirements are effective during both phases of Outfalls 002, 003, 004, 005, 006, 007, 008, and 009.

OUTFALL LOCATIONS

Outfall	Latitude	Longitude
001	30.024629 N	94.031210 W
002	30.001366 N	94.036849 W
003	30.000627 N	94.036465 W
004	30.000145 N	94.036204 W
005	29.998727 N	94.035342 W
006	29.998415 N	94.035342 W
007	29.997325 N	94.034920 W
008	29.997064 N	94.034779 W
009	29.996126 N	94.034287 W

Technology-Based Effluent Limitations

Regulations in Title 40 of the Code of Federal Regulations (40 CFR) require that technology-based limitations be placed in wastewater discharge permits based on effluent limitations guidelines, where applicable, or on best professional judgment (BPJ) in the absence of guidelines. Development of technology-based effluent limitations is presented in Appendix A.

Water Quality-Based Effluent Limitations

Calculations of water quality-based effluent limitations for the protection of aquatic life and human health are presented in Appendix B. Aquatic life criteria established in Table 1 and human health criteria established in Table 2 of 30 TAC Chapter 307 are incorporated into the calculations, as are recommendations in the Water Quality Assessment Team's Critical Conditions' Interoffice Memorandum (IOM) dated March 11, 2025. TCEQ practice for determining significant potential is to compare the reported analytical data from the facility against percentages of the calculated daily average water quality-based effluent limitation. Permit limitations are required when analytical data reported in the application exceeds 85 percent of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application exceeds 70 percent of the calculated daily average water quality-based effluent limitation.

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Outfall 001 Phase 1 corresponds with recommendations designated as “Phase I” in the Critical Conditions’ IOM dated March 11, 2025. Outfall 001 Phase 2 corresponds with recommendations designated as “Final Phase” in the Critical Conditions’ IOM dated March 11, 2025. The phase designated as “Interim Phase” in the Critical Conditions’ IOM dated March 11, 2025, is not incorporated into the draft permit.

The wastewater sources are not operational at this time so there is no effluent data from the facility to conduct water quality screening for a reasonable potential assessment. The draft permit includes a testing requirement (Other Requirement Provision No. 11) so actual data can be collected after discharge commences and a reasonable potential evaluation can be concluded at that time.

The draft permit includes self-expiring monitoring/reporting requirements for temperature for Phase 2 of Outfall 001.

Total Dissolved Solids (TDS), Chloride, and Sulfate Screening

The wastewater sources are not operational at this time so there is no effluent data from the facility to conduct water quality screening for a reasonable potential assessment. The draft permit includes a testing requirement (Other Requirement Provision No. 11) so actual data can be collected after discharge commences and a reasonable potential evaluation can be concluded at that time.

Outfall 001 discharges directly to Segment No. 0601, which does not have criteria established for TDS, chloride, or sulfate in 30 TAC Chapter 307; therefore, no screening was performed for TDS, chloride, or sulfate in the effluent for the discharge via Outfall 001.

Discharges from Outfalls 002-009 are not operational at this time so there is no effluent data from the facility to conduct water quality screening for a reasonable potential assessment. The draft permit includes a testing requirement (Other Requirement Provision No. 11) so actual data can be collected after discharge commences and a reasonable potential evaluation can be concluded at that time.

pH Screening

The draft permit includes pH limits of 6.0 – 9.0 SU at Outfall 001, which discharges directly into Neches River Tidal in Segment No. 0601 of the Neches River Basin. Screening was performed to ensure that these proposed pH limits would not cause a violation of the 6.0 – 8.5 SU pH criteria for Neches River Tidal in Segment No. 0601 of the Neches River Basin. (see Appendix C). The proposed effluent limits of 6.0 – 9.0 SU are adequate to ensure that the discharge will not violate the pH criteria in Neches River Tidal in Segment No. 0601 of the Neches River Basin.

The draft permit includes pH limits of 6.0 – 9.0 SU at Outfalls 002, 003, 004, 005, 006, 007, 008, and 009, which discharges into an unclassified water body. Consistent with the procedures for pH screening that were submitted to EPA with a letter dated May 28, 2014, and approved by EPA in a letter dated June 2, 2014, requiring a discharge to an unclassified water body to meet pH limits of 6.0 – 9.0 standard units reasonably ensures instream compliance with *Texas Surface Water Quality Standards* pH criteria.

316(b) Cooling Water Intake Structures

The facility obtains water from Lower Neches Valley Authority (LNVA), a public water system (PWS No. TX0360112), for cooling purposes. The use of water obtained from a public water system for cooling purposes does not constitute the use of a cooling water intake structure; therefore, the facility is not subject to Section 316(b) of the CWA or 40 CFR Part 125, Subpart J.

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Whole Effluent Toxicity Testing (Biomonitoring)

Biomonitoring requirements are not included in the draft permit because the discharges do not meet the threshold for requiring biomonitoring as established in the *Procedures to Implement the Texas Surface Water Quality Standards*.

SUMMARY OF CHANGES FROM APPLICATION

No changes were made from the application.

SUMMARY OF CHANGES FROM EXISTING PERMIT

N/A

BASIS FOR DRAFT PERMIT

The following items were considered in developing the draft permit:

1. Application received on September 8, 2023. Additional information received via letter dated October 4, 2023, from McCormick (Linde); and email dated July 27, 2025, from Fults (Burns & McDonnell).
2. TCEQ Rules.
3. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective March 1, 2018, as approved by EPA Region 6.
4. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective March 6, 2014, as approved by EPA Region 6, for portions of the 2018 standards not approved by EPA Region 6.
5. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective July 22, 2010, as approved by EPA Region 6, for portions of the 2014 standards not approved by EPA Region 6.
6. *Texas Surface Water Quality Standards* – 30 TAC §§307.1-307.10, effective August 17, 2000, and Appendix E, effective February 27, 2002, for portions of the 2010 standards not approved by EPA Region 6.
7. *Procedures to Implement the Texas Surface Water Quality Standards* (IPs), Texas Commission on Environmental Quality, June 2010, as approved by EPA Region 6.
8. *Procedures to Implement the Texas Surface Water Quality Standards*, Texas Commission on Environmental Quality, January 2003, for portions of the 2010 IPs not approved by EPA Region 6.
9. Memos from the Standards Implementation Team and Water Quality Assessment Team of the Water Quality Assessment Section of the TCEQ.
10. *Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits*, TCEQ Document No. 98-001.000-OWR-WQ, May 1998.
11. EPA Effluent Guidelines: not applicable. 40 CFR Part 415 Subpart AG (BPT) is utilized as best professional judgement. A new source determination was performed and the discharges from this facility are not classified as a new source as defined at 40 CFR §122.2.
12. Consistency with the Coastal Management Plan: The executive director has reviewed this action for consistency with the goals and policies of the Texas Coastal Management Program (CMP) in accordance with the regulations of the General Land Office and has determined that the action is consistent with the applicable CMP goals and policies.
13. Letter dated May 28, 2014, from L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ, to Bill Honker, Director, Water Quality Protection Division, EPA (TCEQ proposed development strategy for pH evaluation procedures).
14. Letter dated June 2, 2014, from William K. Honker, P.E., Director, Water Quality Protection Division, EPA, to L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ (Approval of TCEQ proposed development strategy for pH evaluation procedures).

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15. Letter dated April 29, 2014, from L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ, to Bill Honker, Director, Water Quality Protection Division, EPA (TCEQ proposed development strategy for thermal evaluation procedures)
16. Letter dated May 12, 2014, from William K. Honker, P.E., Director, Water Quality Protection Division, EPA, to L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ (Approval of TCEQ proposed development strategy for thermal evaluation procedures).
17. *Four Total Maximum Daily Loads for Indicator Bacteria in Neches River Tidal*, Assessment Units 0601_01, 0601_02, 0601_03, and 0601_04.

