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 *
5. Draft permit *
6. Technical summary or fact sheet *

* **NOTE:** This application was declared Administratively Complete before June 1, 2024. The application materials, draft permit, and technical summary or fact sheet are available for review at the Public Viewing Location provided in the NAPD.

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 **
5. Proyecto de permiso **
6. Resumen técnico u hoja de datos **

** **NOTA:** Esta solicitud se declaró administrativamente completa antes del 1 de junio de 2024. Los materiales de la solicitud, el proyecto de permiso, y los resumen técnico u hoja de datos están disponibles para revisión en la ubicación de consulta pública que se indica en el NAPD.

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

Oxy Vinyls, LP (CN600129126) operates Pasadena PVC Plant (RN102518065), a polyvinyl chloride resin manufacturing facility. The facility is located at 4403 Pasadena Freeway, in Pasadena, Harris County, Texas 77503. This application is for a renewal to discharge 6,400,000 gallons per day of wastewater effluent. Wastewater effluent is made up of vinyl chloride monomer (VCM) which is mixed with water, suspending agents, and initiators in reactors where polymerization occurs under design conditions. The resulting slurry of polymer (PVC resin) and water is stripped of unreacted VCM. Water that is subsequently separated from PVC resin in a centrifuge is called centrifuge effluent wastewater (CEW). Washdowns of reactors yield reactor effluent wastewater (REW). The REW and CEW waste streams are sent to the biological treatment system. The facility generates solutions preparation wastewater which consists primarily of wastewater from drains on the initiator charge pots and rinsate from raw material containers and drums. Other sources of wastewater from the facility include utility wastewater (including cooling tower blowdown, boiler blowdown, washdown water, condensate, and demineralized regeneration water), sanitary wastewater, and stormwater.

Discharges from the facility are subject to federal effluent limitation guidelines at 40 CFR Part 414. The pollutants expected from these discharges based on 40 CFR Part 414 are: total suspended solids, oil and grease, enterococci, total copper, total zinc, total nickel, temperature, pH, and organic compounds. Wastewater from Oxy Vinyl's process flows, BASF process flows, Aurora Plastics cooling tower blowdown and treated sanitary wastewater, and Houston Ammonia Terminal stormwater and sanitary wastewater are treated by biological wastewater treatment process that consists of pH control via one above ground tank, equalization via six ponds, aeration (activated sludge) via three above ground tanks, clarification through three above ground tanks, multi-media filtration via four above ground tanks, and an anaerobic digestion lagoon. Sanitary wastewater is treated separately from the industrial wastewater through activated sludge, clarification, and disinfection. After treatment, sanitary wastewater is routed to the biological wastewater treatment plant. Effluent from the biological treatment flows through a Parshall flume to a 24-inch pipe to a junction box. The junction box discharges via a 30-inch pipe to Outfall 001 that flows into the Houston Ship Channel Tidal Segment 1006, San Jacinto River Basin.

El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo exige el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no es federal. representaciones ejecutables de la solicitud de permiso .

Oxy Vinyls, LP(CN600129126) opera la Pasadena PVC Plant (RN102518065), a planta de fabricación de resina de cloruro de polivinilo.. La instalación isubicada at 4403 Pasadena Freeway en Pasadena el Harris condado de Texas 77503.Esta solicitud es para una renovación para descargar 6,400,000 galones por día de efluentes de aguas residuales. El efluente de aguas residuales está compuesto de monómero de cloruro de vinilo (VCM) que se mezcla con agua, agentes de suspensión e iniciadores en reactores donde se produce la polimerización en las condiciones de diseño. A la suspensión resultante de polímero (resina de PVC) y agua se le quita el VCM que no ha reaccionado. El agua que posteriormente se separa de la resina de PVC en una centrífuga se denomina agua residual efluente de centrífuga (DEC). Los lavados de reactores producen aguas residuales efluentes de reactores (REW). Los flujos de residuos de REW y DEC se envían al sistema de tratamiento biológico. La instalación genera aguas residuales de preparación de soluciones que consisten principalmente en aguas residuales de los drenajes de los recipientes de carga del iniciador y del enjuague de los contenedores y tambores de materia prima. Otras fuentes de aguas residuales de la instalación incluyen aguas residuales de servicios públicos (incluidas purgas de torres de enfriamiento, purgas de calderas, agua de lavado, condensado y agua de regeneración desmineralizada), aguas residuales sanitarias y aguas pluviales.

Las descargas de la instalación están sujetas a pautas federales de limitación de efluentes en 40 CFR Parte 414. Los contaminantes esperados de estas descargas con base en 40 CFR Parte 414 son: sólidos suspendidos totales, aceites y grasas, enterococos, cobre total, zinc total, níquel total, temperatura, pH y compuestos orgánicos. Aguas residuales de los flujos de proceso de Oxy Vinyl, flujos de proceso de BASF, purga de torres de enfriamiento de Aurora Plastics y aguas residuales sanitarias tratadas, y aguas pluviales y aguas residuales sanitarias de la Terminal de Amoníaco de Houston son tratado mediante un proceso de tratamiento biológico de aguas residuales que consiste en control del pH a través de un tanque sobre el suelo, ecualización a través de seis estanques, aireación (lodos activados) a través de tres tanques sobre el suelo, clarificación a través de tres tanques sobre el suelo, filtración multimedia a través de cuatro tanques sobre el suelo, y una laguna de digestión anaeróbica. Las aguas residuales sanitarias se tratan por separado de las aguas residuales industriales mediante lodos activados, clarificación y desinfección. Después del tratamiento, las aguas residuales sanitarias se conducen a la planta de tratamiento biológico de aguas residuales. El efluente del tratamiento biológico fluye a través de un canal Parshall hasta una tubería de 24 pulgadas hasta una caja de conexiones. La caja de conexiones descarga a través de una tubería de 30 pulgadas al emisario 001 que desemboca en el segmento de marea 1006 del canal de navegación de Houston, cuenca del río San Jacinto.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

PERMIT NO. WQ0000002000

APPLICATION. Oxy Vinyls, LP, P.O. Box 849, Pasadena, Texas 77501, which owns Pasadena PVC, a facility that manufactures polyvinyl chloride resin, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000002000 (EPA I.D. No. TX0006335) to authorize the discharge of treated wastewater and stormwater at a volume not to exceed a daily average flow of 4,000,000 gallons per day. The facility is located at 4403 Pasadena Freeway, near the city of Pasadena, in Harris County, Texas 77503. The discharge route is from the plant site directly to Houston Ship Channel Tidal. TCEQ received this application on April 16, 2024. The permit application will be available for viewing and copying at Deer Park Public Library, 3009 Center Street, Deer Park, in Harris 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=-95.150555,29.728888&level=18

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. TCEQ may act on an application to renew a permit for discharge of wastewater without providing an opportunity for a contested case hearing if certain criteria are met.**

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. All public comments and requests must be submitted either electronically at **https://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 Oxy Vinyls, LP at the address stated above or by calling Mr. Zachary Oliver, Environmental Engineer, at 281-884-4047.

Issuance Date: May 15, 2024

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
RENOVACION

PERMISO NO. WQ0000002000

SOLICITUD. Oxy Vinyls, LP, P.O. Box 849, Pasadena, Texas 77501, que posee una instalación que fabrica resina de cloruro de polivinilo, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No. WQ0000002000 (EPA I.D. No. TX0006335) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas y aguas pluviales en un volumen que no sobrepasa un flujo promedio diario de 4,000,000 galones por día. La instalación está ubicada en el 4403 Pasadena Freeway, cerca de la ciudad de Pasadena en el Condado de Harris, Texas 77503. La ruta de descarga es del sitio de la planta directamente a Houston Ship Channel Tidal. La TCEQ recibió esta solicitud el 16 de abril de 2024. La solicitud para el permiso estará disponible para leerla y copiarla en Biblioteca Pública de Deer Park, 3009 Center Street, Deer Park en el Condado de Harris, 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 de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.
https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.150555,29.728888&level=18

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. Si ciertos criterios se cumplen, la TCEQ puede actuar sobre una solicitud para renovar un permiso sin proveer una oportunidad de una audiencia administrativa de lo contencioso.

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. Ademas, puede pedir que la TCEQ ponga su nombre en una or mas de las listas 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 especifico. Si desea que se agrega su nombre en una de las listas designe cual lista(s) y envia 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 presentadas 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 información adicional de Oxy Vinyls, LP a la dirección indicada arriba o llamando al Sr. Zachary Oliver, Ingeniero Ambiental al 281-884-4047.

Fecha de emisión 15 de mayo de 2024

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

RENEWAL

PERMIT NO. WQ0000002000

APPLICATION AND PRELIMINARY DECISION. Oxy Vinyls, LP, P.O. Box 849, Pasadena, Texas 77501, which operates the Pasadena PVC Plant, a facility that manufactures polyvinyl chloride resin and is authorized to treat and discharge wastes from off-site facilities that manufacture plastic materials and industrial organic chemicals and that store anhydrous ammonia, has applied to the Texas Commission on Environmental Quality (TCEQ) for a renewal of Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000002000, which authorizes the discharge of process wastewater (including process wastewater from the adjacent BASF facility), utility wastewater (including utility wastewater from the adjacent BASF, Houston Ammonia Terminal, and Aurora Plastics facilities), domestic wastewater, and stormwater (including stormwater from the adjacent BASF, Houston Ammonia Terminal, and Aurora Plastics facilities) at a daily average flow not to exceed 4,000,000 gallons per day via Outfall 001. The TCEQ received this application on April 16, 2024.

The facility is located at 4403 Pasadena Freeway, near the City of Pasadena, Harris County, Texas 77503. 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=-95.150555,29.728888&level=18.

The effluent is discharged directly to the Houston Ship Channel Tidal in Segment No. 1006 of the San Jacinto River Basin. The designated uses for Segment No. 1006 are navigation and industrial water supply.

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 Deer Park Public Library, 3009 Center Street, Deer Park, in Harris County, Texas.

ALTERNATIVE LANGUAGE NOTICE. Alternative language notice in Spanish is available at https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. El aviso de idioma alternativo en español está disponible en https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications.

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. TCEQ may act on an application to renew a permit for discharge of wastewater without providing an opportunity for a contested case hearing if certain criteria are met.**

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 Oxy Vinyls, LP at the address stated above or by calling Mr. Zachary Oliver, Environmental Engineer, at 281-884-4047.

Issued: June 16, 2025

Comisión De Calidad Ambiental Del Estado De Texas

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

RENOVACIÓN

PERMISO NO. WQ0000002000

SOLICITUD Y DECISIÓN PRELIMINAR. Oxy Vinyls, LP, P.O. Box 849, Pasadena, Texas 77501 ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) una renovación para autorizar la Planta de PVC de Pasadena, una instalación que fabrica resina de cloruro de polivinilo y está autorizada para tratar y descargar desechos de instalaciones fuera del sitio que fabrican materiales plásticos y productos químicos orgánicos industriales y que almacenan amoníaco anhidro. Ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) la renovación del Permiso del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) No. WQ0000002000, que autoriza la descarga de aguas residuales de proceso (incluyendo aguas residuales de proceso de la instalación adyacente de BASF), aguas residuales de servicios públicos (incluyendo aguas residuales de servicios públicos de las instalaciones adyacentes de BASF, Houston Ammonia Terminal y Aurora Plastics), aguas residuales domésticas y aguas pluviales (incluyendo aguas pluviales de las instalaciones adyacentes de BASF, Houston Ammonia Terminal y Aurora Plastics) con un flujo promedio diario que no exceda los 4,000,000 galones por día a través del punto de descarga 001. La TCEQ recibió esta solicitud el 16 de abril de 2024.

La planta está ubicada en 4403 Pasadena Freeway, cerca de la ciudad de Pasadena, en el Condado de Harris, Texas 77503. El efluente tratado es descargado al canal de Navegación de Houston Tidal en el Segmento No. 1006 de la Cuenca del Río San Jacinto. Los usos designados para el Segmento No. 1006 son navegación y suministro de agua industrial.

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 Biblioteca Pública de Deer Park, 3009 Center Street, Deer Park, en el Condado de Harris, Texas. La solicitud (cualquier actualización y aviso inclusive) está disponible electrónicamente en la siguiente página web: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud. https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.150555,29.728888&level=18

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-notices.

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 PARA UNA AUDIENCIA DE CASO IMPUGNADO. Después de la fecha límite para los comentarios públicos, el director ejecutivo considerará los comentarios y preparará una respuesta a todos los comentarios públicos relevantes y materiales, o significativos. **La respuesta a los comentarios, junto con la decisión del director ejecutivo sobre la solicitud, se enviará por correo a todos los que enviaron comentarios públicos o que solicitaron estar en una lista de correo para esta solicitud. Si se reciben comentarios, el correo también proporcionará instrucciones para solicitar una audiencia de caso impugnado o reconsiderar la decisión del director ejecutivo.** Una audiencia de caso disputado es un procedimiento legal similar a un juicio civil en un tribunal de distrito estatal.

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.

La Comisión otorgará solamente una audiencia administrativa de lo contencioso sobre los hechos reales disputados del caso que son pertinentes y esenciales para la decisión de la Comisión sobre la solicitud. Además, la Comisión sólo otorgará una audiencia administrativa de lo contencioso sobre los asuntos que fueron presentados antes del plazo de vencimiento y que no fueron retirados

posteriormente. **Si ciertos criterios se cumplen, la TCEQ puede actuar sobre una solicitud para renovar un permiso para descargar aguas residuales sin proveer una oportunidad de una audiencia administrativa de lo contencioso.**

ACCIÓN DEL DIRECTOR EJECUTIVO. El Director Ejecutivo puede emitir la aprobación final de la solicitud a menos que se presente una solicitud de audiencia de caso impugnado oportunamente o una solicitud de reconsideración. Si se presenta una solicitud de audiencia oportuna o una solicitud de reconsideración, el Director Ejecutivo no emitirá la aprobación final del permiso y enviará la solicitud y la petición a los Comisionados de la TCEQ para su consideración en una reunión programada de la Comisión.

LISTA DE CORREO. Si envía comentarios públicos, una solicitud de una audiencia de caso impugnado o una reconsideración de la decisión del Director Ejecutivo, se le agregará a la lista de correo para que esta solicitud reciba avisos públicos futuros enviadas por correo por la Oficina del Secretario Oficial. Además, puede solicitar ser colocado en: (1) la lista de correo permanente para un nombre de solicitante específico y número de permiso; y/o (2) la lista de correo para un condado específico. Para ser colocado en la lista de correo permanente y / o del condado, especifique claramente qué lista(s) y envíe su solicitud a la Oficina del Secretario Oficial de la TCEQ a la dirección a continuación.

Todos los comentarios públicos escritos y las solicitudes de reunión pública deben enviarse a la Office of the Chief Clerk, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 o electrónicamente a https://www.tceq.texas.gov/goto/comment/ dentro de los 30 días a partir de la fecha de publicación de este aviso en el periódico.

INFORMACIÓN DISPONIBLE EN LÍNEA. Para obtener detalles sobre el estado de la solicitud, visite la Base de Datos Integrada de los Comisionados en https://www.tceq.texas.gov/goto/cid/. Busque en la base de datos utilizando el número de permiso para esta solicitud, que se proporciona en la parte superior de este aviso.

CONTACTOS E INFORMACIÓN DE LA AGENCIA. Los comentarios y solicitudes públicas deben enviarse electrónicamente a https://www.tceq.texas.gov/goto/comment/, 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 al 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 https://www.tceq.texas.gov/agency/decisions/participation/permitting-participation. Si desea información en español, puede llamar al 1-800-687-4040.

También se puede obtener información adicional del Oxy Vinyls, LP a la dirección indicada arriba o llamando a Sr. Zachary Oliver al 281-884-4047.

Fecha de emisión: 16 de junio de 2025

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
P.O. Box 13087
Austin, Texas 78711-3087

TPDES PERMIT NO.
WQ0000002000
[For TCEQ office use only -
EPA I.D. No. TX0006335]

This renewal replaces TPDES Permit No. WQ0000002000, issued on October 21, 2019.