PROCEDURES FOR FINAL DECISION

When an application is declared administratively complete, the chief clerk sends a letter to the applicant advising the applicant to publish the Notice of Receipt of Application and Intent to Obtain Permit in the newspaper. In addition, the Chief Clerk instructs the applicant to place a copy of the application in a public place for reviewing and copying in the county where the facility is or will be located. This application will be in a public place throughout the comment period. The Chief Clerk also mails this notice to any interested persons and, if required, to landowners identified in the permit application. This notice informs the public about the application and provides that an interested person may file comments on the application or request a contested case hearing or a public meeting.

Once a draft permit is completed, it is sent to the Chief Clerk, along with the Executive Director's preliminary decision contained in the technical summary or fact sheet. At that time, the Notice of Application and Preliminary Decision will be mailed to the same people and published in the same newspaper as the prior notice. This notice sets a deadline for making public comments. The applicant must place a copy of the Executive Director's preliminary decision and draft permit in the public place with the application.

Any interested person may request a public meeting on the application until the deadline for filing public comments. A public meeting is intended for the taking of public comment and is not a contested case hearing.

After the public comment deadline, the Executive Director prepares a response to all significant public comments on the application or the draft permit raised during the public comment period. The Chief Clerk then mails the Executive Director's response to comments and final decision to people who have filed comments, requested a contested case hearing, or requested to be on the mailing list. This notice provides that if a person is not satisfied with the Executive Director's response and decision, they can request a contested case hearing or file a request to reconsider the Executive Director's decision within 30 days after the notice is mailed.

The Executive Director will issue the permit unless a written hearing request or request for reconsideration is filed within 30 days after the Executive Director's response to comments and final decision is mailed. If a hearing request or request for reconsideration is filed, the Executive Director will not issue the permit and will forward the application and request to the TCEQ commissioners for their consideration at a scheduled commission meeting. If a contested case hearing is held, it will be a legal proceeding similar to a civil trial in state district court.

If the Executive Director calls a public meeting or the commission grants a contested case hearing as described above, the commission will give notice of the date, time, and place of the meeting or hearing. If a hearing request or request for reconsideration is made, the commission will consider all public comments in making its decision and shall either adopt the Executive Director's response to public comments or prepare its own response.

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For additional information about this application, contact Michael Sunderlin at (512) 239-4523.

Michael Sunderlin

Michael Sunderlin

September 11, 2025

Date

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
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Appendix A
Calculated Technology-Based Effluent Limits

The proposed project will include two hydrogen (H₂) production trains, one air separation unit (ASU), carbon dioxide (CO₂) removal systems, and supporting utilities. The facility will produce approximately 300,000 tons per year of purified hydrogen and will include equipment to remove, dry, and compress more than 2 million tons of CO₂ per year from the hydrogen production process for offsite sequestration. The process will produce hydrogen from natural gas using a design that reduces CO₂ emissions to the atmosphere. In this process, CO₂ will be separated and exported from the facility via a third-party owned and operated pipeline to an offsite CO₂ sequestration site.

The Nederland Facility will include two primary industrial gas production operations. In the first primary operation, pipeline quality natural gas will be converted to purified hydrogen and concentrated CO₂ using auto-thermal reforming (ATR), carbon monoxide shift converters, amine-based CO₂ removal, CO₂ compression and drying, and hydrogen purification and compression technologies. The second primary operation will involve cryogenic separation of ambient air to produce purified nitrogen, oxygen, and other separated air products. The primary production operations will be supported by utility systems that include process water treatment, steam generation, cooling water, wastewater treatment, and an elevated gas flare.

The hydrogen production processes will produce process wastewater which will be collected for onsite treatment. The wastewater treatment system design consists of the following treatment processes:

- Oil Separation;
- Equalization;
- Biological Treatment – Aerobic & Anaerobic Treatment, Wastewater Cooling, Filtration/Clarification;
- Sludge Removal & Thickening; and
- Treated Effluent Storage, including Off-Spec Storage for re-routing effluent back to treatment.

The applicant requests authorization for the following discharges:

- utility wastewater, stormwater, passivation water, and system flush water on a flow-variable basis via Outfall 001 during the commissioning phase (start-up phase after the facility is constructed and prior to commencement of routine facility production operations);
- process wastewater, utility wastewater, and stormwater at a daily average flow not to exceed 2,420,000 gallons per day via Outfall 001 during the final phase (after commencement of routine facility production operations);
- stormwater, hydrostatic test water, passivation water, and system flush water on an intermittent and flow-variable basis via Outfalls 002-009 during the commissioning phase (start-up phase after the facility is constructed and prior to commencement of routine facility production operations); and
- stormwater commingled with *de minimis* quantities of hydrostatic wastewater and firewater on an intermittent and flow-variable basis via Outfalls 002-009 during the final phase (after commencement of routine facility production operations).

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Outfall 001 – Interim Phase

Effluent limitations for chemical oxygen demand (COD), oil & grease (O&G), and pH are based on BPJ and are consistent with limitations established in other TPDES permits for similar wastewaters. Monitoring/reporting requirements for total suspended solids are also based on BPJ. Monitoring/reporting requirements for flow are based on 40 CFR 122.44(i)(1)(ii).

Outfall 001 – Final Phase

Effluent limitation allocations for chemical oxygen demand (COD), total suspended solids (TSS), and oil & grease (O&G) are calculated in one of the two following manners:

Production based allocations are calculated by multiplying a production-based criteria established as pounds of pollutant per 1,000 pounds of product (lbs/klbs product) produced by a production rate in the units of 1,000 pounds of product produced per day (klbs/day) to determine pounds of pollutant loading per day (lbs/day).

$$\text{[Production Criteria (lbs/klbs product)]} \times \text{[Production Rate (klbs/day)]} = \text{[Pollutant Loading (lbs/day)]}$$

Flow based allocations are calculated by multiplying a concentration-based criteria in milligrams per liter (mg/L) by the contributing source flowrate in million gallons per day (MGD) and the constant factor (8.345) to determine pounds of pollutant loading per day (lbs/day).

$$\text{[Concentration Criteria (mg/L)]} \times \text{[Flowrate (MGD)]} \times \text{[8.345]} = \text{[Pollutant Loading (lbs/day)]}$$

Calculated allocations from all contributing sources are summed to derive the loading limitations at the outfall.

A. Process Wastewater Allocations

As stated in the application, the Nederland facility will be designed to produce 300,000 tons per year of purified hydrogen per year. The process used will be similar to the production process regulated in 40 CFR Part 415 Subpart AG, the Carbon Monoxide and By-Product Hydrogen Production Subcategory. Due to this subpart being applicable to discharges resulting from the production of carbon monoxide and by-product hydrogen by the reforming process, requests for clarification were submitted to EPA regarding if these guidelines were applicable in this situation where hydrogen is produced as a direct product of the reforming process and carbon monoxide is handled as waste product of the process. No response was ever received from EPA, so the determination at this time is that this process is not subject to 40 CFR Part 415 Subpart AG, but this subpart will be used as BPJ to develop appropriate allocations for the process wastewater contributing sources.

Allocations were calculated based on the production rate of 300,000 tons per year for purified hydrogen, which equals 1,643.84 klbs/day when converted using the factors one (1) year equals 365 days, and one ton equals two (2) thousand pounds (klbs). It is acknowledged that the production rates in the guideline are based on production of carbon monoxide (the primary product), however the production rates are used in this instance because hydrogen is the primary product, and the guideline is used as BPJ.

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Pollutant	Dly Avg Lbs/klbs	Dly Max Lbs/klbs	Production klbs/day	Dly Avg Lbs/day	Dly Max Lbs/day
COD	0.25	0.50	1,643.84	410.96	821.92
TSS	0.060	0.12	1,643.84	98.63	197.26

In addition to the allocations above for COD and TSS, BPJ allocations were developed for oil & grease.

Allocations were calculated the process wastewater flow provided in the application and the BPJ concentration criteria derived from the quality criteria for low-volume wastes found in 40 CFR Part 423. The treatment and control technologies for oil & grease should be similar to those for low-volume wastewaters.

Pollutant	Dly Avg mg/L	Dly Max mg/L	Flow (MGD)	Dly Avg Lbs/day	Dly Max Lbs/day
O&G	15	20	0.44	55.08	73.44

B. Utility Wastewater

Allocations were calculated using the sum of the flows for the contributing wastestreams that are categorized as utility wastewaters and concentration criteria based on BPJ. The BPJ criteria for COD are based on the expected quality levels of this category of wastewaters. The BPJ criteria for TSS and oil & grease are derived from the quality criteria for low-volume wastes found in 40 CFR Part 423. The quality and character of low-volume wastes is very similar to those for utility wastewaters.

Pollutant	Dly Avg mg/L	Dly Max mg/L	Flow (MGD)	Dly Avg Lbs/day	Dly Max Lbs/day
COD	150	300	1.25	1,564.69	3,129.37
TSS	30	100	1.25	312.94	1,043.13
Oil & Grease	15	20	1.25	156.47	208.62

C. Stormwater

Allocations were calculated using the sum of the flows for the contributing stormwater sources and concentration criteria based on BPJ. The BPJ criteria for COD and O&G are based on the expected quality levels for stormwater. The BPJ criteria for TSS are based on the benchmark limitations for TSS in the Multi-Sector General Permit.

Pollutant	Dly Avg mg/L	Dly Max mg/L	Flow (MGD)	Dly Avg Lbs/day	Dly Max Lbs/day
COD	200	200	0.095	158.55	158.55
TSS	50	50	0.095	39.64	39.64
Oil & Grease	15	15	0.095	11.89	11.89

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D. Summations

The calculated allocations for the contributing sources are summed to derive mass-based effluent limitations for the discharge via Outfall 001 during the final phase.

Parameter	Contributing Source	Daily Avg lbs/day	Daily Max lbs/day
Chemical Oxygen Demand	Process Wastewater	410.96	821.92
	Utility Wastewater	1,564.69	3,129.37
	Stormwater	158.55	158.55
	Total	2,134.20 ~ 2,134	4,109.84 ~ 4,110
Total Suspended Solids	Process Wastewater	98.63	197.26
	Utility Wastewater	312.94	1,043.13
	Stormwater	39.64	39.64
	Total	451.21 ~ 451	1,280.03 ~ 1,280
Oil & Grease	Process Wastewater	55.08	73.44
	Utility Wastewater	156.47	208.62
	Stormwater	11.89	11.89
	Total	223.44 ~ 223	293.95 ~ 294

Outfalls 002-009 – Interim Phase

Effluent limitations for chemical oxygen demand (COD), oil & grease (O&G), and pH are based on BPJ and are consistent with limitations established in other TPDES permits for similar wastewaters. Monitoring/reporting requirements for flow are based on 40 CFR 122.44(i)(1)(ii)

Outfalls 002-009 – Final Phase

Effluent limitations for chemical oxygen demand (COD), oil & grease (O&G), and pH are based on BPJ and are consistent with limitations established in other TPDES permits for similar wastewaters. Monitoring/reporting requirements for flow are based on 40 CFR 122.44(i)(1)(ii)

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Appendix B
Calculated Water Quality-Based Effluent Limits

TEXTOX MENU #5 - BAY OR WIDE TIDAL RIVER

The water quality-based effluent limitations developed below are calculated using:

Table 1, 2014 Texas Surface Water Quality Standards (30 TAC 307) for Saltwater Aquatic Life

Table 2, 2018 Texas Surface Water Quality Standards for Human Health

"Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION

Permittee Name:	Linde Inc.
TPDES Permit No:	WQ0005439000
Outfall No:	001 Phase 1
Prepared by:	Michael Sunderlin
Date:	March 18, 2025

DISCHARGE INFORMATION

Receiving Waterbody:	Neches River Tidal
Segment No:	0601
TSS (mg/L):	8
Effluent Flow for Aquatic Life (MGD)	N/A
% Effluent for Chronic Aquatic Life (Mixing Zone):	9.4
% Effluent for Acute Aquatic Life (ZID):	13.9
Oyster Waters?	no
Effluent Flow for Human Health (MGD):	N/A
% Effluent for Human Health:	5.6

CALCULATE DISSOLVED FRACTION (AND ENTER WATER EFFECT RATIO IF APPLICABLE):

<i>Estuarine Metal</i>	<i>Intercept (b)</i>	<i>Slope (m)</i>	<i>Partition Coefficient (Kp)</i>	<i>Dissolved Fraction (Cd/Ct)</i>	<i>Source</i>	<i>Water Effect Ratio (WER)</i>	<i>Source</i>
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Cadmium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Chromium (total)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Chromium (trivalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	4.85	-0.72	15841	0.888		1.00	Assumed
Lead	6.06	-0.85	196053	0.389		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	5.86	-0.74	155494	0.446		1.00	Assumed
Zinc	5.36	-0.52	77695	0.617		1.00	Assumed

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AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>SW Acute Criterion (µg/L)</i>	<i>SW Chronic Criterion (µg/L)</i>	<i>WLAa (µg/L)</i>	<i>WLAc (µg/L)</i>	<i>LTAa (µg/L)</i>	<i>LTAc (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Acrolein	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Aldrin	1.3	N/A	9.35	N/A	2.99	N/A	4.39	9.30
Aluminum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arsenic	149	78	1072	830	343	506	504	1066
Cadmium	40.0	8.75	288	93.1	92.1	56.8	83.4	176
Carbaryl	613	N/A	4410	N/A	1411	N/A	2074	4388
Chlordane	0.09	0.004	0.647	0.0426	0.207	0.0260	0.0381	0.0807
Chlorpyrifos	0.011	0.006	0.0791	0.0638	0.0253	0.0389	0.0372	0.0787
Chromium (trivalent)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chromium (hexavalent)	1090	49.6	7842	528	2509	322	473	1001
Copper	13.5	3.6	109	43.2	35.0	26.3	38.6	81.8
Copper (oyster waters)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cyanide (free)	5.6	5.6	40.3	59.6	12.9	36.3	18.9	40.0
4,4'-DDT	0.13	0.001	0.935	0.0106	0.299	0.00649	0.00953	0.0201
Demeton	N/A	0.1	N/A	1.06	N/A	0.649	0.953	2.01
Diazinon	0.819	0.819	5.89	8.71	1.89	5.31	2.77	5.86
Dicofol [Kelthane]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dieldrin	0.71	0.002	5.11	0.0213	1.63	0.0130	0.0190	0.0403
Diuron	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Endosulfan I (<i>alpha</i>)	0.034	0.009	0.245	0.0957	0.0783	0.0584	0.0858	0.181
Endosulfan II (<i>beta</i>)	0.034	0.009	0.245	0.0957	0.0783	0.0584	0.0858	0.181
Endosulfan sulfate	0.034	0.009	0.245	0.0957	0.0783	0.0584	0.0858	0.181
Endrin	0.037	0.002	0.266	0.0213	0.0852	0.0130	0.0190	0.0403
Guthion [Azinphos Methyl]	N/A	0.01	N/A	0.106	N/A	0.0649	0.0953	0.201
Heptachlor	0.053	0.004	0.381	0.0426	0.122	0.0260	0.0381	0.0807
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.16	N/A	1.15	N/A	0.368	N/A	0.541	1.14
Lead	133	5.3	2458	145	786	88.3	129	274
Malathion	N/A	0.01	N/A	0.106	N/A	0.0649	0.0953	0.201
Mercury	2.1	1.1	15.1	11.7	4.83	7.14	7.10	15.0
Methoxychlor	N/A	0.03	N/A	0.319	N/A	0.195	0.286	0.605
Mirex	N/A	0.001	N/A	0.0106	N/A	0.00649	0.00953	0.0201
Nickel	118	13.1	849	139	272	85.0	124	264
Nonylphenol	7	1.7	50.4	18.1	16.1	11.0	16.2	34.3
Parathion (ethyl)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pentachlorophenol	15.1	9.6	109	102	34.8	62.3	51.1	108
Phenanthrene	7.7	4.6	55.4	48.9	17.7	29.9	26.0	55.1
Polychlorinated Biphenyls [PCBs]	10	0.03	71.9	0.319	23.0	0.195	0.286	0.605
Selenium	564	136	4058	1447	1298	883	1297	2744
Silver	2	N/A	32.3	N/A	10.3	N/A	15.1	32.1
Toxaphene	0.21	0.0002	1.51	0.00213	0.483	0.00130	0.00190	0.00403
Tributyltin [TBT]	0.24	0.0074	1.73	0.0787	0.553	0.0480	0.0705	0.149
2,4,5 Trichlorophenol	259	12	1863	128	596	77.9	114	242
Zinc	92.7	84.2	1081	1453	346	886	508	1076