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

Oxy Vinyls, LP

whose mailing address is

P.O. Box 849
Pasadena, Texas 77501

is authorized to treat and discharge wastes from the Pasadena PVC Plant, which manufactures polyvinyl chloride resin, and treats and discharges waste from off-site facilities that manufacture plastic materials and industrial organic chemicals and that store anhydrous ammonia (SIC 2821 and 2869)

located at 4403 Pasadena Freeway, near the City of Pasadena, in Harris County, Texas 77503

directly to the Houston Ship Channel Tidal in Segment No. 1006 of the San Jacinto River 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

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge process wastewater (including process wastewater from the adjacent BASF facility), utility wastewater [1] (including utility wastewater from the adjacent BASF, Houston Ammonia Terminal, and Aurora Plastics facilities), domestic wastewater, and stormwater (including stormwater from the adjacent BASF, Houston Ammonia Terminal, and Aurora Plastics facilities) subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 4.0 million gallons per day (MGD). The daily maximum flow shall not exceed 6.4 MGD

Effluent Characteristics	Discharge Limitations					Minimum Self-Monitoring Requirements	
	Daily Average		Daily Maximum		Single Grab	Report Daily Average and Daily Maximum	
	lbs/day	mg/L	lbs/day	mg/L	mg/L	Measurement Frequency	Sample Type
Flow	4.0 MGD		6.4 MGD		N/A	Continuous	Record
Temperature	N/A		105 °F		105 °F	Continuous [2]	Record
Biochemical Oxygen Demand (5-day)	500.4	N/A	1,000.8	N/A	60	1/week	Composite
Ammonia Nitrogen	100.1	N/A	200.2	N/A	12	1/week	Composite
Total Suspended Solids	733	N/A	1,465	N/A	90	1/week	Composite
Chemical Oxygen Demand	2,149	N/A	4,235	N/A	255	1/week	Composite
Oil and Grease	225	N/A	337	N/A	10	1/week	Grab
Enterococci	35 [3, 4]		104 [3]		104 [4]	1/week	Grab
Cyanide, Free [5]	Report	Report	Report	Report	N/A	1/week	Composite
Cyanide, Free [6]	0.293	0.00878	0.618	0.0185	0.037	1/week	Composite
Copper, Total	0.7288	0.029	1.542	0.062	0.12	1/month	Composite
Zinc, Total	6.63	0.240	14.02	0.509	1.00	1/month	Composite

[1] Utility wastewater includes, but is not limited to, cooling tower blowdown, boiler blowdown, wash down water, condensate, demineralized regeneration water, and hydrostatic test water.

[2] See Other Requirement No. 6.

[3] Colony forming units (cfu) or most probable number (MPN)/100 mL

[4] Daily average must be calculated as geometric mean.

[5] Beginning upon permit issuance and lasting three (3) years from the date of permit issuance. See Other Requirement Nos. 11 and 12.

[6] Beginning three (3) years from the date of permit issuance and lasting until the date of permit expiration. See Other Requirement No. 11.

1. continued.

Effluent Characteristics	Discharge Limitations					Minimum Self-Monitoring Requirements	
	Daily Average		Daily Maximum		Single Grab	Report Daily Average and Daily Maximum	
	lbs/day	mg/L	lbs/day	mg/L	mg/L	Measurement Frequency	Sample Type
Nickel, Total	3.702	N/A	7.832	N/A	0.47	1/year	Composite
Acenaphthene	0.40	N/A	1.07	N/A	0.048	1/year	Composite
Acenaphthylene	0.40	N/A	1.07	N/A	0.048	1/year	Composite
Acrylonitrile	1.74	N/A	4.38	N/A	0.198	1/year	Composite
Anthracene	0.40	N/A	1.07	N/A	0.048	1/year	Composite
Benzene	0.67	N/A	2.46	N/A	0.111	1/year	Composite
Benzo(a)anthracene	0.029	0.000854	0.060	0.0018	0.005	1/year	Composite
3,4-Benzofluoranthene	0.418	N/A	1.10	N/A	0.050	1/year	Composite
Benzo(k)fluoranthene	0.40	N/A	1.07	N/A	0.048	1/year	Composite
Benzo(a)pyrene	0.00285	0.0000854	0.00601	0.00018	0.005	1/year	Composite
Bis(2-ethylhexyl) phthalate	1.86	N/A	5.05	N/A	0.228	1/year	Composite
Carbon Tetrachloride	0.327	N/A	0.69	N/A	0.031	1/year	Composite
Chlorobenzene	0.27	N/A	0.509	N/A	0.023	1/year	Composite
Chloroform	0.38	N/A	0.83	N/A	0.038	1/year	Composite
2-Chlorophenol	0.56	N/A	1.77	N/A	0.080	1/year	Composite
Chrysene	0.40	N/A	1.07	N/A	0.048	1/year	Composite
Di-n-butyl Phthalate	0.49	N/A	1.03	N/A	0.047	1/year	Composite
1,2-Dichlorobenzene	1.39	N/A	2.95	N/A	0.133	1/year	Composite
1,3-Dichlorobenzene	0.56	N/A	0.80	N/A	0.036	1/year	Composite
1,4-Dichlorobenzene	0.27	N/A	0.509	N/A	0.023	1/year	Composite
1,1-Dichloroethane	0.40	N/A	1.07	N/A	0.048	1/year	Composite
1,2-Dichloroethane	1.23	N/A	3.82	N/A	0.173	1/year	Composite
1,1-Dichloroethylene	0.29	N/A	0.45	N/A	0.020	1/year	Composite
1,2-trans-Dichloroethylene	0.38	N/A	0.98	N/A	0.044	1/year	Composite
2,4-Dichlorophenol	0.709	N/A	2.03	N/A	0.092	1/year	Composite
1,2-Dichloropropane	2.77	N/A	4.16	N/A	0.188	1/year	Composite
1,3-Dichloropropylene	0.52	N/A	0.80	N/A	0.036	1/year	Composite
Diethyl Phthalate	1.46	N/A	3.67	N/A	0.166	1/year	Composite
2,4-Dimethylphenol	0.327	N/A	0.65	N/A	0.029	1/year	Composite
Dimethyl Phthalate	0.34	N/A	0.85	N/A	0.038	1/year	Composite
4,6-Dinitro-o-cresol	1.41	N/A	5.01	N/A	0.226	1/year	Composite

1. continued.

Effluent Characteristics	Discharge Limitations					Minimum Self-Monitoring Requirements	
	Daily Average		Daily Maximum		Single Grab	Report Daily Average and Daily Maximum	
	lbs/day	mg/L	lbs/day	mg/L	mg/L	Measurement Frequency	Sample Type
2,4-Dinitrophenol	1.28	N/A	2.22	N/A	0.101	1/year	Composite
2,4-Dinitrotoluene	2.04	N/A	5.15	N/A	0.233	1/year	Composite
2,6-Dinitrotoluene	4.61	N/A	11.59	N/A	0.524	1/year	Composite
Ethylbenzene	0.58	N/A	1.95	N/A	0.088	1/year	Composite
Fluoranthene	0.45	N/A	1.23	N/A	0.056	1/year	Composite
Fluorene	0.40	N/A	1.07	N/A	0.048	1/year	Composite
Hexachlorobenzene	0.000774	0.0000232	0.00164	0.0000491	0.005	1/year	Composite
Hexachlorobutadiene	0.251	0.00751	0.531	0.0159	0.032	1/year	Composite
Hexachloroethane	0.38	N/A	0.98	N/A	0.044	1/year	Composite
Methyl Chloride	1.56	N/A	3.44	N/A	0.155	1/year	Composite
Methylene Chloride	0.72	N/A	1.61	N/A	0.073	1/year	Composite
Naphthalene	0.40	N/A	1.07	N/A	0.048	1/year	Composite
Nitrobenzene	0.49	N/A	1.23	N/A	0.056	1/year	Composite
2-Nitrophenol	0.74	N/A	1.25	N/A	0.056	1/year	Composite
4-Nitrophenol	1.30	N/A	2.24	N/A	0.101	1/year	Composite
Phenanthrene	0.40	0.012	0.851	0.0255	0.051	1/year	Composite
Phenol	0.27	N/A	0.47	N/A	0.021	1/year	Composite
Pyrene	0.45	N/A	1.21	N/A	0.055	1/year	Composite
Tetrachloroethylene	0.40	N/A	1.01	N/A	0.046	1/year	Composite
Toluene	0.47	N/A	1.45	N/A	0.065	1/year	Composite
1,2,4-Trichlorobenzene	1.23	N/A	2.53	N/A	0.115	1/year	Composite
1,1,1-Trichloroethane	0.38	N/A	0.98	N/A	0.044	1/year	Composite
1,1,2-Trichloroethane	0.38	N/A	0.98	N/A	0.044	1/year	Composite
Trichloroethylene	0.38	N/A	0.98	N/A	0.044	1/year	Composite
Vinyl Chloride	1.00	N/A	1.33	N/A	0.219	1/year	Composite

2. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored continuously and recorded. See Other Requirement No. 5.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. All domestic sewage shall be given complete treatment (both primary and secondary) and chlorinated sufficiently to maintain at least a 1.0 mg/L chlorine residual after at least 20 minutes contact time (based on peak flow) and shall be monitored 1/month by grab sample, prior to mixing with any other wastewaters.
5. Effluent monitoring samples must be taken at the following location unless otherwise specified: At Outfall 001, downstream of the second Parshall flume, prior to the junction of the 24-inch diameter pipe and 30-inch diameter pipe that discharges to the Houston Ship Channel Tidal. Effluent monitoring samples for Enterococci must be taken at the exit of the chlorine contact chamber (immediately after the final disinfection unit).

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 nth 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 (Flow, MGD × Concentration, mg/L × 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 12 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 12 and Compliance Monitoring Team (MC 224):

Pollutant	MAL[1] (mg/L)
Copper (Total)	0.002
Cyanide (Available)	0.010
Nickel (Total)	0.002
Zinc (Total)	0.005

40 CFR PART 414, SUBPART I (end-of-pipe biological treatment)

Pollutant	MAL (mg/L)
Acenaphthene	0.010
Acenaphthylene	0.010
Acrylonitrile	0.050
Anthracene	0.010
Benzene	0.010
Benzo(*a*)anthracene	0.005
3,4-Benzofluoranthene (Benzo(*b*)fluoranthene)	0.010
Benzo(*k*)fluoranthene	0.005
Benzo(*a*)pyrene	0.005
Bis(2-Ethylhexyl) Phthalate	0.010
Carbon Tetrachloride	0.002
Chlorobenzene	0.010
Chloroethane	0.050
Chloroform	0.010
2-Chlorophenol	0.010
Chrysene	0.005
Di-n-Butyl Phthalate	0.010
1,2-Dichlorobenzene	0.010
1,3-Dichlorobenzene	0.010
1,4-Dichlorobenzene	0.010
1,1-Dichloroethane	0.010
1,2-Dichloroethane	0.010
1,1-Dichloroethylene	0.010
1,2-trans-Dichloroethylene	0.010
2,4-Dichlorophenol	0.010
1,2-Dichloropropane	0.010
1,3-Dichloropropylene	0.010
Diethyl Phthalate	0.010
2,4-Dimethylphenol	0.010
Dimethyl Phthalate	0.010

[1] Minimum analytical level.

40 CFR PART 414, SUBPART I (end-of-pipe biological treatment)	
Pollutant	**MAL (mg/L)**
4,6-Dinitro-o-Cresol	0.050
2,4-Dinitrophenol	0.050
2,4-Dinitrotoluene	0.010
2,6-Dinitrotoluene	0.010
Ethylbenzene	0.010
Fluoranthene	0.010
Fluorene	0.010
Hexachlorobenzene	0.005
Hexachlorobutadiene	0.010
Hexachloroethane	0.020
Methylene Chloride	0.020
Methyl Chloride	0.050
Naphthalene	0.010
Nitrobenzene	0.010
2-Nitrophenol	0.020
4-Nitrophenol	0.050
Phenanthrene	0.010
Phenol	0.010
Pyrene	0.010
Tetrachloroethylene	0.010
Toluene	0.010
1,2,4-Trichlorobenzene	0.010
1,1,1-Trichloroethane	0.010
1,1,2-Trichloroethane	0.010
Trichloroethylene	0.010
Vinyl Chloride	0.010

Test methods used must be sensitive enough to demonstrate compliance with the permit effluent limitations. If an effluent limit for a pollutant is less than the MAL, then the test method for that pollutant must be sensitive enough to demonstrate compliance at the MAL. Permit compliance/noncompliance determinations will be based on the effluent limitations contained in this permit, with consideration given to the MAL for the pollutants specified above.

When an analysis of an effluent sample for a pollutant listed above indicates no detectable levels above the MAL and the test method detection level is as sensitive as the specified MAL, a value of zero shall be used for that measurement when making calculations for the self-reporting form. This applies to determinations of daily maximum concentration, calculations of loading and daily averages, and other reportable results.

When a reported value is zero based on this MAL provision, the permittee shall submit the following statement with the self-reporting form either as a separate attachment to the form or as a statement in the comments section of the form:

> "The reported value(s) of zero for [list pollutant(s)] on the self-reporting form for [monitoring period date range] is based on the following conditions: (1) the analytical method used had a method detection level as sensitive as the MAL specified in the permit, and (2) the analytical results contained no detectable levels above the specified MAL."

When an analysis of an effluent sample for a pollutant indicates no detectable levels and the test method detection level is not as sensitive as the MAL specified in the permit, or an MAL is not

specified in the permit for that pollutant, the level of detection achieved shall be used for that measurement when making calculations for the self-reporting form. A zero may not be used.

3. COOLING WATER INTAKE STRUCTURE REQUIREMENTS

When in operation, the cooling water system must be operated and maintained as represented in the application for this permit. The permittee shall provide written notification to the TCEQ Industrial Permits Team (MC 148) and the Region 12 Office of any changes in the design, operation, or maintenance of the cooling water system from that described in the application or 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.

4. The mixing zone for Outfall 001 is defined as a volume of water within a radius of 200 feet extending over the receiving water from the point where the discharge reaches the Houston Ship Channel. Chronic toxic criteria apply at the edge of the mixing zone.

5. The permittee shall maintain the pH within the range specified on page 2c of this permit. Excursions from the range are permitted. An excursion is an unintentional and temporary incident in which the pH value of the wastewater exceeds the range set forth on page 2c. A pH excursion is not a violation and a non-compliance report is not required for pH excursions provided:

   A. The excursion does not exceed the range of 5-11 standard pH units;
   B. The individual excursion does not exceed 60 minutes; and
   C. The sum of all excursions does not exceed 7 hours and 26 minutes in any calendar month.

6. For continuous temperature measurements taken in accordance with Page 2 of this permit, the reporting requirements in "MONITORING AND REPORTING REQUIREMENTS," Item No. 7 on Page No. 6 of this permit may be omitted if the continuously recorded temperature does not exceed the Daily Maximum temperature for more than 30 minutes for any single exceedance and not more than a total of 7 hours and 26 minutes on any calendar month.

7. POND REQUIREMENTS

A wastewater pond must comply with the following requirements. A wastewater pond (or lagoon) is an earthen structure used to evaporate, hold, store, or treat water that contains a *waste* or *pollutant* or that would cause *pollution* upon *discharge* as those terms are defined in Texas Water Code § 26.001, but does not include a pond that contains only stormwater.

   A. A wastewater pond **subject to 40 CFR Part 257, Subpart D** (related to coal combustion residuals) must comply with those requirements in lieu of the requirements in B through G of POND REQUIREMENTS.

   B. An **existing** wastewater pond must be maintained to meet or exceed the original approved design and liner requirements; or, in the absence of original approved requirements, must be maintained to prevent unauthorized discharges of wastewater into or adjacent to water in the state. The permittee shall maintain copies of all liner construction and testing documents at the facility or in a reasonably accessible location and make the information available to the executive director upon request.

   C. A **new** wastewater pond constructed after the issuance date of this permit must be lined in compliance with one of the following requirements if it will contain process wastewater as defined in 40 CFR § 122.2. The executive director will review ponds that will contain only non-

process wastewater on a case-by-case basis to determine whether the pond must be lined. If a pond will contain only non-process wastewater, the owner shall notify the Industrial Permits Team (MC 148) to obtain a written determination at least 90 days before the pond is placed into service and copy the TCEQ Compliance Monitoring Team (MC 224) and regional office. The permittee must submit all information about the proposed pond contents that is reasonably necessary for the executive director to make a determination. If the executive director determines that a pond does not need to be lined, then the pond is exempt from C(1) through C(3) and D through G of POND REQUIREMENTS.

A wastewater pond that only contains domestic wastewater must comply with the design requirements in 30 TAC Chapter 217 and 30 TAC § 309.13(d) in lieu of items C(1) through C(3) of this subparagraph.

(1) Soil liner: The soil liner must contain clay-rich soil material (at least 30% of the liner material passing through a #200 mesh sieve, liquid limit greater than or equal to 30, and plasticity index greater than or equal to 15) that completely covers the sides and bottom of the pond. The liner must be at least 3.0 feet thick. The liner material must be compacted in lifts of no more than 8 inches to 95% standard proctor density at the optimum moisture content in accordance with ASTM D698 to achieve a permeability less than or equal to 1×10^{-7} (≤ 0.0000001) cm/sec. For in-situ soil material that meets the permeability requirement, the material must be scarified at least 8 inches deep and then re-compacted to finished grade.

(2) Synthetic membrane: The liner must be a synthetic membrane liner at least 40 mils in thickness that completely covers the sides and the bottom of the pond. The liner material used must be compatible with the wastewater and be resistant to degradation (e.g., from ultraviolet light, chemical reactions, wave action, erosion, etc.). The liner material must be installed and maintained in accordance with the manufacturer's guidelines. A wastewater pond with a synthetic membrane liner must include an underdrain with a leak detection and collection system.

(3) Alternate liner: The permittee shall submit plans signed and sealed by a Texas-licensed professional engineer for any other equivalently protective pond lining method to the TCEQ Industrial Permits Team (MC 148) and copy the regional office.

D. For a pond that must be lined according to subparagraph C (including ponds with in-situ soil liners), the permittee shall provide certification, signed and sealed by a Texas-licensed professional engineer, stating that the completed pond lining and any required underdrain with leak detection and collection system for the pond meet the requirements in subparagraph C(1) – C(3) before using the pond. The certification shall include the following minimum details about the pond lining system: (1) pond liner type (in-situ soil, amended in-situ soil, imported soil, synthetic membrane, or alternative), (2) materials used, (3) thickness of materials, and (4) either permeability test results or a leak detection and collection system description, as applicable.