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TPDES Permit No. WQ0005439000

HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>Fish Only Criterion (µg/L)</i>	<i>WLAh (µg/L)</i>	<i>LTAh (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Acrylonitrile	115	2054	1910	2807	5939
Aldrin	1.147E-05	0.000205	0.000190	0.000280	0.000592
Anthracene	1317	23518	21872	32151	68020
Antimony	1071	19125	17786	26145	55315
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	N/A	N/A	N/A	N/A	N/A
Benzene	581	10375	9649	14183	30007
Benzidine	0.107	1.91	1.78	2.61	5.52
Benzo(a)anthracene	0.025	0.446	0.415	0.610	1.29
Benzo(a)pyrene	0.0025	0.0446	0.0415	0.0610	0.129
Bis(chloromethyl)ether	0.2745	4.90	4.56	6.70	14.1
Bis(2-chloroethyl)ether	42.83	765	711	1045	2212
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	7.55	135	125	184	389
Bromodichloromethane [Dichlorobromomethane]	275	4911	4567	6713	14203
Bromoform [Tribromomethane]	1060	18929	17604	25877	54747
Cadmium	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	46	821	764	1122	2375
Chlordane	0.0025	0.0446	0.0415	0.0610	0.129
Chlorobenzene	2737	48875	45454	66817	141361
Chlorodibromomethane [Dibromochloromethane]	183	3268	3039	4467	9451
Chloroform [Trichloromethane]	7697	137446	127825	187903	397536
Chromium (hexavalent)	502	8964	8337	12255	25927
Chrysene	2.52	45.0	41.9	61.5	130
Cresols [Methylphenols]	9301	166089	154463	227060	480380
Cyanide (free)	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.0357	0.0332	0.0488	0.103
4,4'-DDE	0.00013	0.00232	0.00216	0.00317	0.00671
4,4'-DDT	0.0004	0.00714	0.00664	0.00976	0.0206
2,4'-D	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	473	8446	7855	11547	24429
1,2-Dibromoethane [Ethylene Dibromide]	4.24	75.7	70.4	103	218
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	595	10625	9881	14525	30730
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	3299	58911	54787	80536	170387
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	2.24	40.0	37.2	54.6	115
1,2-Dichloroethane	364	6500	6045	8886	18799
1,1-Dichloroethylene [1,1-Dichloroethene]	55114	984179	915286	1345470	2846539
Dichloromethane [Methylene Chloride]	13333	238089	221423	325491	688625
1,2-Dichloropropane	259	4625	4301	6322	13376
1,3-Dichloropropene [1,3-Dichloropropylene]	119	2125	1976	2905	6146
Dicofol [Kelthane]	0.30	5.36	4.98	7.32	15.4
Dieldrin	2.0E-05	0.000357	0.000332	0.000488	0.00103
2,4-Dimethylphenol	8436	150643	140098	205943	435704
Di- <i>n</i> -Butyl Phthalate	92.4	1650	1535	2255	4772
Dioxins/Furans [TCDD Equivalents]	7.97E-08	0.0000014	0.0000013	0.0000019	0.0000041

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
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TPDES Permit No. WQ0005439000

<i>Parameter</i>	<i>Fish Only Criterion (µg/L)</i>	<i>WLAh (µg/L)</i>	<i>LTAh (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Endrin	0.02	0.357	0.332	0.488	1.03
Epichlorohydrin	2013	35946	33430	49142	103967
Ethylbenzene	1867	33339	31006	45578	96427
Ethylene Glycol	1.68E+07	300000000	279000000	410130000	867690000
Fluoride	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.0001	0.00179	0.00166	0.00244	0.00516
Heptachlor Epoxide	0.00029	0.00518	0.00482	0.00707	0.0149
Hexachlorobenzene	0.00068	0.0121	0.0113	0.0166	0.0351
Hexachlorobutadiene	0.22	3.93	3.65	5.37	11.3
Hexachlorocyclohexane (<i>alpha</i>)	0.0084	0.150	0.140	0.205	0.433
Hexachlorocyclohexane (<i>beta</i>)	0.26	4.64	4.32	6.34	13.4
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.341	6.09	5.66	8.32	17.6
Hexachlorocyclopentadiene	11.6	207	193	283	599
Hexachloroethane	2.33	41.6	38.7	56.8	120
Hexachlorophene	2.90	51.8	48.2	70.7	149
4,4'-Isopropylidenediphenol [Bisphenol A]	15982	285393	265415	390160	825441
Lead	3.83	176	163	240	508
Mercury	0.0250	0.446	0.415	0.610	1.29
Methoxychlor	3.0	53.6	49.8	73.2	154
Methyl Ethyl Ketone	9.92E+05	17714286	16474286	24217200	51235028
Methyl <i>tert</i> -butyl ether [MTBE]	10482	187179	174076	255891	541376
Nickel	1140	20357	18932	27830	58878
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	1873	33446	31105	45724	96737
N-Nitrosodiethylamine	2.1	37.5	34.9	51.2	108
N-Nitroso-di- <i>n</i> -Butylamine	4.2	75.0	69.8	102	216
Pentachlorobenzene	0.355	6.34	5.90	8.66	18.3
Pentachlorophenol	0.29	5.18	4.82	7.07	14.9
Polychlorinated Biphenyls [PCBs]	6.4E-04	0.0114	0.0106	0.0156	0.0330
Pyridine	947	16911	15727	23118	48910
Selenium	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.24	4.29	3.99	5.85	12.3
1,1,2,2-Tetrachloroethane	26.35	471	438	643	1360
Tetrachloroethylene [Tetrachloroethylene]	280	5000	4650	6835	14461
Thallium	0.23	4.11	3.82	5.61	11.8
Toluene	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.196	0.183	0.268	0.568
2,4,5-TP [Silvex]	369	6589	6128	9008	19058
1,1,1-Trichloroethane	784354	14006321	13025879	19148042	40510483
1,1,2-Trichloroethane	166	2964	2757	4052	8573
Trichloroethylene [Trichloroethene]	71.9	1284	1194	1755	3713
2,4,5-Trichlorophenol	1867	33339	31006	45578	96427
TTHM [Sum of Total Trihalomethanes]	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	16.5	295	274	402	852