The certification must be provided to the TCEQ Water Quality Assessment Team (MC 150), Industrial Permits Team (MC 148), and regional office. A copy of the liner certification and construction details (i.e., as-built drawings, construction QA/QC documentation, and post construction testing) must be kept on-site or in a reasonably accessible location (in either hardcopy or digital format) until the pond is closed.

E. Protection and maintenance requirements for a pond subject to subparagraph B or C (including ponds with in-situ soil liners).

(1) The permittee shall maintain a liner to prevent the unauthorized discharge of wastewater into or adjacent to water in the state.

(2) A liner must be protected from damage caused by animals. Fences or other protective devices or measures may be used to satisfy this requirement.

(3) The permittee shall maintain the structural integrity of the liner and shall keep the liner and embankment free of woody vegetation, animal burrows, and excessive erosion.

(4) The permittee shall inspect each pond liner and each leak detection system at least once per month. Evidence of damage or unauthorized discharge must be evaluated by a Texas-licensed professional engineer or Texas-licensed professional geoscientist within 30 days. The permittee is not required to drain an operating pond or to inspect below the waterline during these routine inspections.

a. A Texas-licensed professional engineer or Texas-licensed professional geoscientist must evaluate damage to a pond liner, including evidence of an unauthorized discharge without visible damage.

b. Pond liner damage must be repaired at the recommendation of a Texas-licensed professional engineer or Texas-licensed professional geoscientist. If the damage is significant or could result in an unauthorized discharge, then the repair must be documented and certified by a Texas-licensed professional engineer. Within 60 days after a repair is completed, the liner certification must be provided to the TCEQ Water Quality Assessments Team (MC 150) and regional office. A copy of the liner certification must be maintained at the facility or in a reasonably accessible location and made available to the executive director upon request.

c. A release determination and subsequent corrective action will be based on 40 CFR Part 257 or the Texas Risk Reduction Program (30 TAC Chapter 350), as applicable. If evidence indicates that an unauthorized discharge occurred, including evidence that the actual permeability exceeds the design permeability, the matter may also be referred to the TCEQ Enforcement Division to ensure the protection of the public and the environment.

F. For a pond subject to subparagraph B or C (including ponds with in-situ soil liners), the permittee shall have a Texas-licensed professional engineer perform an evaluation of each pond that requires a liner at least once every five years. The evaluation must include: (1) a physical inspection of the pond liner to check for structural integrity, damage, and evidence of leaking; (2) a review of the liner documentation for the pond; and (3) a review of all documentation related to liner repair and maintenance performed since the last evaluation. For the purposes of this evaluation, evidence of leaking also includes evidence that the actual permeability exceeds the design permeability. The permittee is not required to drain an operating pond or to inspect below the waterline during the evaluation. A copy of the engineer's evaluation report must be maintained at the facility or in a reasonably accessible location and made available to the executive director upon request.

G. For a pond subject to subparagraph B or C (including ponds with in-situ soil liners), the permittee shall maintain at least 2.0 feet of freeboard in the pond except when:

(1) the freeboard requirement temporarily cannot be maintained due to a large storm event that requires the additional retention capacity to be used for a limited period of time;

(2) the freeboard requirement temporarily cannot be maintained due to upset plant conditions that require the additional retention capacity to be used for treatment for a limited period of time; or

(3) the pond was not required to have at least 2.0 feet of freeboard according to the requirements at the time of construction.

8. Monitoring results shall be provided at the interval specified in the permit. For pollutants which are monitored annually, effluent reports shall be submitted in September of each year.

9. For the composite sampling of volatile organics using EPA Methods 601, 602, 603, 624.1, or 1624 (or any other 40 CFR Part 136 method approved after the effective date of this permit), the permittee shall manually collect four aliquots (grab samples) in clean zero-head-space containers at regular intervals during the actual hours of discharge during the 24-hour sampling period using sample collection, preservation, and handling techniques specified in the appropriate test method. These aliquots must be combined in the laboratory immediately before analysis to represent the composite sample of the discharge. One of the following alternative methods must be used to composite these aliquots.

A. Each aliquot is poured into a syringe. The plunger is added, and the volume is adjusted to 1-1/4 mL. Each aliquot (1-1/4 mL) is injected into the purging chamber (total 5 mL) of the purge and trap system. After four injections (total of 5 mL), the chamber is purged. Alternatively, equal volumes (1¼ mL) of the individual grab samples are added to the purge device to a total volume of 5 mL, and the sample is then analyzed. Only one analysis or run is required since the aliquots are combined prior to analysis.

B. Chill the four aliquots to ≤6˚C. These aliquots must be of equal volume. Carefully pour the contents of each of the 4 aliquots into a 250-500 mL flask which is chilled in a wet ice bath. Stir the mixture gently with a clean glass rod while in the wet ice bath. Carefully fill two or more clean 40-mL zero-head-space vials from the flask and dispose of the remainder of the mixture. Analyze one of the aliquots to determine the concentrations of the composite sample. The remaining aliquot(s) are replicate composite samples that can be analyzed if desired or necessary.

C. Alternative sample compositing methods may be used following written approval by the TCEQ.

The individual samples resulting from the application of these compositing methods shall be analyzed following the procedures specified for the selected test method. The resulting analysis shall be reported as the daily composite concentration.

As an alternative to the above compositing methods, the permittee may manually collect four aliquots (grab samples) in clean zero head-spaced containers at regular intervals during the actual hours of discharge during the 24-hour sampling period using sample collection, preservation, and handling techniques specified in the appropriate test method. A separate analysis must be conducted for each discrete aliquot or grab sample following approved test procedures.

The determination of daily composite concentration shall be the arithmetic average (weighted by flow) of all grab samples collected during the 24-hour sampling period.

10. This permit does not provide authorization for the permittee to accept wastewaters from third party sources, nor does it prohibit acceptance of such wastewaters. This permit only provides the authorization to discharge these wastes. Should authorization to accept third party waste be required, it is the obligation of the permittee to obtain such authorization from the appropriate regulatory authority.

11. Any analytical method for free cyanide or available cyanide that is approved in 40 CFR Part 136 may be used.

12. The permittee shall comply with the following schedule of activities for the attainment of water quality-based final effluent limitations for free cyanide at Outfall 001:

    A. Determine exceedance cause(s);
    B. Develop control options;
    C. Evaluate and select control mechanisms;
    D. Implement corrective action; and
    E. Attain final effluent limitations no later than three years from the date of permit issuance.

    The permittee shall submit quarterly progress reports in accordance with the following schedule. The requirement to submit quarterly progress reports expires three years from the date of permit issuance.

PROGRESS REPORT DATE
January 1
April 1
July 1
October 1

    The quarterly progress reports must include a discussion of the interim requirements that have been completed at the time of the report and must address the progress towards attaining the water quality-based final effluent limitations for free cyanide at Outfall 001 no later than three years from the date of permit issuance.

    Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date. Any reports of noncompliance shall include the cause of noncompliance, any remedial actions taken, and the probability of meeting the next scheduled requirement.

    All reports must be submitted to the TCEQ Region 12 Office and to the Compliance Monitoring Team (MC-224).

CHRONIC BIOMONITORING REQUIREMENTS: MARINE

The provisions of this section apply to Outfall 001 for whole effluent toxicity (WET) testing.

1. Scope, Frequency and Methodology

a. The permittee shall test the effluent for toxicity in accordance with the provisions below. Such testing will determine if an appropriately dilute effluent sample adversely affects the survival or growth of the test organisms.

b. The permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified below and in accordance with "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms," third edition (EPA-821-R-02-014) or its most recent update:

1) Chronic static renewal 7-day survival and growth test using the mysid shrimp (*Americamysis bahia*) (Method 1007.0). A minimum of eight replicates with five organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.

2) Chronic static renewal 7-day larval survival and growth test using the inland silverside (*Menidia beryllina*) (Method 1006.0). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.

The permittee must perform and report a valid test for each test species during the prescribed reporting period. An invalid test must be repeated during the same reporting period. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

c. The permittee shall use five effluent dilution concentrations and a control in each toxicity test. These effluent dilution concentrations are 3%, 5%, 6%, 8%, and 11% effluent. The critical dilution, defined as 8% effluent, is the effluent concentration representative of the proportion of effluent in the receiving water during critical low flow or critical mixing conditions.

d. This permit may be amended to require a WET limit, a chemical-specific limit, a best management practice, or other appropriate actions to address toxicity. The permittee may be required to conduct a toxicity reduction evaluation (TRE) after multiple toxic events.

e. Testing Frequency Reduction

1) If none of the first four consecutive quarterly tests demonstrates significant toxicity, the permittee may submit this information in writing and, upon approval, reduce the testing frequency to once per six months for the invertebrate test species and once per year for the vertebrate test species.

2) If one or more of the first four consecutive quarterly tests demonstrates significant toxicity, the permittee shall continue quarterly testing for that species until this permit is reissued. If a testing frequency reduction had been

previously granted and a subsequent test demonstrates significant toxicity, the permittee will resume a quarterly testing frequency for that species until this permit is reissued.

2. Required Toxicity Testing Conditions

a. Test Acceptance - The permittee shall repeat any toxicity test, including the control and all effluent dilutions, which fails to meet any of the following criteria:

1) a control mean survival of 80% or greater;

2) a control mean dry weight of surviving mysid shrimp of 0.20 mg or greater;

3) a control mean dry weight for surviving unpreserved inland silverside of 0.50 mg or greater and 0.43 mg or greater for surviving preserved inland silverside.

4) a control coefficient of variation percent (CV%) between replicates of 40 or less in the growth and survival tests;

5) a critical dilution CV% of 40 or less in the growth and survival endpoints for either growth and survival test. However, if statistically significant lethal or nonlethal effects are exhibited at the critical dilution, a CV% greater than 40 shall not invalidate the test;

6) a percent minimum significant difference of 37 or less for mysid shrimp growth; and

7) a percent minimum significant difference of 28 or less for inland silverside growth.

b. Statistical Interpretation

1) For the mysid shrimp and the inland silverside larval survival and growth tests, the statistical analyses used to determine if there is a significant difference between the control and an effluent dilution shall be in accordance with the manual referenced in Part 1.b.

2) The permittee is responsible for reviewing test concentration-response relationships to ensure that calculated test-results are interpreted and reported correctly. The document entitled “Method Guidance and Recommendation for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)” (EPA 821-B-00-004) provides guidance on determining the validity of test results.

3) If significant lethality is demonstrated (that is, there is a statistically significant difference in survival at the critical dilution when compared to the survival in the control), the conditions of test acceptability are met, and the survival of the test organisms are equal to or greater than 80% in the critical dilution and all dilutions below that, then the permittee shall report a survival No Observed Effect Concentration (NOEC) of not less than the critical dilution for the reporting requirements.

4) The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. The Lowest Observed Effect Concentration (LOEC) is

defined as the lowest effluent dilution at which a significant effect is demonstrated. A significant effect is herein defined as a statistically significant difference between the survival, reproduction, or growth of the test organism in a specified effluent dilution compared to the survival, reproduction, or growth of the test organism in the control (0% effluent).

5) The use of NOECs and LOECs assumes either a monotonic (continuous) concentration-response relationship or a threshold model of the concentration-response relationship. For any test result that demonstrates a non-monotonic (non-continuous) response, the NOEC should be determined based on the guidance manual referenced in Item 2.

6) Pursuant to the responsibility assigned to the permittee in Part 2.b.2), test results that demonstrate a non-monotonic (non-continuous) concentration-response relationship may be submitted, prior to the due date, for technical review. The guidance manual referenced in Part 1.b. will be used when making a determination of test acceptability.

7) TCEQ staff will review test results for consistency with rules, procedures, and permit requirements.

c. Dilution Water

1) Dilution water used in the toxicity tests must be the receiving water collected as close to the point of discharge as possible but unaffected by the discharge.

2) Where the receiving water proves unsatisfactory as a result of preexisting instream toxicity (i.e., fails to fulfill the test acceptance criteria of Part 2.a.), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:

a) a synthetic lab water control was performed (in addition to the receiving water control) which fulfilled the test acceptance requirements of Part 2.a;

b) the test indicating receiving water toxicity was carried out to completion (i.e., 7 days); and

c) the permittee submitted all test results indicating receiving water toxicity with the reports and information required in Part 3.

3) The synthetic dilution water shall consist of standard, reconstituted seawater. Upon approval, the permittee may substitute other dilution water with chemical and physical characteristics similar to that of the receiving water.

d. Samples and Composites

1) The permittee shall collect a minimum of three composite samples from Outfall 001. The second and third composite samples will be used for the renewal of the dilution concentrations for each toxicity test.

2) The permittee shall collect the composite samples such that the samples are representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged on an intermittent basis.

3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the first composite sample. The holding time for any subsequent composite sample shall not exceed 72 hours. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.

4) If Outfall 001 ceases discharging during the collection of effluent samples, the requirements for the minimum number of effluent samples, the minimum number of effluent portions, and the sample holding time are waived during that sampling period. However, the permittee must have collected an effluent composite sample volume sufficient to complete the required toxicity tests with renewal of the effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required in this section shall be submitted to the attention of the Standards Implementation Team (MC 150) of the Water Quality Division.

a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated whether carried to completion or not.

b. The permittee shall routinely report the results of each biomonitoring test on the Table 1 forms provided with this permit.

1) Annual biomonitoring test results are due on or before January 20th for biomonitoring conducted during the previous 12-month period.

2) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.

3) Quarterly biomonitoring test results are due on or before April 20th, July 20th, October 20th, and January 20th, for biomonitoring conducted during the previous calendar quarter.

4) Monthly biomonitoring test results are due on or before the 20th day of the month following sampling.

c. Enter the following codes for the appropriate parameters for valid tests only:

1) For the mysid shrimp, Parameter TLP3E, enter a “1” if the NOEC for survival is less than the critical dilution; otherwise, enter a “0.”

2) For the mysid shrimp, Parameter TOP3E, report the NOEC for survival.

3) For the mysid shrimp, Parameter TXP3E, report the LOEC for survival.

4) For the mysid shrimp, Parameter TWP3E, enter a "1" if the NOEC for growth is less than the critical dilution; otherwise, enter a "0."

5) For the mysid shrimp, Parameter TPP3E, report the NOEC for growth.

6) For the mysid shrimp, Parameter TYP3E, report the LOEC for growth.

7) For the inland silverside, Parameter TLP6J, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

8) For the inland silverside, Parameter TOP6J, report the NOEC for survival.

9) For the inland silverside, Parameter TXP6J, report the LOEC for survival.

10) For the inland silverside, Parameter TWP6J, enter a "1" if the NOEC for growth is less than the critical dilution; otherwise, enter a "0."

11) For the inland silverside, Parameter TPP6J, report the NOEC for growth.

12) For the inland silverside, Parameter TYP6J, report the LOEC for growth.

d. Enter the following codes for retests only:

1) For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

2) For retest number 2, Parameter 22416, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

4. Persistent Toxicity

The requirements of this part apply only when a test demonstrates a significant effect at the critical dilution. Significant effect and significant lethality were defined in Part 2.b. Significant sublethality is defined as a statistically significant difference in growth at the critical dilution when compared to the growth of the test organism in the control.

a. The permittee shall conduct a total of 2 additional tests (retests) for any species that demonstrates a significant effect (lethal or sublethal) at the critical dilution. The two retests shall be conducted monthly during the next two consecutive months. The permittee shall not substitute either of the two retests in lieu of routine toxicity testing. All reports shall be submitted within 20 days of test completion. Test completion is defined as the last day of the test.

b. If the retests are performed due to a demonstration of significant lethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5. The provisions of Part 4.a. are suspended upon completion of the two retests and submittal of the TRE Action plan and schedule defined in Part 5.

If neither test demonstrates significant lethality and the permittee is testing under the reduced testing frequency provision of Part 1.e., the permittee shall return to a quarterly testing frequency for that species.

c. If the two retests are performed due to a demonstration of significant sublethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall again perform two retests as stipulated in Part 4.a.

d. If the two retests are performed due to a demonstration of significant sublethality, and neither test demonstrates significant lethality, the permittee shall continue testing at the quarterly frequency.

e. Regardless of whether retesting for lethal or sublethal effects or a combination of the two, no more than one retest per month is required for a species.

5. Toxicity Reduction Evaluation

a. Within 45 days of the retest that demonstrates significant lethality, or within 45 days of being so instructed due to multiple toxic events, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.

b. Within 90 days of the retest that demonstrates significant lethality, or within 90 days of being so instructed due to multiple toxic events, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall describe an approach for the reduction or elimination of lethality for both test species defined in Part 1.b. At a minimum, the TRE Action Plan shall include the following:

1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled “Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures” (EPA/600/6-91/003) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled, “Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity” (EPA/600/R-92/080) and “Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity” (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;

2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;

3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and

4) Project Organization - The TRE action plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.

c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.

d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:

1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;

2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;

3) any data and substantiating documentation which identifies the pollutant and source of effluent toxicity;

4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;

5) any data which identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution; and

6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.

e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.

f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive months with at least monthly testing. At the end of the 12 months, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

This provision accommodates situations where operational errors and upsets, spills, or sampling errors triggered the TRE, in contrast to a situation where a single toxicant or group of toxicants cause lethality. This provision does not apply as a result of corrective actions taken by the permittee. Corrective actions are herein defined as proactive efforts that eliminate or reduce effluent toxicity. These include, but are not limited to, source reduction or elimination, improved housekeeping, changes in chemical usage, and modifications of influent streams and effluent treatment.