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TPDES Permit No. WQ0005439000

CALCULATE 70% AND 85% OF DAILY AVERAGE EFFLUENT LIMITATIONS:

Aquatic Life	70% of Daily Avg.	85% of Daily Avg.
Parameter	(µg/L)	(µg/L)
Acrolein	N/A	N/A
Aldrin	3.07	3.73
Aluminum	N/A	N/A
Arsenic	352	428
Cadmium	58.4	70.9
Carbaryl	1452	1763
Chlordane	0.0267	0.0324
Chlorpyrifos	0.0260	0.0316
Chromium (trivalent)	N/A	N/A
Chromium (hexavalent)	331	402
Copper	27.0	32.8
Copper (oyster waters)	N/A	N/A
Cyanide (free)	13.2	16.1
4,4'-DDT	0.00667	0.00810
Demeton	0.667	0.810
Diazinon	1.94	2.35
Dicofol [Kelthane]	N/A	N/A
Dieldrin	0.0133	0.0162
Diuron	N/A	N/A
Endosulfan I (<i>alpha</i>)	0.0600	0.0729
Endosulfan II (<i>beta</i>)	0.0600	0.0729
Endosulfan sulfate	0.0600	0.0729
Endrin	0.0133	0.0162
Guthion [Azinphos Methyl]	0.0667	0.0810
Heptachlor	0.0267	0.0324
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.379	0.460
Lead	90.8	110
Malathion	0.0667	0.0810
Mercury	4.97	6.04
Methoxychlor	0.200	0.243
Mirex	0.00667	0.00810
Nickel	87.4	106
Nonylphenol	11.3	13.7
Parathion (ethyl)	N/A	N/A
Pentachlorophenol	35.7	43.4
Phenanthrene	18.2	22.1
Polychlorinated Biphenyls [PCBs]	0.200	0.243
Selenium	908	1102
Silver	10.6	12.9
Toxaphene	0.00133	0.00162
Tributyltin [TBT]	0.0494	0.0600
2,4,5 Trichlorophenol	80.1	97.3
Zinc	356	432

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
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Human Health Parameter	70% of Daily Avg. (µg/L)	85% of Daily Avg. (µg/L)
Acrylonitrile	1965	2386
Aldrin	0.000196	0.000238
Anthracene	22505	27328
Antimony	18302	22223
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	9928	12056
Benzidine	1.82	2.22
Benzo(a)anthracene	0.427	0.518
Benzo(a)pyrene	0.0427	0.0518
Bis(chloromethyl)ether	4.69	5.69
Bis(2-chloroethyl)ether	731	888
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	129	156
Bromodichloromethane [Dichlorobromomethane]	4699	5706
Bromoform [Tribromomethane]	18114	21995
Cadmium	N/A	N/A
Carbon Tetrachloride	786	954
Chlordane	0.0427	0.0518
Chlorobenzene	46771	56794
Chlorodibromomethane [Dibromochloromethane]	3127	3797
Chloroform [Trichloromethane]	131532	159717
Chromium (hexavalent)	8578	10416
Chrysene	43.0	52.2
Cresols [Methylphenols]	158942	193001
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0341	0.0415
4,4'-DDE	0.00222	0.00269
4,4'-DDT	0.00683	0.00830
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	8082	9815
1,2-Dibromoethane [Ethylene Dibromide]	72.4	87.9
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	10167	12346
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	56375	68456
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	38.2	46.4
1,2-Dichloroethane	6220	7553
1,1-Dichloroethylene [1,1-Dichloroethene]	941829	1143649
Dichloromethane [Methylene Chloride]	227844	276668
1,2-Dichloropropane	4425	5374
1,3-Dichloropropene [1,3-Dichloropropylene]	2033	2469
Dicofol [Kelthane]	5.12	6.22
Dieldrin	0.000341	0.000415
2,4-Dimethylphenol	144160	175052
Di- <i>n</i> -Butyl Phthalate	1579	1917
Dioxins/Furans [TCDD Equivalents]	0.0000014	0.0000017
Endrin	0.341	0.415
Epichlorohydrin	34399	41771
Ethylbenzene	31904	38741
Ethylene Glycol	287091000	348610500
Fluoride	N/A	N/A

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TPDES Permit No. WQ0005439000

Human Health Parameter	70% of Daily Avg. (µg/L)	85% of Daily Avg. (µg/L)
Heptachlor	0.00170	0.00207
Heptachlor Epoxide	0.00495	0.00601
Hexachlorobenzene	0.0116	0.0141
Hexachlorobutadiene	3.75	4.56
Hexachlorocyclohexane (<i>alpha</i>)	0.143	0.174
Hexachlorocyclohexane (<i>beta</i>)	4.44	5.39
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	5.82	7.07
Hexachlorocyclopentadiene	198	240
Hexachloroethane	39.8	48.3
Hexachlorophene	49.5	60.1
4,4'-Isopropylidenediphenol [Bisphenol A]	273112	331636
Lead	168	204
Mercury	0.427	0.518
Methoxychlor	51.2	62.2
Methyl Ethyl Ketone	16952040	20584620
Methyl <i>tert</i> -butyl ether [MTBE]	179124	217508
Nickel	19481	23655
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	32007	38865
N-Nitrosodiethylamine	35.8	43.5
N-Nitroso-di- <i>n</i> -Butylamine	71.7	87.1
Pentachlorobenzene	6.06	7.36
Pentachlorophenol	4.95	6.01
Polychlorinated Biphenyls [PCBs]	0.0109	0.0132
Pyridine	16183	19650
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	4.10	4.98
1,1,2,2-Tetrachloroethane	450	546
Tetrachloroethylene [Tetrachloroethylene]	4784	5810
Thallium	3.93	4.77
Toluene	N/A	N/A
Toxaphene	0.187	0.228
2,4,5-TP [Silvex]	6305	7656
1,1,1-Trichloroethane	13403629	16275835
1,1,2-Trichloroethane	2836	3444
Trichloroethylene [Trichloroethene]	1228	1491
2,4,5-Trichlorophenol	31904	38741
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	281	342

**STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TPDES Permit No. WQ0005439000**

TEXTOX MENU #5 - BAY OR WIDE TIDAL RIVER

The water quality-based effluent limitations developed below are calculated using:

Table 1, 2014 Texas Surface Water Quality Standards (30 TAC 307) for Saltwater Aquatic Life

Table 2, 2018 Texas Surface Water Quality Standards for Human Health

"Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION

Permittee Name:	Linde Inc.
TPDES Permit No:	WQ0005439000
Outfall No:	001 Phase 2 (Final Phase)
Prepared by:	Michael Sunderlin
Date:	March 18, 2024

DISCHARGE INFORMATION

Receiving Waterbody:	Neches River Tidal
Segment No:	0601
TSS (mg/L):	8
Effluent Flow for Aquatic Life (MGD)	N/A
% Effluent for Chronic Aquatic Life (Mixing Zone):	4.71
% Effluent for Acute Aquatic Life (ZID):	9.31
Oyster Waters?	no
Effluent Flow for Human Health (MGD):	N/A
% Effluent for Human Health:	3.76

CALCULATE DISSOLVED FRACTION (AND ENTER WATER EFFECT RATIO IF APPLICABLE):