The permittee may only apply this cessation of lethality provision once. If the effluent again demonstrates significant lethality to the same species, the permit will be amended to add a WET limit with a compliance period, if appropriate. However, prior to the effective date of the WET limit, the permittee may apply for a permit amendment removing and replacing the WET limit with an alternate toxicity control measure by identifying and confirming the toxicant and an appropriate control measure.

g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 28 months from the last test day of the retest that confirmed significant lethal effects at the critical dilution. The permittee may petition the Executive Director (in writing) for an extension of the 28-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond their control stalled the toxicity identification evaluation/TRE. The report shall provide information pertaining to the specific control mechanism selected that will, when implemented, result in the reduction of effluent toxicity to no significant lethality at the critical dilution. The report shall also provide a specific corrective action schedule for implementing the selected control mechanism.

h. Based upon the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements, where necessary, require a compliance schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and to specify a chemical-specific limit.

i. Copies of any and all required TRE plans and reports shall also be submitted to the U.S. EPA Region 6 office, 6WQ-PO.

TABLE 1 (SHEET 1 OF 4)

MYSID SHRIMP SURVIVAL AND GROWTH

Dates and Times Composites Collected

Date Time Date Time

No. 1 FROM: _____ TO: _____

No. 2 FROM: _____ TO: _____

No. 3 FROM: _____ TO: _____

Test initiated: _____am/pm _____date

Dilution water used: _____ Receiving water _____ Synthetic dilution water

MYSID SHRIMP SURVIVAL

Percent Effluent	Percent Survival in Replicate Chambers								Mean Percent Survival			CV%*
	A	B	C	D	E	F	G	H	24h	48h	7 day	
0%												
3%												
5%												
6%												
8%												
11%												

* Coefficient of Variation = standard deviation x 100/mean

DATA TABLE FOR GROWTH OF MYSID SHRIMP

Replicate	Mean dry weight in milligrams in replicate chambers					
	0%	3%	5%	6%	8%	11%
A						
B						
C						
D						
E						

TABLE 1 (SHEET 2 OF 4)

MYSID SHRIMP SURVIVAL AND GROWTH

DATA TABLE FOR GROWTH OF MYSID SHRIMP (Continued)

Replicate	Mean dry weight in milligrams in replicate chambers					
	0%	3%	5%	6%	8%	11%
F						
G						
H						
Mean Dry Weight (mg)						
CV%*						
PMSD						

1. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

   Is the mean survival at 7 days significantly less than the control survival for the % effluent corresponding to lethality?

   CRITICAL DILUTION (8%): _____ YES _____ NO

2. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

   Is the mean dry weight (growth) at 7 days significantly less than the control's dry weight (growth) for the % effluent corresponding to non-lethal effects?

   CRITICAL DILUTION (8%): _____ YES _____ NO

3. Enter percent effluent corresponding to each NOEC\LOEC below:

   a.) NOEC survival = _____% effluent

   b.) LOEC survival = _____% effluent

   c.) NOEC growth = _____% effluent

   d.) LOEC growth = _____% effluent

TABLE 1 (SHEET 3 OF 4)

INLAND SILVERSIDE MINNOW LARVAL SURVIVAL AND GROWTH TEST

		Date Time	Date Time
Dates and Times Composites Collected	No. 1 FROM:	_____	TO: _____
	No. 2 FROM:	_____	TO: _____
	No. 3 FROM:	_____	TO: _____

Test initiated: _____am/pm _____date

Dilution water used: _____ Receiving water _____ Synthetic Dilution water

INLAND SILVERSIDE SURVIVAL

Percent Effluent	Percent Survival in Replicate Chambers					Mean Percent Survival			CV%*
	A	B	C	D	E	24h	48h	7 days	
0%									
3%									
5%									
6%									
8%									
11%									

* Coefficient of Variation = standard deviation x 100/mean

TABLE 1 (SHEET 4 OF 4)

INLAND SILVERSIDE LARVAL SURVIVAL AND GROWTH TEST

INLAND SILVERSIDE GROWTH

Percent Effluent	Average Dry Weight in milligrams in replicate chambers					Mean Dry Weight (mg)	CV%*
	A	B	C	D	E		
0%							
3%							
5%							
6%							
8%							
11%							
PMSD							

Weights are for: ____ preserved larvae, or ____ unpreserved larvae

1. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

   Is the mean survival at 7 days significantly less than the control survival for the % effluent corresponding to lethality?

   CRITICAL DILUTION (8%): _____ YES _____ NO

2. Dunnett's Procedure or Steel's Many-One Rank Test or Wilcoxon Rank Sum Test (with Bonferroni adjustment) or t-test (with Bonferroni adjustment) as appropriate:

   Is the mean dry weight (growth) at 7 days significantly less than the control's dry weight (growth) for the % effluent corresponding to non-lethal effects?

   CRITICAL DILUTION (8%): _____ YES _____ NO

3. Enter percent effluent corresponding to each NOEC/LOEC below:

   a.) NOEC survival = _____% effluent

   b.) LOEC survival = _____% effluent

   c.) NOEC growth = _____% effluent

   d.) LOEC growth = _____% effluent

24-HOUR ACUTE BIOMONITORING REQUIREMENTS: MARINE

The provisions of this section apply to Outfall 001 for whole effluent toxicity (WET) testing.

1. Scope, Frequency, and Methodology

a. The permittee shall test the effluent for lethality in accordance with the provisions in this Section. Such testing will determine compliance with Texas Surface Water Quality Standard 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the appropriate test organisms in 100% effluent for a 24-hour period.

b. The toxicity tests specified shall be conducted once per six months. The permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified in this section of the permit and in accordance with "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms," fifth edition (EPA-821-R-02-012) or its most recent update:

1) Acute 24-hour static toxicity test using the mysid shrimp (*Americamysis bahia*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.

2) Acute 24-hour static toxicity test using the inland silverside (*Menidia beryllina*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.

A valid test result must be submitted for each reporting period. The permittee must report, then repeat, an invalid test during the same reporting period. The repeat test shall include the control and all effluent dilutions and use the appropriate number of organisms and replicates, as specified above. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

c. In addition to an appropriate control, a 100% effluent concentration shall be used in the toxicity tests. Except as discussed in Part 2.b., the control and dilution water shall consist of standard, synthetic, reconstituted seawater.

d. This permit may be amended to require a WET limit, a best management practice, a chemical-specific limit, additional toxicity testing, and other appropriate actions to address toxicity. The permittee may be required to conduct a toxicity reduction evaluation (TRE) after multiple toxic events.

2. Required Toxicity Testing Conditions

a. Test Acceptance - The permittee shall repeat any toxicity test, including the control, if the control fails to meet a mean survival equal to or greater than 90%.

b. Dilution Water - In accordance with Part 1.c., the control and dilution water shall consist of standard, synthetic, reconstituted seawater.

c. Samples and Composites

1) The permittee shall collect one composite sample from Outfall 001.

2) The permittee shall collect the composite sample such that the sample is representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged on an intermittent basis.

3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the composite sample. The sample shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.

4) If Outfall 001 ceases discharging during the collection of the effluent composite sample, the requirements for the minimum number of effluent portions are waived. However, the permittee must have collected a composite sample volume sufficient for completion of the required test. The abbreviated sample collection, duration, and methodology must be documented in the full report.

3. Reporting

All reports, tables, plans, summaries, and related correspondence required of this section shall be submitted to the attention of the Standards Implementation Team (MC 150) of the Water Quality Division.

a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated.

b. The permittee shall routinely report the results of each biomonitoring test on the Table 2 forms provided with this permit.

1) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.

2) Quarterly biomonitoring test results are due on or before April 20th, July 20th, October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.

c. Enter the following codes for the appropriate parameters for valid tests only:

1) For the mysid shrimp, Parameter TIE3E, enter a “0” if the mean survival at 24-hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a “1.”

2) For the inland silverside, Parameter TII6J, enter a “0” if the mean survival at 24-hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a “1.”

d. Enter the following codes for retests only:

1) For retest number 1, Parameter 22415, enter a "0" if the mean survival at 24-hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter "1."

2) For retest number 2, Parameter 22416, enter a "0" if the mean survival at 24-hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter "1."

4. Persistent Mortality

The requirements of this part apply when a toxicity test demonstrates significant lethality, here defined as a mean mortality of 50% or greater to organisms exposed to the 100% effluent concentration after 24-hours.

a. The permittee shall conduct 2 additional tests (retests) for each species that demonstrates significant lethality. The two retests shall be conducted once per week for 2 weeks. Five effluent dilution concentrations in addition to an appropriate control shall be used in the retests. These additional effluent concentrations are 6%, 13%, 25%, 50% and 100% effluent. The first retest shall be conducted within 15 days of the laboratory determination of significant lethality. All test results shall be submitted within 20 days of test completion of the second retest. Test completion is defined as the 24th hour.

b. If one or both of the two retests specified in item 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5 of this Section.

5. Toxicity Reduction Evaluation

a. Within 45 days of the retest that demonstrates significant lethality, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.

b. Within 90 days of the retest that demonstrates significant lethality, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall lead to the successful elimination of significant lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:

1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled “Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures” (EPA/600/6-91/003) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled “Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity” (EPA/600/R-92/080) and “Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity” (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;

2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects a specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;

3) Quality Assurance Plan - The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and

4) Project Organization - The TRE action plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.

c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.

d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly TRE activities reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:

1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;

2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;

3) any data and substantiating documentation that identifies the pollutant and source of effluent toxicity;

4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;

5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to eliminate significant lethality; and

6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.

e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.

f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive weeks with at least weekly testing. At the end of

the 12 weeks, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

This provision accommodates situations where operational errors and upsets, spills, or sampling errors triggered the TRE, in contrast to a situation where a single toxicant or group of toxicants cause lethality. This provision does not apply as a result of corrective actions taken by the permittee. Corrective actions are defined as proactive efforts that eliminate or reduce effluent toxicity. These include, but are not limited to, source reduction or elimination, improved housekeeping, changes in chemical usage, and modifications of influent streams and effluent treatment.

The permittee may only apply this cessation of lethality provision once. If the effluent again demonstrates significant lethality to the same species, the permit will be amended to add a WET limit with a compliance period, if appropriate. However, prior to the effective date of the WET limit, the permittee may apply for a permit amendment removing and replacing the WET limit with an alternate toxicity control measure by identifying and confirming the toxicant and an appropriate control measure.

g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 18 months from the last test day of the retest that demonstrates significant lethality. The permittee may petition the Executive Director (in writing) for an extension of the 18-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE. The report shall specify the control mechanism that will, when implemented, reduce effluent toxicity as specified in Part 5.h. The report shall also specify a corrective action schedule for implementing the selected control mechanism.

h. Within 3 years of the last day of the test confirming toxicity, the permittee shall comply with 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the test organism in 100% effluent at the end of 24-hours. The permittee may petition the Executive Director (in writing) for an extension of the 3-year limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE.

The permittee may be exempted from complying with 30 TAC § 307.6(e)(2)(B) upon proving that toxicity is caused by an excess, imbalance, or deficiency of dissolved salts. This exemption excludes instances where individually toxic components (e.g., metals) form a salt compound. Following the exemption, the permit may be amended to include an ion-adjustment protocol, alternate species testing, or single species testing.

i. Based upon the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements where necessary, require a compliance schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and to specify a chemical specific limit.

j. Copies of any and all required TRE plans and reports shall also be submitted to the U.S. EPA Region 6 office, 6WQ-PO.

TABLE 2 (SHEET 1 OF 2)

MYSID SHRIMP SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	6%	13%	25%	50%	100%
24h	A						
	B						
	C						
	D						
	E						
	MEAN						

Enter percent effluent corresponding to the LC50 below:

24-hour LC50 = _____% effluent

TABLE 2 (SHEET 2 OF 2)

INLAND SILVERSIDE SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

Time	Rep	Percent effluent					
		0%	6%	13%	25%	50%	100%
24h	A						
	B						
	C						
	D						
	E						
	MEAN						

Enter percent effluent corresponding to the LC50 below:

24-hour LC50 = _____% effluent

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000002000, U.S. Environmental Protection Agency (EPA) ID No. TX0006335, to discharge to water in the state

Issuing Office:	Texas Commission on Environmental Quality (TCEQ) P.O. Box 13087 Austin, Texas 78711-3087
Applicant:	Oxy Vinyls, LP P.O. Box 849 Pasadena, Texas 77501
Prepared By:	Mónica Vallin-Báez Wastewater Permitting Section Water Quality Division (512) 239-5784
Date:	April 1, 2025
Permit Action:	Renewal without changes; TPDES Permit No. WQ0000002000

I. 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 Texas Administrative Code (TAC) §305.127(1)(C)(i).

II. APPLICANT ACTIVITY

The applicant currently operates the Pasadena PVC Plant, a facility that manufactures polyvinyl chloride resin and is authorized to treat and discharge wastewater from off-site facilities that manufacture plastic materials and industrial organic chemicals and that store anhydrous ammonia.

III. DISCHARGE LOCATION

As described in the application, the facility is located at 4403 Pasadena Freeway, near the City of Pasadena, in Harris County, Texas 77503. Discharge is directly to the Houston Ship Channel Tidal in Segment No. 1006 of the San Jacinto River Basin.

IV. RECEIVING STREAM USES

The designated uses for Segment No. 1006 are navigation and industrial water supply.

V. STREAM STANDARDS

The general criteria and numerical criteria that make up the stream standards are provided in 30 TAC §§ 307.1 - 307.10.

VI. DISCHARGE DESCRIPTION

The following is a quantitative description of the discharge described in the monthly effluent report data for the period January 2019 through December 2024. The "average of daily average" values presented in the following table are the average of all daily average values for the reporting period for each pollutant. The "maximum of daily maximum" values presented in the following table are the individual maximum values for the reporting period for each pollutant. Flows are expressed in million gallons per day (MGD). All pH values are expressed in standard units (SU). Bacteria levels are expressed in colony forming units (cfu) or most probable number (MPN) per 100 mL.

A. Flow

Outfall	Frequency	Average of Daily Average, MGD	Maximum of Daily Maximum, MGD
001	Continuous	2.62	4.9

B. Temperature

Outfall	Average of Daily Average, °F	Maximum of Daily Maximum, °F
001	N/A	102

C. Effluent Characteristics

Outfall	Pollutant	Average of Daily Average		Maximum of Daily Maximum	
		lbs/day	mg/L	lbs/day	mg/L
001	Biochemical Oxygen Demand, 5-day (BOD_5)	67.1	N/A	600	N/A
	Ammonia Nitrogen	9.15	N/A	54.6	N/A
	Total Suspended Solids (TSS)	146	N/A	1182	N/A
	Chemical Oxygen Demand (COD)	571	N/A	1952	N/A
	Oil and Grease	105	N/A	165	N/A
	Enterococci [1]	2.33 cfu/100 mL		71.8 cfu/100 mL	
	Enterococci [2]	3.00 MPN/100 mL		2090 MPN/100 mL	
	Copper, Total	0.049	0.0022	0.742	0.038
	Zinc, Total	0.288	0.012	3.95	0.158
	Nickel, Total	0.071	N/A	0.121	N/A
	Acenaphthene	0	N/A	0	N/A
	Acenaphthylene	0	N/A	0	N/A
	Acrylonitrile	0	N/A	0	N/A
	Anthracene	0	N/A	0	N/A
	Benzene	0	N/A	0	N/A
	Benzo(a)anthracene	0	0	0	0
	3,4-Benzofluoranthene	0	N/A	0	N/A
	Benzo(k)fluoranthene	0	N/A	0	N/A
	Benzo(a)pyrene	0	0	0	0
	Bis(2-ethylhexyl) phthalate	0.413	N/A	2.37	N/A
	Carbon Tetrachloride	0	N/A	0	N/A
	Chlorobenzene	0	N/A	0	N/A

[1] The reporting period for Enterococci in cfu/100 mL was from January 2019 through October 2019.

[2] The reporting period for Enterococci in MPN/100 mL was from November 2019 through December 2024.

C. Effluent Characteristics

Outfall	Pollutant	Average of Daily Average		Maximum of Daily Maximum	
		lbs/day	mg/L	lbs/day	mg/L
001	Chloroethane	0	N/A	0	N/A
	Chloroform	0.068	N/A	0.31	N/A
	2-Chlorophenol	0	N/A	0	N/A
	Chrysene	0	N/A	0	N/A
	Di-n-butyl Phthalate	0	N/A	0	N/A
	1,2-Dichlorobenzene	0	N/A	0	N/A
	1,3-Dichlorobenzene	0	N/A	0	N/A
	1,4-Dichlorobenzene	0	N/A	0	N/A
	1,1-Dichloroethane	0	N/A	0	N/A
	1,2-Dichloroethane	0	N/A	0	N/A
	1,1-Dichloroethylene	0	N/A	0	N/A
	1,2-trans-Dichloroethylene	0	N/A	0	N/A
	2,4-Dichlorophenol	0	N/A	0	N/A
	1,2-Dichloropropane	0	N/A	0	N/A
	1,3-Dichloropropylene	0	N/A	0	N/A
	Diethyl Phthalate	0	N/A	0	N/A
	2,4-Dimethylphenol	0	N/A	0	N/A
	Dimethyl Phthalate	0	N/A	0	N/A
	4,6-Dinitro-o-cresol	0	N/A	0	N/A
	2,4-Dinitrophenol	0	N/A	0	N/A
	2,4-Dinitrotoluene	0	N/A	0	N/A
	2,6-Dinitrotoluene	0	N/A	0	N/A
	Ethylbenzene	0	N/A	0	N/A
	Fluoranthene	0	N/A	0	N/A
	Fluorene	0	N/A	0	N/A
	Hexachlorobenzene	0	0	0	0
	Hexachlorobutadiene	0	N/A	0	N/A
	Hexachloroethane	0	N/A	0	N/A
	Methyl Chloride	0	N/A	0	N/A
	Methylene Chloride	0	N/A	0	N/A
	Naphthalene	0	N/A	0	N/A
	Nitrobenzene	0	N/A	0	N/A
	2-Nitrophenol	0	N/A	0	N/A
	4-Nitrophenol	0	N/A	0	N/A
	Phenanthrene	0	0	0	0
	Phenol	0	N/A	0	N/A
	Pyrene	0	N/A	0	N/A
	Tetrachloroethylene	0	N/A	0	N/A
	Toluene	0	N/A	0	N/A
	1,2,4-Trichlorobenzene	0	N/A	0	N/A
	1,1,1-Trichloroethane	0	N/A	0	N/A
	1,1,2-Trichloroethane	0	N/A	0	N/A
	Trichloroethylene	0	N/A	0	N/A
	Vinyl Chloride	0	N/A	0	N/A
	pH	3.6 SU (min)		9.8 SU	

Effluent limit violations documented in the monthly effluent reports are summarized in the following table.

D. Effluent Limitation Violations

Outfall	Pollutant (units)	Month/ Year	Daily Average		Daily Maximum	
			Limit	Reported	Limit	Reported
001	Enterococci (MPN/100 mL)	06/2023	N/A	N/A	104	2090
	pH (SU)	11/2020	6.0 (min)	3.6	N/A	N/A

The draft permit was not changed to address these effluent limit violations because this one exceedance for enterococci and pH for the reporting period does not show a regular pattern of non-compliance.

VII. DRAFT EFFLUENT LIMITATIONS

The draft permit authorizes the discharge of process wastewater (including process wastewater from the adjacent BASF facility), utility wastewater (including utility wastewater from the adjacent BASF, Houston Ammonia Terminal, and Aurora Plastics facilities), domestic wastewater, and stormwater (including stormwater from the adjacent BASF, Houston Ammonia Terminal, and Aurora Plastics facilities) at a daily average flow not to exceed 4.0 MGD via Outfall 001. See Appendix D for comparison of technology-based effluent limitations, water quality-based effluent limitations, existing effluent limitations, and effluent limitations established in the draft permit.

OUTFALL LOCATIONS

Outfall	Latitude	Longitude
001	29.734428 N	95.150436 W

VIII. SUMMARY OF CHANGES FROM APPLICATION

The following changes have been made from the application that make the draft permit more stringent:

1. Analytical Data for free cyanide provided in the application received by TCEQ on April 16, 2024 exceeded 85% of the calculated water quality-based effluent limitations. Therefore, effluent limitations for free cyanide have been included in the draft permit. A three-year compliance period consistent with 30 TAC § 307.2(f) has been included in the draft permit to allow the applicant time to assess the wastewater and consider options to attain the final effluent limitations.

2. The newly calculated water quality-based concentration effluent limitations for total zinc are more protective than the existing effluent limitation and have been included in the draft permit. Based on the values reported in the self-reported data no compliance period has been included in the draft permit.

3. The existing daily average and daily maximum effluent limitations for benzo(a)anthracene, benzo(a)pyrene, hexachlorobenzene, and hexachlorobutadiene are less protective than the newly calculated water quality-based effluent limitations and have been included in the draft

permit. Based on the self-reported data these parameters were non-detect; therefore, no compliance period was included in the draft permit.

4. The newly calculated water quality-based daily average concentration effluent limitation for phenanthrene is slightly more protective than the existing daily average effluent limitation and has been included in the draft permit. Based on the self-reported data this parameter was non-detect; therefore, no compliance period was included in the draft permit.

5. The technology-based daily average mass limitation for the following parameters is slightly more protective than the existing mass effluent limitation and has been included in the draft permit: 3,4-benzofluoranthene, carbon tetrachloride, 2,4-dichlorophenol, and 2,4-dimethylphenol.

6. The technology-based daily maximum mass limitation for the following parameters is slightly more protective than the existing mass effluent limitation and has been included in the draft permit: Chlorobenzene and 1,4-dichlorobenzene.

7. The single grab value established in the draft permit for benzo(a)anthracene, benzo(a) pyrene, and hexachlorobenzene in the draft permit is based on the minimum analytical level (MAL). The calculated single grab value is less than the MAL; therefore, the MAL is used as the single grab value.

8. The single grab value established in the draft permit for hexachlorobutadiene and phenanthrene was calculated by multiplying the daily maximum effluent concentration limit by 2 and is consistent with TCEQ practice for establishing single grab values for most parameters with composite sample types.

9. The single grab value for the remaining toxic pollutants regulated under 40 CFR Part 414, Subpart I, were revised based on the calculations in Appendix A for priority pollutants.

IX. SUMMARY OF CHANGES FROM EXISTING PERMIT

The following additional changes have been made to the draft permit:

1. The mailing address has been changed on page 1 of the permit to match the information provided in the application from P.O. Box 500, Deer Park, Texas 77536 to P.O. Box 849, Pasadena, Texas 77501.
2. The facility's address description has been changed from 4403 Pasadena Freeway, approximately one mile north of the intersection of Beltway 8 and Texas Highway 225, on the west side of Beltway 8, and at the confluence of the Beltway 8 Bridge over the Houston Ship Channel Tidal, in Harris County, Texas 77503 to 4403 Pasadena Freeway, near the City of Pasadena, in Harris County, Texas 77503, to be consistent with TCEQ procedures.
3. A footnote for the daily average for Entorococci has been included in the Effluent Page of the draft permit to specify that the average is a geometric mean for Enterococci.
4. A footnote was included for free cyanide for the compliance period and when the permit limits go into effect.
5. Pages 3-13 were updated (May 2021 version).
6. Other Requirement No. 2 was revised to include free cyanide to the list.

7. Other Requirement No. 3 was revised in the draft permit to address cooling water intake structure requirements under CWA §316(b). Although CWA §316(b) does not currently apply to this facility, the applicant would be required to notify the TCEQ if there is a change in how the facility obtains cooling water.
8. Other Requirement No. 10 regarding temperature was removed because it is no longer applicable.
9. Other Requirement No. 12 regarding the sampling for free cyanide was removed, because is no longer applicable.
10. New Other Requirement No. 11 was added which notes that any analytical method for free cyanide or available cyanide that is approved in 40 CFR Part 136 may be used.
11. Other Requirement No. 12 was added to the draft permit for the compliance period for free cyanide.

X. DRAFT PERMIT RATIONALE

The following section sets forth the statutory and regulatory requirements considered in preparing the draft permit. Also set forth are any calculations or other necessary explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guidelines and water quality standards.

A. REASON FOR PERMIT ISSUANCE

The applicant applied to the TCEQ for a renewal of TPDES Permit No. WQ0000002000, which authorizes the discharge of process wastewater (including process wastewater from the adjacent BASF facility), utility wastewater (including utility wastewater from the adjacent BASF, Houston Ammonia Terminal, and Aurora Plastics facilities), domestic wastewater, and stormwater (including stormwater from the adjacent BASF, Houston Ammonia Terminal, and Aurora Plastics facilities) at a daily average flow not to exceed 4.0 MGD via Outfall 001.

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.

B. WATER QUALITY SUMMARY

Discharge Route(s)
The discharge route is directly to the Houston Ship Channel Tidal in Segment No. 1006 of the San Jacinto River Basin. The designated uses for Segment No. 1006 are navigation and industrial water supply. Effluent limitations and conditions established in the draft permit comply with state water quality standards and the applicable water quality management plan. The effluent limits in the draft permit will maintain and protect the existing instream uses. Additional discussion of the water quality aspects of the draft permit can be found at Section X.D. of this fact sheet.

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; 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's 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. 1006 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 elevated bacteria in Goodyear Creek from confluence with Greens Bayou Tidal to Granada Street (ST.) in Harris County (Assessment Unit (AU) 1006_05). The segment is also listed for dioxin and polychlorinated biphenyls (PCBs) in edible tissue in Houston Ship Channel Tidal-From the Greens Bayou confluence to the Patrick Bayou confluence (AU 1006_01); Houston Ship Channel Tidal-From the Patrick Bayou confluence to the Houston Ship Channel/San Jacinto River Tidal (1005) confluence (AU 1006_02); Greens Bayou Tidal-From the Houston Ship Channel confluence to a point 0.7 km (0.4 mi) upstream of the Halls Bayou confluence (AU 1006_03); Patrick Bayou Tidal - From the confluence with the Houston Ship Channel to 100 m (328 ft) upstream of the railroad bridge (AU 1006_04); Goodyear Creek-From confluence with Greens Bayou Tidal to Granada St. in Harris County (AU 1006_05); Tucker Bayou- From the Houston Ship Channel confluence to a point 2.7 km (1.7 mi) upstream (AU 1006_06); Carpenters Bayou-From the Houston Ship Channel confluence to the lower boundary of 1006B (2.3 m/ 1.4 mi) upstream from the Houston Ship Channel confluence) (AU 1006_07). In addition, the segment is listed for toxicity in sediment in Patrick Bayou Tidal (AU 1006_04).

Discharge from Outfall 001 includes treated domestic wastewater. The draft permit includes a daily average limit of 35 cfu/100 mL and a daily maximum limit of 104 cfu/100 mL for Enterococci at Outfall 001; these limits are equal to the saltwater criteria for primary contact recreation. Therefore, this permit action is not expected to contribute to the bacteria impairment in Goodyear Creek.

Data submitted with the application showed that PCBs were not detected in the effluent at or above the MAL. This permit action is therefore not expected to contribute to the PCBs impairment in Segment No. 1006.

Information submitted in Worksheet 2.0, Table 12 of the Technical Report of the application indicated that the facility has no reason to believe that dioxin or its congeners may be present in its effluent. Therefore, this permit action is not expected to contribute to the dioxin impairment in Segment No. 1006.

The discharge is directly into the Houston Ship Channel Tidal (AU 1006_01) and not into Patrick Bayou Tidal (AU 1006_04), and the permit action will not authorize any increase in flow or loading of toxic pollutants. The draft permit also includes whole effluent toxicity testing, which directly measures the aggregate toxicity of the wastewater. For these reasons, this permit action is not expected to contribute to the toxicity in sediment impairment.

Completed Total Maximum Daily Loads (TMDLs)

The TMDL project *Fourteen Total Maximum Daily Loads for Nickel in the Houston Ship Channel System* (TMDL Project No. 1) has been withdrawn and is no longer applicable.

C. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. GENERAL COMMENTS

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.

The draft permit authorizes the discharge of process wastewater (including process wastewater from the adjacent BASF facility), utility wastewater (including utility wastewater from the adjacent BASF, Houston Ammonia Terminal, and Aurora Plastics facilities), domestic wastewater, and stormwater (including stormwater from the adjacent BASF, Houston Ammonia Terminal, and Aurora Plastics facilities) at a daily average flow not to exceed 4.0 MGD via Outfall 001.

The discharge of process wastewater (from on-site and off-site sources) via Outfall 001 from this facility is subject to federal effluent limitation guidelines at 40 CFR Part 414. A new source determination was performed, and this discharge is not a new source as defined at 40 CFR §122.2. Therefore new source performance standards (NSPS) are not required for this discharge.

The discharge of utility wastewater (from on-site and off-site sources) and stormwater via Outfall 001 is not subject to federal effluent limitation guidelines and any technology-based effluent limitations are based on best professional judgment.

The discharge of domestic wastewater is subject to effluent limitations in 30 TAC Chapter 309.

The Oxy Vinyls, LP – Pasadena PVC Plant was originally operated by Tenneco Chemicals, Inc. and consist of fourteen polyvinyl chloride (PVC) reactors. In the manufacturing process, vinyl chloride monomer (VCM) is mixed with water, suspending agents, and initiators in reactors where polymerization occurs under design conditions. The resulting slurry of polymer (PVC resin) and water is stripped of unreacted VCMs. Water and PVC resin are separated by centrifuge. PVC resin is then dried and stored for shipment via railcar and truck and the resulting wastewater is pumped to biological treatment.

All process wastewater receives the following types of treatment:

- Primary treatment
    - pH control – one above ground tanks with a total volume of 100,000 gallons
    - equalization – six ponds as follows:

Pond	Volume (gallons)
1	180,000
2	1,300,000
3	650,000

4	550,000
5	2,470,000
6	600,000

- secondary treatment
    - aerated activated sludge – two 60-foot-diameter by 12.5-foot-deep tanks and one 75-foot-diameter by 12.5-foot-deep tank
    - clarification – two 68-foot-diameter by 10-foot-deep tanks and one 80-foot-diameter by 10-foot-deep tank
- tertiary treatment
    - multi-media filtration – three 20-foot-diameter by 10-foot-deep tanks
    - anaerobic digestion – one lagoon

Utility wastewater may be routed to any of the six equalization ponds or directly to Outfall 001.

Domestic wastewater receives primary treatment through the activated sludge process – extended aeration, secondary treatment through clarification, and disinfection prior to commingling with other wastewaters. Domestic wastewater is routed via traditional piping (*i.e.*, sewer lines), or for remote locations (*e.g.*, at the guard shack), domestic wastewater is collected in underground tanks then pumped out and transported to the sanitary package plant for treatment.

Stormwater from Oxy Vinyls, LP, Houston Ammonia Terminal, and BASF facilities flows to a stormwater retention pond and may be commingled with treated wastewaters and untreated utility wastewater prior to discharge via Outfall 001. Contaminated stormwater is routed through the wastewater treatment facilities prior to discharge via Outfall 001.

2. CALCULATIONS

See Appendix A of this fact sheet for calculations and further discussion of technology-based effluent limitations proposed in the draft permit.

3. 316(B) COOLING WATER INTAKE STRUCTURES

a. SCREENING

The facility obtains water for cooling purposes from an independent supplier, Coastal Water Authority, which owns and operates a cooling water intake structure (CWIS) located on the Trinity River, in Harris County.

Based on requirements at 40 CFR §125.91(a), an existing facility is considered above the threshold for applicability under Section 316(b) of the CWA if it meets all three for the following criteria: 1) the facility uses a CWIS with a cumulative design intake flow greater than 2 MGD; 2)

25% or more of the water withdrawn is used for cooling purposes; and 3) water is withdrawn from waters of the United States. If a facility does not meet the threshold for applicability under Section 316(b) of the CWA, the facility is subject to the basis of BPJ, per the requirements of 40 CFR §125.90(b).

0.72% of the independent supplier's CWIS actual intake flow (AIF) is used for cooling purposes within the facility. This facility is considered below the threshold for applicability and is subject on the basis of BPJ.

Cooling water withdrawn from the independent supplier is utilized in (a) cooling tower(s), a form of closed-cycle cooling. The CWIS is operated in a manner consistent with closed-cycle recirculating system (CCRS) as defined at 40 CFR §125.92(c), minimizing surface water withdrawals for make-up purpose only.

Rulemaking for Section 316(b) of the CWA considered cooling towers to be the most effective impingement mortality and entrainment technology available because the use of cooling towers dramatically reduces surface water withdrawals. Additionally, the EPA could not identify any other technology which more effectively reduced rates of impingement mortality or rates of entrainment. Therefore, when a cooling water system exclusively uses cooling towers, all factors required for the executive director to review under 40 CFR §125.98(f)(2) are given a weight of zero because the information collected by the requirements would not provide the executive director with any additional information of value.

The operation of a CCRS (i.e., cooling towers) reduces withdrawals from surface waters effectively, thereby reducing the impingement and entrainment of aquatic organisms. The facility meets Best Technology Available (BTA) standards based upon BPJ. The executive director will review this determination upon receipt of additional information in accordance with 40 CFR §122.21(r); 40 CFR Part 125, Subpart J; or both; as applicable.

b. PERMIT ACTION

The Other Requirement No. 3 was revised and require(s) the permittee to notify the TCEQ of any changes in the operation and maintenance of the cooling water system or in the method by which cooling water is obtained. Upon receipt of such notification, the TCEQ may reopen the permit to include additional terms and conditions as necessary.

D. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. GENERAL COMMENTS

The *Texas Surface Water Quality Standards* found at 30 TAC Chapter 307 state that surface waters will not be toxic to man from ingestion of water, consumption of aquatic organisms, or contact with the skin, or to terrestrial or aquatic life. The

methodology outlined in the TCEQ guidance document *Procedures to Implement the Texas Surface Water Quality Standards* (IPs) is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health. Calculated water quality-based effluent limits can be found in Appendix B of this fact sheet.

TPDES permits contain technology-based effluent limits reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations or conditions are included. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other toxicity databases to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls. A comparison of technology-based effluent limits and calculated water quality-based effluent limits can be found in Appendix D of this fact sheet.

2. AQUATIC LIFE CRITERIA

a. SCREENING

Water quality-based effluent limitations are calculated from saltwater aquatic life criteria found in Table 1 of the *Texas Surface Water Quality Standards* (30 TAC Chapter 307).

Acute saltwater criteria are applied at the edge of the zone of initial dilution (ZID), and chronic saltwater criteria are applied at the edge of the aquatic life mixing zone. The ZID for this discharge is defined as a volume within a radius of 50 feet from the point where the discharge enters the Houston ship Channel Tidal. The aquatic life mixing zone for this discharge is defined as a volume within a radius of 200 feet from the point where the discharge enters the Houston Ship Channel Tidal.

TCEQ practice is to establish minimum estimated effluent percentages at the edges of the ZID and aquatic life mixing zone for discharges that are 10 MGD or less into bays, estuaries, or wide tidal rivers that are at least 400 feet wide. These critical effluent percentages are as follows:

Acute Effluent %	30%	Chronic Effluent %	8%

General Screening Procedures

Wasteload allocations (WLAs) are calculated using the above estimated effluent percentages, criteria outlined in the *Texas Surface Water Quality Standards*, and partitioning coefficients for metals (when appropriate and designated in the implementation procedures). The WLA is the end-of-pipe effluent concentration that can be discharged when, after mixing in the receiving stream, the instream numerical criteria will not be exceeded.

From the WLA, a long-term average (LTA) is calculated using a lognormal probability distribution, a given coefficient of variation (0.6), and a 99th percentile confidence level. The LTA is the long-term average effluent concentration for which the WLA will never be exceeded using a selected percentile confidence level.

The lower of the two LTAs (acute and chronic) is used to calculate a daily average and daily maximum effluent limitation for the protection of aquatic life using the same statistical considerations with the 99th percentile confidence level and a standard number of monthly effluent samples collected (12).

Assumptions used in deriving the effluent limitations include the segment-specific value for TSS according to the *IPs*. The segment value is 9 mg/L for TSS. For additional details on the calculation of water quality-based effluent limitations, refer to the *IPs*.

TCEQ practice for determining significant potential is to compare the reported analytical data against percentages of the calculated daily average water quality-based effluent limitation. Permit limitations are required when analytical data reported in the application equals or 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 equals or exceeds 70 percent of the calculated daily average water quality-based effluent limitation.

b. PERMIT ACTION

Analytical data reported in the application was screened against calculated water quality-based effluent limitations for the protection of aquatic life. Reported analytical data for free cyanide exceed(s) 85 percent of the calculated daily average water quality-based effluent limitation for aquatic life protection.

Existing effluent limitations for total copper, total zinc, total nickel, and phenanthrene were compared against the calculated water quality-based effluent limitations to determine whether the existing limits are still protective. The new calculated daily average and daily maximum effluent concentrations for total zinc are more protective and have been included in the draft permit. The new calculated daily average concentration effluent limitation for phenanthrene is more protective than the existing effluent limitation and has been included in the draft permit. The existing effluent limitations for total copper and total nickel are as protective as the new calculated water quality-based effluent limitation and are continued in the draft permit.

A site-specific water-effect-ratio of 1.8 was used for total copper based on 30 TAC Chapter 307, Appendix E for Segment No. 1006.

An interim three-year compliance period for free cyanide is included in the draft permit in accordance with 30 TAC § 307.2(f). The interim compliance period will give the applicant time to evaluate potential options to attain final effluent limitations.

3. WHOLE EFFLUENT TOXICITY (BIOMONITORING) CRITERIA (7-DAY CHRONIC)

a. SCREENING AND REASONABLE POTENTIAL ANALYSIS

The existing permit includes chronic marine biomonitoring requirements at Outfall 001. In the past three years, the permittee has performed twenty-two chronic tests, with zero demonstrations of significant toxicity (i.e., zero failures)

A reasonable potential determination was performed in accordance with 40 CFR 122.44(d)(1)(ii) to determine whether the discharge will reasonably be expected to cause or contribute to an exceedance of a state water quality standard or criterion within that standard. Each test species is evaluated separately. The reasonable potential determination is based on representative data from the previous three years of whole effluent toxicity testing. This determination was performed in accordance with the methodology outlined in the TCEQ letter to EPA dated December 28, 2015, and approved by the EPA in a letter dated December 28, 2015.

With zero failures, a determination of no reasonable potential was made. Whole effluent toxicity limits are not required and the permittee may be eligible for the testing frequency reduction after one year of quarterly testing.

b. PERMIT ACTION

The provisions of this section apply to Outfall 001.

Based on information contained in the permit application, the TCEQ has determined that there may be pollutants present in the effluent(s) that may have the potential to cause toxic conditions in the receiving stream.

Whole effluent toxicity testing (biomonitoring) is the most direct measure of potential toxicity, which incorporates the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity. The biomonitoring procedures stipulated as a condition of this permit are as follows:

i) Chronic static renewal 7-day survival and growth test using the mysid shrimp (*Americamysis bahia*). The frequency of the testing shall be once per quarter.

ii) Chronic static renewal 7-day larval survival and growth test using the inland silverside (*Menidia beryllina*). The frequency of the testing shall be once per quarter.

Toxicity tests shall be performed in accordance with protocols described in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms,* Third Edition (EPA-821-R-02-014) or the latest revision. The stipulated test

species are appropriate to measure the toxicity of the effluent consistent with the requirements of the state water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge.

This permit may be reopened to require effluent limits, additional testing, or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body.

If none of the first four consecutive quarterly tests demonstrates significant lethal or sublethal effects, the permittee may submit this information in writing and, upon approval, reduce the testing frequency to once per six months for the invertebrate test species and once per year for the vertebrate test species. If one or more of the first four consecutive quarterly tests demonstrates significant sublethal effects, the permittee is required by the permit to continue quarterly testing for that species until four consecutive quarterly tests demonstrate no significant sublethal effects. At that time, the permittee may apply for the appropriate testing frequency reduction for that species. If one or more of the first four consecutive quarterly tests demonstrates significant lethal effects, the permittee is required by the permit to continue quarterly testing for that species until the permit is reissued.

c. DILUTION SERIES

The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 3%, 5%, 6%, 8%, and 11%. The low-flow effluent concentration (critical dilution) is defined as 8% effluent.

The dilution series outlined above was calculated using a 0.75 factor applied to the critical dilution. The critical dilution is the estimated effluent dilution at the edge of the aquatic life mixing zone, which is discussed in Section X.D.2.a. of this fact sheet.

4. AQUATIC ORGANISM TOXICITY CRITERIA (24-HOUR ACUTE)

a. SCREENING

The existing permit includes 24-hour acute marine biomonitoring requirements for Outfall 001. In the past three years, the permittee has performed twelve 24-hour acute tests, with zero demonstrations of significant lethality (i.e., zero failures). Minimum 24-hour acute marine biomonitoring requirements are proposed in the draft permit as outlined below.

b. PERMIT ACTION

Twenty-four-hour 100% acute biomonitoring tests are required at Outfall 001 at a frequency of once per six months for the life of the permit.

The biomonitoring procedures stipulated as a condition of this permit are as follows:

i) Acute 24-hour static toxicity test using the mysid shrimp (*Americamysis bahia*). A minimum of five (5) replicates with eight (8) organisms per replicate shall be used for this test.

ii) Acute 24-hour static toxicity test using the inland silverside (*Menidia beryllina*). A minimum of five (5) replicates with eight (8) organisms per replicate shall be used for this test.

Toxicity tests shall be performed in accordance with protocols described in *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition (EPA-821-R-02-012) or the latest revision.

5. AQUATIC ORGANISM BIOACCUMULATION CRITERIA

a. SCREENING

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of fish tissue found in Table 2 of the *Texas Surface Water Quality Standards* (30 TAC Chapter 307).

Fish tissue bioaccumulation criteria are applied at the edge of the human health mixing zone for discharges into bays, estuaries and wide tidal rivers. The human health mixing zone for this discharge is defined as a volume within a radius of 400 feet from the point where the discharge enters the Houston Ship Channel Tidal. TCEQ practice is to establish a minimum estimated effluent percentage at the edge of the human health mixing zone for discharges that are 10 MGD or less into bays, estuaries, and wide tidal rivers that are at least 400 feet wide. This critical effluent percentage is:

Human Health Effluent %: 4%

Water quality-based effluent limitations for human health protection against the consumption of fish tissue are calculated using the same procedure as outlined for calculation of water quality-based effluent limitations for aquatic life protection. A 99th percentile confidence level in the long-term average calculation is used, with only one long-term average value being calculated.

Significant potential is again determined by comparing reported analytical data against 70 percent and 85 percent of the calculated daily average water quality-based effluent limitation.

b. PERMIT ACTION

Analytical data reported in the application was screened against calculated water quality-based effluent limitations for the protection of human health. Reported analytical data does not exceed 70 percent of the

calculated daily average water quality-based effluent limitation for human health protection. No additional limits or monitoring and reporting requirements have been added to the draft permit.

The limits in the existing permit were compared to the calculated water quality-based effluent limits to determine whether the existing limits are still protective. The existing limits for benzo(a)anthracene, benzo(a)pyrene, hexachlorobenzene, and hexachlorobutadiene are less stringent than the calculated water quality-based limits. The new calculated effluent limitations have been included in the draft permit for these parameters. Based on the self-reported data these parameters were non-detect; therefore, no compliance period was included in the draft permit.

6. DRINKING WATER SUPPLY PROTECTION

a. SCREENING

Segment No. 1006, which receives the discharge from this facility, is not designated as a public water supply. Screening reported analytical data of the effluent against water quality-based effluent limitations calculated for the protection of a drinking water supply is not applicable.

b. PERMIT ACTION

None.

7. TOTAL DISSOLVED SOLIDS, CHLORIDE, AND SULFATE STANDARDS PROTECTION

a. SCREENING

Segment No. 1006, which receives the discharge from this facility, 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.

b. PERMIT ACTION

None.

8. PROTECTION OF pH STANDARDS

a. SCREENING

The existing permit includes pH limits of 6.0 SU – 9.0 SU at Outfall 001, which discharges directly into Houston Ship Channel Tidal, Segment No. 1006. Screening was performed to ensure that these existing pH limits would not cause a violation of the 6.5 SU – 9.0 SU pH criteria for Houston Ship Channel Tidal (see Appendix C).

b. PERMIT ACTION

The existing effluent limits of 6.0 SU – 9.0 SU are adequate to ensure that the discharge will not violate the pH criteria in Houston Ship Channel Tidal.

9. DISSOLVED OXYGEN PROTECTION

a. SCREENING

A dissolved oxygen modeling analysis was previously performed for this permit on March 5, 2019. Applicable water body uses and criteria, proposed permitted flow conditions, and modeling analytical procedures pertaining to this discharge situation remain unchanged from the previous review. The existing permitted effluent set of 500.4 lbs/day BOD_5 and 100.1 lbs/day NH_3-N is consistent with *WLE-1R for the Houston Ship Channel System (September 2006)* and applicable to this permit.

b. PERMIT ACTION

The existing limits for BOD_5 (daily average = 500.4 lbs/day) and ammonia nitrogen (daily average = 100.1 lbs/day) have been carried forward in the draft permit.

10. BACTERIA STANDARDS PROTECTION

a. SCREENING

The existing permit includes limits on Enterococci at Outfall 001 based on the presence of treated domestic wastewater in the effluent.

b. PERMIT ACTION

The existing Enterococci limits (daily average = 35 cfu or MPN/100 mL and daily maximum = 104 cfu or MPN/100 mL) have been carried forward in the draft permit.

11. THERMAL STANDARDS PROTECTION

a. SCREENING

The existing permit includes a daily maximum temperature limit of 105 ° F. A thermal screening was conducted for this permit application using TCEQ's draft thermal screening procedures which were authorized for use as a standard operating procedure (SOP) by EPA on April 1, 2020. There are two thermal criteria applicable to this proposed discharge – thermal maximum and maximum temperature differential (rise over ambient). Thermal screening calculations demonstrate that at the daily maximum effluent temperature limit of 105 °F, both criteria will be met at the edge of the chronic aquatic life mixing zone. Therefore, no additional permit limits for temperature are needed at this time.

b. PERMIT ACTION

The existing Temperature limit (daily maximum = 105 °F) has been carried forward in the draft permit.

XI. PRETREATMENT REQUIREMENTS

This facility is not defined as a publicly owned treatment works. Pretreatment requirements are not proposed in the draft permit.

XII. VARIANCE REQUESTS

No variance requests have been received.

XIII. 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, along with the Executive Director's preliminary decision, as contained in the technical summary or fact sheet, to the Chief Clerk. 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 proceeding.

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.

For additional information about this application, contact Mónica Vallin-Báez at (512) 239-5784.

XIV. ADMINISTRATIVE RECORD

The following section is a list of the fact sheet citations to applicable statutory or regulatory provisions and appropriate supporting references.

A. PERMIT(S)

TPDES Permit No. WQ0000002000 issued on October 21, 2019.

B. APPLICATION

TPDES wastewater permit application received on April 16, 2024 and additional information received on March 7, 2025 and March 10, 2025.

C. 40 CFR CITATION(S)

40 CFR Part 414, Subparts D, G, H, and I (BPT, BCT, BAT).

D. LETTERS/MEMORANDA/RECORDS OF COMMUNICATION

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).

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).

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).

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).

Letter dated December 28, 2015, from L'Oreal Stepney, P.E., Deputy Director, Office of Water, TCEQ, to Bill Honker, Director, Water Quality Protection Division, EPA (TCEQ proposed development strategy for procedures to determine reasonable potential for whole effluent toxicity limitations).

Letter dated December 28, 2015, 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 procedures to determine reasonable potential for whole effluent toxicity limitations).

TCEQ Interoffice Memorandum dated May 16, 2024 (Superseded March 6, 2025), from Jeff Paull of the Standards Implementation Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Standards Memo).

TCEQ Interoffice Memorandum dated May 28, 2024, from Josi Robertson of the Water Quality Assessment Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Critical Conditions Memo).

TCEQ Interoffice Memorandum dated May 29, 2024, from Xing Lu, P.E. of the Water Quality Assessment Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Modeling Memo).

TCEQ Interoffice Memorandum dated May 29, 2024, from Michael B. Pfeil of the Standards Implementation Team, Water Quality Assessment Section, to the Industrial Permits Team, Wastewater Permitting Section (Biomonitoring Memo).

Electronic mail dated March 10, 2025, from Cydney Schwarzlose, BGE, Inc., to Monica Baez of the Industrial Permits Team, Wastewater Permitting Section (Analytical Data Clarification).

Electronic mail dated March 7, 2025, from Zach Oliver, Environmental Engineer, Oxy Vinyls, LP – Pasadena/Deer Park PVC, to Monica Baez of the Industrial Permits Team, Wastewater Permitting Section (Cooling Water Intake Structure).

Electronic mail dated March 7, 2025, from Monica Baez of the Industrial Permits Team, Wastewater Permitting Section, to Zach Oliver, Environmental Engineer, Oxy Vinyls, LP – Pasadena/Deer Park PVC (Cooling Water Intake Structure).

E. MISCELLANEOUS

The *State of Texas 2022 Integrated Report* – Texas 303(d) List (Category 5), TCEQ, July 7, 2022.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective March 1, 2018, as approved by EPA Region 6.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective March 6, 2014, as approved by EPA Region 6, for portions of the 2018 standards not approved by EPA Region 6.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective July 22, 2010, as approved by EPA Region 6, for portions of the 2014 standards not yet approved by EPA Region 6.

Texas Surface Water Quality Standards, 30 TAC §§307.1 - 307.10, TCEQ, effective August 17, 2000, and Appendix E, effective February 27, 2002, for portions of the 2010 standards not yet approved by EPA Region 6.

Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms, Third Edition (EPA-821-R-02-014).

Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition (EPA-821-R-02-012).

Procedures to Implement the Texas Surface Water Quality Standards, TCEQ, June 2010, as approved by EPA Region 6.

Procedures to Implement the Texas Surface Water Quality Standards, TCEQ, January 2003, for portions of the 2010 IPs not approved by EPA Region 6.

Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits, TCEQ Document No. 98-001.000-OWR-WQ, May 1998.

Appendix A
Calculated Technology-Based Effluent Limits

Description of Waste Streams

The draft permit authorizes the discharge of process wastewater (including process wastewater from the adjacent BASF facility), utility wastewater (including utility wastewater from the adjacent BASF, Houston Ammonia Terminal, and Aurora Plastics facilities), domestic wastewater, and stormwater (including stormwater from the adjacent BASF, Houston Ammonia Terminal, and Aurora Plastics facilities) at a daily average flow not to exceed 4.0 MGD via Outfall 001.