<i>Estuarine Metal</i>	<i>Intercept (b)</i>	<i>Slope (m)</i>	<i>Partition Coefficient (Kp)</i>	<i>Dissolved Fraction (Cd/Ct)</i>	<i>Source</i>	<i>Water Effect Ratio (WER)</i>	<i>Source</i>
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Cadmium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Chromium (total)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Chromium (trivalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	4.85	-0.72	15841	0.888		1.00	Assumed
Lead	6.06	-0.85	196053	0.389		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	5.86	-0.74	155494	0.446		1.00	Assumed
Zinc	5.36	-0.52	77695	0.617		1.00	Assumed

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TPDES Permit No. WQ0005439000

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>SW Acute Criterion (µg/L)</i>	<i>SW Chronic Criterion (µg/L)</i>	<i>WLAa (µg/L)</i>	<i>WLAc (µg/L)</i>	<i>LTAa (µg/L)</i>	<i>LTAc (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Acrolein	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Aldrin	1.3	N/A	14.0	N/A	4.47	N/A	6.56	13.8
Aluminum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arsenic	149	78	1600	1656	512	1010	752	1592
Cadmium	40.0	8.75	430	186	137	113	166	352
Carbaryl	613	N/A	6584	N/A	2107	N/A	3097	6552
Chlordane	0.09	0.004	0.967	0.0849	0.309	0.0518	0.0761	0.161
Chlorpyrifos	0.011	0.006	0.118	0.127	0.0378	0.0777	0.0555	0.117
Chromium (trivalent)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chromium (hexavalent)	1090	49.6	11708	1053	3747	642	944	1997
Copper	13.5	3.6	163	86.1	52.3	52.5	76.8	162
Copper (oyster waters)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cyanide (free)	5.6	5.6	60.2	119	19.2	72.5	28.2	59.8
4,4'-DDT	0.13	0.001	1.40	0.0212	0.447	0.0130	0.0190	0.0402
Demeton	N/A	0.1	N/A	2.12	N/A	1.30	1.90	4.02
Diazinon	0.819	0.819	8.80	17.4	2.82	10.6	4.13	8.75
Dicofol [Kelthane]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dieldrin	0.71	0.002	7.63	0.0425	2.44	0.0259	0.0380	0.0805
Diuron	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Endosulfan I (<i>alpha</i>)	0.034	0.009	0.365	0.191	0.117	0.117	0.171	0.362
Endosulfan II (<i>beta</i>)	0.034	0.009	0.365	0.191	0.117	0.117	0.171	0.362
Endosulfan sulfate	0.034	0.009	0.365	0.191	0.117	0.117	0.171	0.362
Endrin	0.037	0.002	0.397	0.0425	0.127	0.0259	0.0380	0.0805
Guthion [Azinphos Methyl]	N/A	0.01	N/A	0.212	N/A	0.130	0.190	0.402
Heptachlor	0.053	0.004	0.569	0.0849	0.182	0.0518	0.0761	0.161
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.16	N/A	1.72	N/A	0.550	N/A	0.808	1.71
Lead	133	5.3	3669	289	1174	176	259	548
Malathion	N/A	0.01	N/A	0.212	N/A	0.130	0.190	0.402
Mercury	2.1	1.1	22.6	23.4	7.22	14.2	10.6	22.4
Methoxychlor	N/A	0.03	N/A	0.637	N/A	0.389	0.571	1.20
Mirex	N/A	0.001	N/A	0.0212	N/A	0.0130	0.0190	0.0402
Nickel	118	13.1	1267	278	406	170	249	527
Nonylphenol	7	1.7	75.2	36.1	24.1	22.0	32.3	68.4
Parathion (ethyl)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pentachlorophenol	15.1	9.6	162	204	51.9	124	76.2	161
Phenanthrene	7.7	4.6	82.7	97.7	26.5	59.6	38.9	82.3
Polychlorinated Biphenyls [PCBs]	10	0.03	107	0.637	34.4	0.389	0.571	1.20
Selenium	564	136	6058	2887	1939	1761	2589	5477
Silver	2	N/A	48.2	N/A	15.4	N/A	22.6	47.9
Toxaphene	0.21	0.0002	2.26	0.00425	0.722	0.00259	0.00380	0.00805
Tributyltin [TBT]	0.24	0.0074	2.58	0.157	0.825	0.0958	0.140	0.298
2,4,5 Trichlorophenol	259	12	2782	255	890	155	228	483
Zinc	92.7	84.2	1615	2899	517	1768	759	1606

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HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

<i>Parameter</i>	<i>Fish Only Criterion (µg/L)</i>	<i>WLAh (µg/L)</i>	<i>LTAh (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Acrylonitrile	115	3059	2844	4181	8846
Aldrin	1.147E-05	0.000305	0.000284	0.000417	0.000882
Anthracene	1317	35027	32575	47884	101307
Antimony	1071	28484	26490	38940	82384
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	N/A	N/A	N/A	N/A	N/A
Benzene	581	15452	14370	21124	44692
Benzidine	0.107	2.85	2.65	3.89	8.23
Benzo(a)anthracene	0.025	0.665	0.618	0.908	1.92
Benzo(a)pyrene	0.0025	0.0665	0.0618	0.0908	0.192
Bis(chloromethyl)ether	0.2745	7.30	6.79	9.98	21.1
Bis(2-chloroethyl)ether	42.83	1139	1059	1557	3294
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	7.55	201	187	274	580
Bromodichloromethane [Dichlorobromomethane]	275	7314	6802	9998	21153
Bromoform [Tribromomethane]	1060	28191	26218	38540	81538
Cadmium	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	46	1223	1138	1672	3538
Chlordane	0.0025	0.0665	0.0618	0.0908	0.192
Chlorobenzene	2737	72793	67697	99514	210537
Chlorodibromomethane [Dibromochloromethane]	183	4867	4526	6653	14076
Chloroform [Trichloromethane]	7697	204707	190378	279855	592075
Chromium (hexavalent)	502	13351	12416	18252	38615
Chrysene	2.52	67.0	62.3	91.6	193
Cresols [Methylphenols]	9301	247367	230051	338175	715459
Cyanide (free)	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.0532	0.0495	0.0727	0.153
4,4'-DDE	0.00013	0.00346	0.00322	0.00472	0.00999
4,4'-DDT	0.0004	0.0106	0.00989	0.0145	0.0307
2,4'-D	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	473	12580	11699	17197	36384
1,2-Dibromoethane [Ethylene Dibromide]	4.24	113	105	154	326
m-Dichlorobenzene [1,3-Dichlorobenzene]	595	15824	14717	21633	45769
o-Dichlorobenzene [1,2-Dichlorobenzene]	3299	87739	81598	119948	253768
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	2.24	59.6	55.4	81.4	172
1,2-Dichloroethane	364	9681	9003	13234	27999
1,1-Dichloroethylene [1,1-Dichloroethene]	55114	1465798	1363192	2003892	4239527
Dichloromethane [Methylene Chloride]	13333	354601	329779	484775	1025612
1,2-Dichloropropane	259	6888	6406	9416	19923
1,3-Dichloropropene [1,3-Dichloropropylene]	119	3165	2943	4326	9153
Dicofol [Kelthane]	0.30	7.98	7.42	10.9	23.0
Dieldrin	2.0E-05	0.000532	0.000495	0.000727	0.00153
2,4-Dimethylphenol	8436	224362	208656	306724	648921
Di-n-Butyl Phthalate	92.4	2457	2285	3359	7107
Dioxins/Furans [TCDD Equivalents]	7.97E-08	0.0000021	0.0000020	0.0000029	0.0000061