New Source Determination

A new source determination was performed, and the discharge of process wastewater is not considered a new source as defined in 40 CFR § 122.2. Therefore, new source performance standards are not required, and BAT[1], BCT[2] (reserved), and BPT[3] were used to develop technology-based effluent limits.

The discharge of treated process wastewater via Outfall 001 from this facility is subject to the following federal effluent limitations guidelines (ELGs):

40 CFR Part 414 – Organic Chemicals, Plastics, and Synthetic Fibers

Subpart D (*Thermoplastic Resins*) – 40 CFR § 414.41 (BPT)

Subpart G (*Bulk Organic Chemicals*) – 40 CFR § 414.71 (BPT)

Subpart H (*Specialty Organic Chemicals*) – 40 CFR § 414.81 (BPT)

Subpart I (*Direct Discharge Point Sources That Use End-of-Pipe Biological Treatment*) – 40 CFR § 414.91 (BAT)

Outfall 001

Conventional Pollutants – BOD_5, TSS, and pH

40 CFR Part 414 Process Wastewater Allocations

Based on information provided in the permit application, the flow fractions subject to Subparts D, G, and H are as follows:

40 CFR Part 414 Process Flow Fraction

Subpart	Flow Fraction	Flow (MGD)
D – Thermoplastic Resins	0.88	1.91
G – Bulk Organic Chemicals	0.03	0.068
H – Specialty Organic Chemicals	0.09	0.205
Total =	1.00	2.18

The flows subject to the individual subparts were calculated by multiplying the flow fraction for each subpart by 2.18 MGD, the total flow subject to 40 CFR Part 414.

[1] BAT: Best Available Technology Economically Achievable
[2] BCT: Best Conventional Pollutant Control Technology
[3] BPT: Best Practicable Control Technology Currently Available

The applicable concentration limits from 40 CFR Part 414 are as follows:

40 CFR 414	Effluent Limitations			
	BOD_5		TSS	
Subcategory	**Dly Avg, mg/L**	**Dly Max, mg/L**	**Dly Avg, mg/ L**	**Dly Max, mg/L**
Subpart D	24	64	40	130
Subpart G	34	92	49	159
Subpart H	45	120	57	183

The pH for the Subparts D, G, and H are within the range of 6.0 SU to 9.0 SU at all times.

The mass allocations for these waste streams are calculated as follows:

Dly Avg (lbs/day) = [Dly Avg (mg/L)] × [wastewater flow (MGD)] × 8.345

Dly Max (lbs/day) = [Dly Max (mg/L)] × [wastewater flow (MGD)] × 8.345

where 8.345 is a conversion factor.

Subpart D – 40 CFR § 414.41:

BOD_5 Dly Avg	=	24 mg/L	×	1.91 MGD	×	8.345	=	382.53 lbs/day
BOD_5 Dly Max	=	64 mg/L	×	1.91 MGD	×	8.345	=	1020.09 lbs/day
TSS Dly Avg	=	40 mg/L	×	1.91 MGD	×	8.345	=	637.56 lbs/day
TSS Dly Max	=	130 mg/L	×	1.91 MGD	×	8.345	=	2072.06 lbs/day

Subpart G – 40 CFR § 414.71:

BOD_5 Dly Avg	=	34 mg/L	×	0.068 MGD	×	8.345	=	19.29 lbs/day
BOD_5 Dly Max	=	92 mg/L	×	0.068 MGD	×	8.345	=	52.21 lbs/day
TSS Dly Avg	=	49 mg/L	×	0.068 MGD	×	8.345	=	27.81 lbs/day
TSS Dly Max	=	159 mg/L	×	0.068 MGD	×	8.345	=	90.23 lbs/day

Subpart H – 40 CFR § 414.81:

BOD_5 Dly Avg	=	45 mg/L	×	0.205 MGD	×	8.345	=	76.98 lbs/day
BOD_5 Dly Max	=	120 mg/L	×	0.205 MGD	×	8.345	=	205.29 lbs/day
TSS Dly Avg	=	57 mg/L	×	0.205 MGD	×	8.345	=	97.51 lbs/day
TSS Dly Max	=	183 mg/L	×	0.205 MGD	×	8.345	=	313.06 lbs/day

Sum of Mass Allocations for Wastewater Subject to 40 CFR Part 414 (BOD_5 and TSS)

BOD_5 Daily Average

Subpart D Process Wastewater	=	382.53 lbs/day
Subpart G Process Wastewater	=	19.29 lbs/day
Subpart H Process Wastewater	=	76.98 lbs/day
Total	=	478.8 lbs/day

BOD_5 Daily Maximum

Subpart D Process Wastewater	=	1020.09 lbs/day
Subpart G Process Wastewater	=	52.21 lbs/day
Subpart H Process Wastewater	=	205.29 lbs/day
Total	=	1,277.59 lbs/day

TSS Daily Average

Subpart D Process Wastewater	=	637.56 lbs/day
Subpart G Process Wastewater	=	27.81 lbs/day
Subpart H Process Wastewater	=	97.51 lbs/day
Total	=	762.88 lbs/day

TSS Daily Maximum

Subpart D Process Wastewater	=	2072.06 lbs/day
Subpart G Process Wastewater	=	90.23 lbs/day
Subpart H Process Wastewater	=	313.06 lbs/day
Total	=	2,475.35 lbs/day

Utility Wastewater Allocations

Allocations for utility wastewaters were calculated using the same concentration estimates that were used in the development of the existing permit. The mass allocations for these waste streams are calculated as follows:

Dly Avg (lbs/day) = [Dly Avg (mg/L)] × [wastewater flow (MGD)] × 8.345

Dly Max (lbs/day) = [Dly Max (mg/L)] × [wastewater flow (MGD)] × 8.345

where wastewater flow is equal to 0.486 MGD[4], and 8.345 is a conversion factor.

Pollutant	Dly Avg (mg/L)	Dly Max (mg/L)	Dly Avg (lbs/day)	Dly Max (lbs/day)
BOD_5	20	40	81.11	162.23
TSS	30	100	121.67	405.57
pH	Between 6.0 SU and 9.0 SU			

Domestic Wastewater Allocations

Allocations for domestic wastewater were calculated based on the requirements of 30 TAC Chapter 309 as shown in the table below. The mass allocations for domestic wastewater are calculated as follows:

Dly Avg (lbs/day) = [Dly Avg (mg/L)] × [wastewater flow (MGD)] × 8.345

Dly Max (lbs/day) = [Dly Max (mg/L)] × [wastewater flow (MGD)] × 8.345

where wastewater flow is equal to 0.0072 MGD, the domestic wastewater flow[5], and 8.345 is a conversion factor.

Pollutant	Effluent Limits (mg/L)		Mass Allocations (lbs/day)	
	Dly Avg, mg/L	Dly Max, mg/L	Dly Avg, lbs/day	Dly Max, lbs/day
BOD_5	20	45	1.20	2.70
TSS	20	45	1.20	2.70
pH	Between 6.0 SU and 9.0 SU			

4 0.486 MGD = 0.13 MGD (cooling tower blowdown, Oxy) + 0.05 (boiler blowdown, Oxy) + 0.086 (cooling tower blowdown, BASF) + 0.22 MGD (demineralized regeneration water).

5 See Attachment E – Flow Diagram of the permit application. Flow from the domestic sewer is 5 gallons per minute, which equals 0.0072 MGD.

Allocation Summations

BOD_5

Waste Stream	Daily Average, lbs/day	Daily Maximum, lbs/day
Process Wastewater	478.8	1,277.59
Utility Wastewater	81.11	162.23
Domestic Wastewater	1.20	2.70
Total =	561.11	1,442.52

TSS

Waste Stream	Daily Average, lbs/day	Daily Maximum, lbs/day
Process Wastewater	762.88	2,475.35
Utility Wastewater	121.67	405.57
Domestic Wastewater	1.20	2.70
Total =	885.75	2,883.62

Conventional Pollutants – Oil and Grease

The existing permit includes mass limits on oil and grease that were developed using the following concentrations:

Daily Average = 10 mg/L
Daily Maximum = 15 mg/L

Using the highest monthly average flow for the last two years of 3.2 MGD, the recalculated mass limits are as follows:

Daily Average = 10 mg/L × 3.2 MGD × 8.345 = 267 lbs/day
Daily Maximum = 15 mg/L × 3.2 MGD × 8.345 = 401 lbs/day

Conventional Pollutants – COD

The existing permit includes mass limits on COD that were developed for the permit issued in 2008. This permit is a renewal, so the existing limits have been carried forward in the draft permit based on EPA anti-backsliding requirements in 40 CFR § 122.44(l).

Daily Average = 2,149 lbs/day
Daily Maximum = 4,235 lbs/day

Priority Pollutants

The total flow used to develop mass allocations under 40 CFR Part 414, Subpart I is 2.18 MGD. Based on the permit application, there are no metal-bearing or cyanide-bearing waste streams.

Total Permitted Daily Average Flow from Outfall 001:	4.0 MGD
Subpart I Process Wastewater Flow:	2.18 MGD
Metal-Bearing Wastewater Flow:	0 MGD
Cyanide-Bearing Wastewater Flow:	0 MGD

Mass allocations for the toxic pollutants limited in Subpart I were calculated as follows:

Dly Avg (lbs/day) = [Dly Avg (µg/L)/1000] × [2.18 MGD] × 8.345

Dly Max (lbs/day) = [Dly Max (µg/L)/1000)] × [2.18 MGD] × 8.345

Single Grab (mg/L) = [Dly Max (µg/L)/1000] × 1.5 × [2.18 MGD/4.0 MGD]

Parameter	Daily Avg (µg/L)	Daily Max (µg/L)	Daily Avg (lbs/day)	Daily Max (lbs/day)	Single Grab (mg/L)
Acenaphthene	22	59	0.400	1.07	0.048
Acenaphthylene	22	59	0.400	1.07	0.048
Acrylonitrile	96	242	1.75	4.40	0.198
Anthracene	22	59	0.400	1.07	0.048
Benzene	37	136	0.673	2.47	0.111
Benzo(*a*)anthracene	22	59	0.400	1.07	0.048
3,4-Benzofluoranthene	23	61	0.418	1.11	0.050
Benzo(*k*)fluoranthene	22	59	0.400	1.07	0.048
Benzo(*a*)pyrene	23	61	0.418	1.11	0.050
Bis(2-ethylhexyl) phthalate	103	279	1.87	5.08	0.228
Carbon Tetrachloride	18	38	0.327	0.691	0.031
Chlorobenzene	15	28	0.273	0.509	0.023
Chloroethane	104	268	1.89	4.88	0.219
Chloroform	21	46	0.382	0.837	0.038
2-Chlorophenol	31	98	0.564	1.78	0.080
Chrysene	22	59	0.400	1.07	0.048
Di-*n*-butyl phthalate	27	57	0.491	1.04	0.047
1,2-Dichlorobenzene	77	163	1.40	2.97	0.133
1,3-Dichlorobenzene	31	44	0.564	0.800	0.036
1,4-Dichlorobenzene	15	28	0.273	0.509	0.023
1,1-Dichloroethane	22	59	0.400	1.07	0.048
1,2-Dichloroethane	68	211	1.24	3.84	0.173
1,1-Dichloroethylene	16	25	0.291	0.455	0.020
1,2-trans Dichloroethylene	21	54	0.382	0.982	0.044
2,4-Dichlorophenol	39	112	0.709	2.04	0.092
1,2-Dichloropropane	153	230	2.78	4.18	0.188
1,3-Dichloropropylene	29	44	0.528	0.800	0.036
Diethyl phthalate	81	203	1.47	3.69	0.166
2,4-Dimethylphenol	18	36	0.327	0.655	0.029
Dimethyl phthalate	19	47	0.346	0.855	0.038
4,6-Dinitro-*o*-cresol	78	277	1.42	5.04	0.226

Parameter	Daily Avg (µg/L)	Daily Max (µg/L)	Daily Avg (lbs/day)	Daily Max (lbs/day)	Single Grab (mg/L)
2,4-Dinitrophenol	71	123	1.29	2.24	0.101
2,4-Dinitrotoluene	113	285	2.06	5.18	0.233
2,6-Dinitrotoluene	255	641	4.64	11.7	0.524
Ethylbenzene	32	108	0.582	1.96	0.088
Fluoranthene	25	68	0.455	1.24	0.056
Fluorene	22	59	0.400	1.07	0.048
Hexachlorobenzene	15	28	0.273	0.509	0.023
Hexachlorobutadiene	20	49	0.364	0.891	0.040
Hexachloroethane	21	54	0.382	0.982	0.044
Methyl Chloride	86	190	1.56	3.46	0.155
Methylene Chloride	40	89	0.728	1.62	0.073
Naphthalene	22	59	0.400	1.07	0.048
Nitrobenzene	27	68	0.491	1.24	0.056
2-Nitrophenol	41	69	0.746	1.26	0.056
4-Nitrophenol	72	124	1.31	2.26	0.101
Phenanthrene	22	59	0.400	1.07	0.048
Phenol	15	26	0.273	0.473	0.021
Pyrene	25	67	0.455	1.22	0.055
Tetrachloroethylene	22	56	0.400	1.02	0.046
Toluene	26	80	0.473	1.46	0.065
1,2,4-Trichlorobenzene	68	140	1.24	2.55	0.115
1,1,1-Trichloroethane	21	54	0.382	0.982	0.044
1,1,2-Trichloroethane	21	54	0.382	0.982	0.044
Trichloroethylene	21	54	0.382	0.982	0.044
Vinyl Chloride	104	268	1.89	4.88	0.219

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:	Oxy Vinyls, LP
TPDES Permit No:	WQ0000002000
Outfall No:	001
Prepared by:	Mónica Báez
Date:	March 5, 2025
DISCHARGE INFORMATION	
Receiving Waterbody:	Houston Ship Chanel Tidal
Segment No:	1006
TSS (mg/L):	9
Effluent Flow for Aquatic Life (MGD)	2.9
% Effluent for Chronic Aquatic Life (Mixing Zone):	8
% Effluent for Acute Aquatic Life (ZID):	30
Oyster Waters?	**no**
Effluent Flow for Human Health (MGD):	2.51
% Effluent for Human Health:	4

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

Estuarine Metal	*Intercept (b)*	*Slope (m)*	*Partition Coefficient (Kp)*	*Dissolved Fraction (Cd/Ct)*	*Source*	*Water Effect Ratio (WER)*	*Source*
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	14552.76	0.884		1.80	*
Lead	6.06	-0.85	177375.60	0.385		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	142514.99	0.438		1.00	Assumed
Zinc	5.36	-0.52	73079.22	0.603		1.00	Assumed

*30 TAC Chapter 307, Appendix E

Appendix B
Calculated Water Quality-Based Effluent Limits

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*SW Acute Criterion (µg/L)*	*SW Chronic Criterion (µg/L)*	*WLAa (µg/L)*	*WLAc (µg/L)*	*LTAa (µg/L)*	*LTAc (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Acrolein	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Aldrin	1.3	N/A	4.33	N/A	1.39	N/A	2.03	4.31
Aluminum	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arsenic	149	78	497	975	159	595	233	494
Cadmium	40.0	8.75	133	109	42.7	66.7	62.7	132
Carbaryl	613	N/A	2043	N/A	654	N/A	961	2033
Chlordane	0.09	0.004	0.300	0.0500	0.0960	0.0305	0.0448	0.0948
Chlorpyrifos	0.011	0.006	0.0367	0.0750	0.0117	0.0458	0.0172	0.0364
Chromium (trivalent)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chromium (hexavalent)	1090	49.6	3633	620	1163	378	555	1176
Copper	24.3	6.48	91.6	91.6	29.3	55.9	43.0	91.1
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	18.7	70.0	5.97	42.7	8.78	18.5
4,4'-DDT	0.13	0.001	0.433	0.0125	0.139	0.00763	0.0112	0.0237
Demeton	N/A	0.1	N/A	1.25	N/A	0.763	1.12	2.37
Diazinon	0.819	0.819	2.73	10.2	0.874	6.24	1.28	2.71
Dicofol [Kelthane]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dieldrin	0.71	0.002	2.37	0.0250	0.757	0.0153	0.0224	0.0474
Diuron	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Endosulfan I (*alpha*)	0.034	0.009	0.113	0.113	0.0363	0.0686	0.0533	0.112
Endosulfan II (*beta*)	0.034	0.009	0.113	0.113	0.0363	0.0686	0.0533	0.112
Endosulfan sulfate	0.034	0.009	0.113	0.113	0.0363	0.0686	0.0533	0.112
Endrin	0.037	0.002	0.123	0.0250	0.0395	0.0153	0.0224	0.0474
Guthion [Azinphos Methyl]	N/A	0.01	N/A	0.125	N/A	0.0763	0.112	0.237
Heptachlor	0.053	0.004	0.177	0.0500	0.0565	0.0305	0.0448	0.0948
Hexachlorocyclohexane (*gamma*) [Lindane]	0.16	N/A	0.533	N/A	0.171	N/A	0.250	0.530
Lead	133	5.3	1151	172	368	105	154	326
Malathion	N/A	0.01	N/A	0.125	N/A	0.0763	0.112	0.237
Mercury	2.1	1.1	7.00	13.8	2.24	8.39	3.29	6.96
Methoxychlor	N/A	0.03	N/A	0.375	N/A	0.229	0.336	0.711
Mirex	N/A	0.001	N/A	0.0125	N/A	0.00763	0.0112	0.0237
Nickel	118	13.1	393	164	126	99.9	146	310
Nonylphenol	7	1.7	23.3	21.3	7.47	13.0	10.9	23.2
Parathion (ethyl)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pentachlorophenol	15.1	9.6	50.3	120	16.1	73.2	23.6	50.0
Phenanthrene	7.7	4.6	25.7	57.5	8.21	35.1	12.0	25.5
Polychlorinated Biphenyls [PCBs]	10	0.03	33.3	0.375	10.7	0.229	0.336	0.711
Selenium	564	136	1880	1700	602	1037	884	1870
Silver	2	N/A	15.2	N/A	4.87	N/A	7.15	15.1
Toxaphene	0.21	0.0002	0.700	0.00250	0.224	0.00153	0.00224	0.00474
Tributyltin [TBT]	0.24	0.0074	0.800	0.0925	0.256	0.0564	0.0829	0.175
2,4,5 Trichlorophenol	259	12	863	150	276	91.5	134	284
Zinc	92.7	84.2	512	1745	164	1064	240	509