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<i>Parameter</i>	<i>Fish Only Criterion (µg/L)</i>	<i>WLAh (µg/L)</i>	<i>LTAh (µg/L)</i>	<i>Daily Avg. (µg/L)</i>	<i>Daily Max. (µg/L)</i>
Endrin	0.02	0.532	0.495	0.727	1.53
Epichlorohydrin	2013	53537	49790	73190	154845
Ethylbenzene	1867	49654	46178	67882	143615
Ethylene Glycol	1.68E+07	446808511	415531915	610831914	1292304255
Fluoride	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.0001	0.00266	0.00247	0.00363	0.00769
Heptachlor Epoxide	0.00029	0.00771	0.00717	0.0105	0.0223
Hexachlorobenzene	0.00068	0.0181	0.0168	0.0247	0.0523
Hexachlorobutadiene	0.22	5.85	5.44	7.99	16.9
Hexachlorocyclohexane (<i>alpha</i>)	0.0084	0.223	0.208	0.305	0.646
Hexachlorocyclohexane (<i>beta</i>)	0.26	6.91	6.43	9.45	19.9
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.341	9.07	8.43	12.3	26.2
Hexachlorocyclopentadiene	11.6	309	287	421	892
Hexachloroethane	2.33	62.0	57.6	84.7	179
Hexachlorophene	2.90	77.1	71.7	105	223
4,4'-Isopropylidenediphenol [Bisphenol A]	15982	425053	395299	581090	1229381
Lead	3.83	262	243	357	756
Mercury	0.0250	0.665	0.618	0.908	1.92
Methoxychlor	3.0	79.8	74.2	109	230
Methyl Ethyl Ketone	9.92E+05	26382979	24536170	36068170	76307489
Methyl <i>tert</i> -butyl ether [MTBE]	10482	278777	259262	381115	806305
Nickel	1140	30319	28197	41449	87692
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	1873	49814	46327	68100	144076
N-Nitrosodiethylamine	2.1	55.9	51.9	76.3	161
N-Nitroso-di- <i>n</i> -Butylamine	4.2	112	104	152	323
Pentachlorobenzene	0.355	9.44	8.78	12.9	27.3
Pentachlorophenol	0.29	7.71	7.17	10.5	22.3
Polychlorinated Biphenyls [PCBs]	6.4E-04	0.0170	0.0158	0.0232	0.0492
Pyridine	947	25186	23423	34432	72845
Selenium	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.24	6.38	5.94	8.72	18.4
1,1,2,2-Tetrachloroethane	26.35	701	652	958	2026
Tetrachloroethylene [Tetrachloroethylene]	280	7447	6926	10180	21538
Thallium	0.23	6.12	5.69	8.36	17.6
Toluene	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.293	0.272	0.399	0.846
2,4,5-TP [Silvex]	369	9814	9127	13416	28384
1,1,1-Trichloroethane	784354	20860479	19400245	28518360	60334762
1,1,2-Trichloroethane	166	4415	4106	6035	12769
Trichloroethylene [Trichloroethene]	71.9	1912	1778	2614	5530
2,4,5-Trichlorophenol	1867	49654	46178	67882	143615
TTHM [Sum of Total Trihalomethanes]	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	16.5	439	408	599	1269

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CALCULATE 70% AND 85% OF DAILY AVERAGE EFFLUENT LIMITATIONS:

Aquatic Life Parameter	70% of Daily Avg. (µg/L)	85% of Daily Avg. (µg/L)
Acrolein	N/A	N/A
Aldrin	4.59	5.58
Aluminum	N/A	N/A
Arsenic	526	639
Cadmium	116	141
Carbaryl	2168	2632
Chlordane	0.0533	0.0647
Chlorpyrifos	0.0389	0.0472
Chromium (trivalent)	N/A	N/A
Chromium (hexavalent)	661	802
Copper	53.7	65.3
Copper (oyster waters)	N/A	N/A
Cyanide (free)	19.8	24.0
4,4'-DDT	0.0133	0.0161
Demeton	1.33	1.61
Diazinon	2.89	3.51
Dicofol [Kelthane]	N/A	N/A
Dieldrin	0.0266	0.0323
Diuron	N/A	N/A
Endosulfan I (<i>alpha</i>)	0.119	0.145
Endosulfan II (<i>beta</i>)	0.119	0.145
Endosulfan sulfate	0.119	0.145
Endrin	0.0266	0.0323
Guthion [Azinphos Methyl]	0.133	0.161
Heptachlor	0.0533	0.0647
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	0.565	0.687
Lead	181	220
Malathion	0.133	0.161
Mercury	7.42	9.01
Methoxychlor	0.399	0.485
Mirex	0.0133	0.0161
Nickel	174	211
Nonylphenol	22.6	27.5
Parathion (ethyl)	N/A	N/A
Pentachlorophenol	53.4	64.8
Phenanthrene	27.2	33.0
Polychlorinated Biphenyls [PCBs]	0.399	0.485
Selenium	1812	2200
Silver	15.8	19.2
Toxaphene	0.00266	0.00323
Tributyltin [TBT]	0.0986	0.119
2,4,5 Trichlorophenol	159	194
Zinc	531	645

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Human Health Parameter	70% of Daily Avg. (µg/L)	85% of Daily Avg. (µg/L)
Acrylonitrile	2926	3554
Aldrin	0.000291	0.000354
Anthracene	33519	40702
Antimony	27258	33099
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	14787	17955
Benzidine	2.72	3.30
Benzo(a)anthracene	0.636	0.772
Benzo(a)pyrene	0.0636	0.0772
Bis(chloromethyl)ether	6.98	8.48
Bis(2-chloroethyl)ether	1090	1323
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	192	233
Bromodichloromethane [Dichlorobromomethane]	6999	8498
Bromoform [Tribromomethane]	26978	32759
Cadmium	N/A	N/A
Carbon Tetrachloride	1170	1421
Chlordane	0.0636	0.0772
Chlorobenzene	69660	84587
Chlorodibromomethane [Dibromochloromethane]	4657	5655
Chloroform [Trichloromethane]	195898	237877
Chromium (hexavalent)	12776	15514
Chrysene	64.1	77.8
Cresols [Methylphenols]	236722	287449
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0509	0.0618
4,4'-DDE	0.00330	0.00401
4,4'-DDT	0.0101	0.0123
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	12038	14618
1,2-Dibromoethane [Ethylene Dibromide]	107	131
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	15143	18388
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene]	83963	101956
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	57.0	69.2
1,2-Dichloroethane	9264	11249
1,1-Dichloroethylene [1,1-Dichloroethene]	1402724	1703308
Dichloromethane [Methylene Chloride]	339342	412058
1,2-Dichloropropane	6591	8004
1,3-Dichloropropene [1,3-Dichloropropylene]	3028	3677
Dicofol [Kelthane]	7.63	9.27
Dieldrin	0.000509	0.000618
2,4-Dimethylphenol	214707	260716
Di- <i>n</i> -Butyl Phthalate	2351	2855
Dioxins/Furans [TCDD Equivalents]	0.0000020	0.0000025
Endrin	0.509	0.618
Epichlorohydrin	51233	62212
Ethylbenzene	47517	57699
Ethylene Glycol	427582340	519207127
Fluoride	N/A	N/A

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Human Health Parameter	70% of Daily Avg. (µg/L)	85% of Daily Avg. (µg/L)
Heptachlor	0.00254	0.00309
Heptachlor Epoxide	0.00738	0.00896
Hexachlorobenzene	0.0173	0.0210
Hexachlorobutadiene	5.59	6.79
Hexachlorocyclohexane (<i>alpha</i>)	0.213	0.259
Hexachlorocyclohexane (<i>beta</i>)	6.61	8.03
Hexachlorocyclohexane (<i>gamma</i>) [Lindane]	8.67	10.5
Hexachlorocyclopentadiene	295	358
Hexachloroethane	59.3	72.0
Hexachlorophene	73.8	89.6
4,4'-Isopropylidenediphenol [Bisphenol A]	406763	493926
Lead	250	304
Mercury	0.636	0.772
Methoxychlor	76.3	92.7
Methyl Ethyl Ketone	25247719	30657944
Methyl <i>tert</i> -butyl ether [MTBE]	266780	323948
Nickel	29014	35231
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	47670	57885
N-Nitrosodiethylamine	53.4	64.9
N-Nitroso-di- <i>n</i> -Butylamine	106	129
Pentachlorobenzene	9.03	10.9
Pentachlorophenol	7.38	8.96
Polychlorinated Biphenyls [PCBs]	0.0162	0.0197
Pyridine	24102	29267
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	6.10	7.41
1,1,2,2-Tetrachloroethane	670	814
Tetrachloroethylene [Tetrachloroethylene]	7126	8653
Thallium	5.85	7.10
Toluene	N/A	N/A
Toxaphene	0.279	0.339
2,4,5-TP [Silvex]	9391	11404
1,1,1-Trichloroethane	19962852	24240606
1,1,2-Trichloroethane	4224	5130
Trichloroethylene [Trichloroethene]	1829	2222
2,4,5-Trichlorophenol	47517	57699
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	419	509

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
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Appendix C
pH Screening
Outfall 001

Calculation of pH of a mixture in seawater.
Based on the CO2SYS program (Lewis and Wallace, 1998)
<http://cdiac.esd.ornl.gov/oceans/co2rprt.html>

INPUT		
1. MIXING ZONE BOUNDARY CHARACTERISTICS		
Dilution factor at mixing zone boundary	18.5 ^A	18.5 ^A
Depth at plume trapping level (m)	2.000 ^B	2.000 ^B
2. BACKGROUND RECEIVING WATER CHARACTERISTICS		
Temperature (deg C):	20.00 ^C	25.00 ^C
pH:	6.60 ^D	6.60 ^D
Salinity (psu):	10.00 ^E	20.00 ^E
Total alkalinity (meq/L)	18.58 ^F	40.00 ^F
3. EFFLUENT CHARACTERISTICS		
Temperature (deg C):	30.00 ^G	20.00 ^G
pH:	6.00 ^H	9.00 ^H
Salinity (psu)	1.00 ^I	5.00 ^I
Total alkalinity (meq/L):	0.40 ^J	4.00 ^J
OUTPUT		
CONDITIONS AT THE MIXING ZONE BOUNDARY		
Temperature (deg C):	20.54	24.73
Salinity (psu)	9.51	19.19
Density (kg/m ³)	1005.31	1011.53
Alkalinity (mmol/kg-SW):	3.79	37.62
Total Inorganic Carbon (mmol/kg-SW):	4.85	45.37
pH at Mixing Zone Boundary:	6.59	6.61

Notes:

To convert from units of mgCaCO₃/L to meq/L divide by 50.044 g/meq
PSU refers to the Practical Salinity Scale (PSS) and is approximately equivalent to parts per thousand (ppt)

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Notes on Data Sources

- A Calculated from critical conditions memo: Effluent % at edge of MZ = 5.4%
- B Default value. Various depths tested.
- C Range of temperatures tested (5 to 35 degrees C).
- D Ambient pH for Segment 0601 from 2010 IPs
- E Range of salinities tested (2 to 30 psu).
- F Range tested.
- G Range of temperatures tested (5 to 35 degrees C).
- H Proposed permit limit. Sequentially modified until predicted pH met segment criteria (6.0 to 8.5).
- I Minimum salinity assumed because discharge is freshwater. However, values up to 5 ppt tested.
- J For high pH scenario, calculated and tested a range of values. For low pH scenarios, used default of 20 mg/L CaCO_3 = 0.40 meq/L

FINAL DETERMINATION

Effluent pH limitations [6.0 su (min) & 9.0 su (max)] meet segment criteria at the edge of the mixing zone.

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Appendix D
Comparison of Technology-Based and Water Quality-Based

The following table is a summary of technology based effluent limitations calculated/assessed in the draft permit (Tech Based) and calculated/assessed water quality-based effluent limitations (WQ Based).

OUTFALL 001 (Phase 1)

<u>Parameter</u>	WQ Based		Tech Based	
	Dly Avg	Dly Max	Dly Avg	Dly Max
Flow	N/A	N/A	Rpt (MGD)	Rpt (MGD)
Total Suspended Solids	N/A	N/A	N/A	Rpt (mg/L)
Chemical Oxygen Demand	N/A	N/A	N/A	200 mg/L
Oil and Grease	N/A	N/A	N/A	15 mg/L
pH	6.0 SU (min)	9.0 SU	N/A	N/A

OUTFALL 001 Phase 2)

<u>Parameter</u>	WQ Based		Tech Based	
	Dly Avg	Dly Max	Dly Avg	Dly Max
Flow	N/A	N/A	2.42 MGD	4.18 MGD
Carbonaceous Biochemical Oxygen Demand (5-day)	Rpt (lbs/day)	Rpt (lbs/day)	N/A	N/A
Ammonia (as Nitrogen)	Rpt (lbs/day)	Rpt (lbs/day)	N/A	N/A
Chemical Oxygen Demand	N/A	N/A	2,134 lbs/day	4,110 lbs/day
Total Suspended Solids	N/A	N/A	451 lbs/day	1,280 lbs/day
Oil and Grease	N/A	N/A	223 lbs/day	294 lbs/day
Temperature	Rpt (°F)	Rpt (°F)	N/A	N/A
pH	6.0 SU (min)	9.0 SU	N/A	N/A

OUTFALL 101 (Phase 2a)

<u>Parameter</u>	WQ Based		Tech Based	
	Dly Avg	Dly Max	Dly Avg	Dly Max
Flow	N/A	N/A	0.535 MGD	1.37 MGD
Carbonaceous Biochemical Oxygen Demand (5-day)	99.7 lbs/day	255 lbs/day	N/A	N/A
Ammonia (as Nitrogen)	16.6 lbs/day	43 lbs/day	N/A	N/A

OUTFALL 101 (Phase 2b)

<u>Parameter</u>	WQ Based		Tech Based	
	Dly Avg	Dly Max	Dly Avg	Dly Max
Flow	N/A	N/A	0.535 MGD	1.37 MGD
Carbonaceous Biochemical Oxygen Demand (5-day)	129.6 lbs/day	332 lbs/day	N/A	N/A
Ammonia (as Nitrogen)	21.6 lbs/day	55 lbs/day	N/A	N/A

STATEMENT OF BASIS / TECHNICAL SUMMARY AND
EXECUTIVE DIRECTOR'S PRELIMINARY DECISION
TPDES Permit No. WQ0005439000

OUTFALLS 002-009 (Interim Phase)

<u>Parameter</u>	WQ Based		Tech Based	
	Dly Avg	Dly Max	Dly Avg	Dly Max
Flow	N/A	N/A	Report (MGD)	Report (MGD)
Chemical Oxygen Demand	N/A	N/A	N/A	200 mg/L
Oil and Grease	N/A	N/A	N/A	15 mg/L
pH	6.0 SU (min)	9.0 SU	N/A	N/A

OUTFALLS 002-009 (Final Phase)

<u>Parameter</u>	WQ Based		Tech Based	
	Dly Avg	Dly Max	Dly Avg	Dly Max
Flow	N/A	N/A	Report (MGD)	Report (MGD)
Chemical Oxygen Demand	N/A	N/A	N/A	200 mg/L
Oil and Grease	N/A	N/A	N/A	15 mg/L
pH	6.0 SU (min)	9.0 SU	N/A	N/A