Appendix B
Calculated Water Quality-Based Effluent Limits

HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*Fish Only Criterion (µg/L)*	*WLAh (µg/L)*	*LTAh (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Acrylonitrile	115	2875	2674	3930	8315
Aldrin	1.147E-05	0.000287	0.000267	0.000392	0.000829
Anthracene	1317	32925	30620	45011	95228
Antimony	1071	26775	24901	36604	77441
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	N/A	N/A	N/A	N/A	N/A
Benzene	581	14525	13508	19857	42010
Benzidine	0.107	2.68	2.49	3.65	7.73
Benzo(*a*)anthracene	0.025	0.625	0.581	0.854	1.80
Benzo(*a*)pyrene	0.0025	0.0625	0.0581	0.0854	0.180
Bis(chloromethyl)ether	0.2745	6.86	6.38	9.38	19.8
Bis(2-chloroethyl)ether	42.83	1071	996	1463	3096
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthala	7.55	189	176	258	545
Bromodichloromethane [Dichlorobromomethane]	275	6875	6394	9398	19884
Bromoform [Tribromomethane]	1060	26500	24645	36228	76645
Cadmium	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	46	1150	1070	1572	3326
Chlordane	0.0025	0.0625	0.0581	0.0854	0.180
Chlorobenzene	2737	68425	63635	93543	197905
Chlorodibromomethane [Dibromochloromethane]	183	4575	4255	6254	13232
Chloroform [Trichloromethane]	7697	192425	178955	263064	556550
Chromium (hexavalent)	502	12550	11672	17157	36298
Chrysene	2.52	63.0	58.6	86.1	182
Cresols [Methylphenols]	9301	232525	216248	317884	672532
Cyanide (free)	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.0500	0.0465	0.0683	0.144
4,4'-DDE	0.00013	0.00325	0.00302	0.00444	0.00939
4,4'-DDT	0.0004	0.0100	0.00930	0.0136	0.0289
2,4'-D	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	473	11825	10997	16165	34201
1,2-Dibromoethane [Ethylene Dibromide]	4.24	106	98.6	144	306
m-Dichlorobenzene [1,3-Dichlorobenzene]	595	14875	13834	20335	43022
o-Dichlorobenzene [1,2-Dichlorobenzene]	3299	82475	76702	112751	238542
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	2.24	56.0	52.1	76.5	161
1,2-Dichloroethane	364	9100	8463	12440	26319
1,1-Dichloroethylene [1,1-Dichloroethene]	55114	1377850	1281401	1883658	3985155
Dichloromethane [Methylene Chloride]	13333	333325	309992	455688	964075
1,2-Dichloropropane	259	6475	6022	8851	18727
1,3-Dichloropropene [1,3-Dichloropropylene]	119	2975	2767	4067	8604
Dicofol [Kelthane]	0.30	7.50	6.98	10.2	21.6
Dieldrin	2.0E-05	0.000500	0.000465	0.000683	0.00144
2,4-Dimethylphenol	8436	210900	196137	288321	609986
Di-*n*-Butyl Phthalate	92.4	2310	2148	3158	6681
Dioxins/Furans [TCDD Equivalents]	7.97E-08	0.0000020	0.0000019	0.0000027	0.0000058
Endrin	0.02	0.500	0.465	0.683	1.44
Epichlorohydrin	2013	50325	46802	68799	145554
Ethylbenzene	1867	46675	43408	63809	134998
Ethylene Glycol	1.68E+07	420000000	390600000	574182000	1214766000

Appendix B
Calculated Water Quality-Based Effluent Limits

HUMAN HEALTH - continued

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*Fish Only Criterion (µg/L)*	*WLAh (µg/L)*	*LTAh (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Fluoride	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.0001	0.00250	0.00233	0.00341	0.00723
Heptachlor Epoxide	0.00029	0.00725	0.00674	0.00991	0.0209
Hexachlorobenzene	0.00068	0.0170	0.0158	0.0232	0.0491
Hexachlorobutadiene	0.22	5.50	5.12	7.51	15.9
Hexachlorocyclohexane (*alpha*)	0.0084	0.210	0.195	0.287	0.607
Hexachlorocyclohexane (*beta*)	0.26	6.50	6.05	8.88	18.7
Hexachlorocyclohexane (*gamma*) [Lindane]	0.341	8.53	7.93	11.6	24.6
Hexachlorocyclopentadiene	11.6	290	270	396	838
Hexachloroethane	2.33	58.3	54.2	79.6	168
Hexachlorophene	2.90	72.5	67.4	99.1	209
4,4'-Isopropylidenediphenol [Bisphenol A]	15982	399550	371582	546224	1155618
Lead	3.83	249	231	339	719
Mercury	0.0250	0.625	0.581	0.854	1.80
Methoxychlor	3.0	75.0	69.8	102	216
Methyl Ethyl Ketone	9.92E+05	24800000	23064000	33904080	71729040
Methyl *tert* -butyl ether [MTBE]	10482	262050	243707	358248	757927
Nickel	1140	28500	26505	38962	82430
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	1873	46825	43547	64014	135431
N-Nitrosodiethylamine	2.1	52.5	48.8	71.7	151
N-Nitroso-di-*n* -Butylamine	4.2	105	97.7	143	303
Pentachlorobenzene	0.355	8.88	8.25	12.1	25.6
Pentachlorophenol	0.29	7.25	6.74	9.91	20.9
Polychlorinated Biphenyls [PCBs]	6.4E-04	0.0160	0.0149	0.0218	0.0462
Pyridine	947	23675	22018	32366	68475
Selenium	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.24	6.00	5.58	8.20	17.3
1,1,2,2-Tetrachloroethane	26.35	659	613	900	1905
Tetrachloroethylene [Tetrachloroethylene]	280	7000	6510	9569	20246
Thallium	0.23	5.75	5.35	7.86	16.6
Toluene	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.275	0.256	0.375	0.795
2,4,5-TP [Silvex]	369	9225	8579	12611	26681
1,1,1-Trichloroethane	784354	19608850	18236231	26807258	56714676
1,1,2-Trichloroethane	166	4150	3860	5673	12003
Trichloroethylene [Trichloroethene]	71.9	1798	1672	2457	5198
2,4,5-Trichlorophenol	1867	46675	43408	63809	134998
TTHM [Sum of Total Trihalomethanes]	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	16.5	413	384	563	1193

Appendix B
Calculated Water Quality-Based Effluent Limits

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	1.42	1.73
Aluminum	N/A	N/A
Arsenic	163	198
Cadmium	43.9	53.3
Carbaryl	672	817
Chlordane	0.0313	0.0381
Chlorpyrifos	0.0120	0.0146
Chromium (trivalent)	N/A	N/A
Chromium (hexavalent)	389	472
Copper	30.1	36.6
Copper (oyster waters)	N/A	N/A
Cyanide (free)	6.14	7.46
4,4'-DDT	0.00784	0.00952
Demeton	0.784	0.952
Diazinon	0.898	1.09
Dicofol [Kelthane]	N/A	N/A
Dieldrin	0.0156	0.0190
Diuron	N/A	N/A
Endosulfan I (*alpha*)	0.0373	0.0453
Endosulfan II (*beta*)	0.0373	0.0453
Endosulfan sulfate	0.0373	0.0453
Endrin	0.0156	0.0190
Guthion [Azinphos Methyl]	0.0784	0.0952
Heptachlor	0.0313	0.0381
Hexachlorocyclohexane (*gamma*) [Lindane]	0.175	0.213
Lead	107	131
Malathion	0.0784	0.0952
Mercury	2.30	2.79
Methoxychlor	0.235	0.285
Mirex	0.00784	0.00952
Nickel	102	124
Nonylphenol	7.68	9.32
Parathion (ethyl)	N/A	N/A
Pentachlorophenol	16.5	20.1
Phenanthrene	8.45	10.2
Polychlorinated Biphenyls [PCBs]	0.235	0.285
Selenium	619	751
Silver	5.01	6.08
Toxaphene	0.00156	0.00190
Tributyltin [TBT]	0.0580	0.0705
2,4,5 Trichlorophenol	94.1	114
Zinc	168	204

Appendix B
Calculated Water Quality-Based Effluent Limits

Human Health	*70% of Daily Avg.*	*85% of Daily Avg.*
Parameter	***(µg/L)***	***(µg/L)***
Acrylonitrile	2751	3340
Aldrin	0.000274	0.000333
Anthracene	31508	38260
Antimony	25622	31113
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	13899	16878
Benzidine	2.55	3.10
Benzo(*a*)anthracene	0.598	0.726
Benzo(*a*)pyrene	0.0598	0.0726
Bis(chloromethyl)ether	6.56	7.97
Bis(2-chloroethyl)ether	1024	1244
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthala	180	219
Bromodichloromethane [Dichlorobromomethane]	6579	7988
Bromoform [Tribromomethane]	25359	30793
Cadmium	N/A	N/A
Carbon Tetrachloride	1100	1336
Chlordane	0.0598	0.0726
Chlorobenzene	65480	79512
Chlorodibromomethane [Dibromochloromethane]	4378	5316
Chloroform [Trichloromethane]	184144	223604
Chromium (hexavalent)	12009	14583
Chrysene	60.2	73.2
Cresols [Methylphenols]	222519	270202
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0478	0.0581
4,4'-DDE	0.00311	0.00377
4,4'-DDT	0.00956	0.0116
2,4'-D	N/A	N/A
Danitol [Fenpropathrin]	11316	13741
1,2-Dibromoethane [Ethylene Dibromide]	101	123
m -Dichlorobenzene [1,3-Dichlorobenzene]	14234	17285
o -Dichlorobenzene [1,2-Dichlorobenzene]	78926	95838
p -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A
3,3'-Dichlorobenzidine	53.5	65.0
1,2-Dichloroethane	8708	10574
1,1-Dichloroethylene [1,1-Dichloroethene]	1318561	1601109
Dichloromethane [Methylene Chloride]	318982	387335
1,2-Dichloropropane	6196	7524
1,3-Dichloropropene [1,3-Dichloropropylene]	2846	3457
Dicofol [Kelthane]	7.17	8.71
Dieldrin	0.000478	0.000581
2,4-Dimethylphenol	201824	245073
Di-*n* -Butyl Phthalate	2210	2684
Dioxins/Furans [TCDD Equivalents]	0.0000019	0.0000023
Endrin	0.478	0.581
Epichlorohydrin	48159	58479
Ethylbenzene	44666	54237
Ethylene Glycol	401927400	488054700

Appendix B
Calculated Water Quality-Based Effluent Limits

Human Health - continued *Parameter*	*70% of Daily Avg.* *(µg/L)*	*85% of Daily Avg.* *(µg/L)*
Fluoride	N/A	N/A
Heptachlor	0.00239	0.00290
Heptachlor Epoxide	0.00693	0.00842
Hexachlorobenzene	0.0162	0.0197
Hexachlorobutadiene	5.26	6.39
Hexachlorocyclohexane (*alpha*)	0.200	0.244
Hexachlorocyclohexane (*beta*)	6.22	7.55
Hexachlorocyclohexane (*gamma*) [Lindane]	8.15	9.90
Hexachlorocyclopentadiene	277	336
Hexachloroethane	55.7	67.6
Hexachlorophene	69.3	84.2
4,4'-Isopropylidenediphenol [Bisphenol A]	382357	464291
Lead	237	288
Mercury	0.598	0.726
Methoxychlor	71.7	87.1
Methyl Ethyl Ketone	23732856	28818468
Methyl *tert* -butyl ether [MTBE]	250773	304511
Nickel	27273	33117
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
Nitrobenzene	44810	54412
N-Nitrosodiethylamine	50.2	61.0
N-Nitroso-di-*n* -Butylamine	100	122
Pentachlorobenzene	8.49	10.3
Pentachlorophenol	6.93	8.42
Polychlorinated Biphenyls [PCBs]	0.0153	0.0185
Pyridine	22656	27511
Selenium	N/A	N/A
1,2,4,5-Tetrachlorobenzene	5.74	6.97
1,1,2,2-Tetrachloroethane	630	765
Tetrachloroethylene [Tetrachloroethylene]	6698	8134
Thallium	5.50	6.68
Toluene	N/A	N/A
Toxaphene	0.263	0.319
2,4,5-TP [Silvex]	8828	10719
1,1,1-Trichloroethane	18765081	22786170
1,1,2-Trichloroethane	3971	4822
Trichloroethylene [Trichloroethene]	1720	2088
2,4,5-Trichlorophenol	44666	54237
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	394	479

Appendix B
Calculated Mass Limits from the Calculated Water Quality-Based Effluent Limits
Outfalls 001

Water quality-based mass limits were calculated in order to determine whether any were more stringent than the technology-based effluent limits, which are expressed in mass. Since the critical conditions are based on effluent flows of ≤10 MGD, the permitted flow value of 4 MGD was used to calculate the mass limits as follows:

Aquatic Life
Mass limit (lbs/day) = [concentration (µg/L)/1000) × Flow (MGD)] × 8.345
Flow = 4 MGD

Outfall	Parameter	Dly Avg µg/L	Dly Max µg/L	Dly Avg lbs/day	Dly Max lbs/day
001	Copper, Total	43.0	91.1	1.44	3.04
	Zinc, Total	240	509	8.01	17.0
	Nickel, Total	146	310	4.87	10.3
	Cyanide, Free	8.78	18.5	0.293	0.618
	Phenanthrene	12.0	25.5	0.401	0.851

Human Health
Mass limit (lbs/day) = [concentration (µg/L)/1000) × Flow (MGD)] × 8.345
Flow = 4 MGD

Outfall	Parameter	Dly Avg µg/L	Dly Max µg/L	Dly Avg lbs/day	Dly Max lbs/day
001	Acrylonitrile	3930	8315	131	278
	Anthracene	45011	95228	1,502	3,179
	Benzene	19857	42010	663	1,402
	Benzo(a)anthracene	0.854	1.80	0.029	0.060
	Benzo(a)pyrene	0.0854	0.180	0.00285	0.00601
	Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl phthalate]	258	545	8.61	18.2
	Carbon Tetrachloride	1572	3326	52.5	111
	Chlorobenzene	93543	197905	3,122	6,606
	Chloroform [Trichloromethane]	263064	556550	8,781	18,578
	Chrysene	86.1	182	2.87	6.08
	Di-n-Butyl Phthalate	3158	6681	105	223
	1,2-Dichlorobenzene	112751	238542	3,764	7,963
	1,3-Dichlorobenzene	20335	43022	679	1,436
	1,2-Dichloroethane	12440	26319	415	879
	1,1-Dichloroethylene	1883658	3985155	62,877	133,024
	1,2-Dichloropropane	8851	18727	295	625
	1,3-Dichloropropylene	4067	8604	136	287
	2,4-Dimethylphenol	288321	609986	9,624	20,361
	Ethylbenzene	63809	134998	2,129	4,506
	Hexachlorobenzene	0.0232	0.0491	0.000774	0.00164
	Hexachlorobutadiene	7.51	15.9	0.251	0.531
	Hexachloroethane	79.6	168	2.66	5.61
	Methylene Chloride	455688	964075	15,211	32,181

	[Dichloromethane]				
	Nitrobenzene	64014	135431	2,137	4,521
	Tetrachloroethylene	9569	20246	319	676
	1,1,1-Trichloroethane	26807258	56714676	894,826	1,893,136
	1,1,2-Trichloroethane	5673	12003	189	401
	Trichloroethylene	2457	5198	82.0	174
	Vinyl Chloride	563	1193	18.8	39.8

Appendix C -pH Screening

Calculation of pH of a mixture in seawater.		**Oxy Vinyls**
Based on the CO2SYS program (Lewis and Wallace, 1998)		**00002-000**
http://cdiac.esd.ornl.gov/oceans/co2rprt.html		**1006**
INPUT		**Notes on Data Sources**
1. MIXING ZONE BOUNDARY CHARACTERISTICS		
Dilution factor at mixing zone boundary	12.500	Calculated from values in Feb 16, 2018 critical conditions memo: Effluent % at edge of mixing zone = 8%
Depth at plume trapping level (m)	2.000	Default value. Various depths tested.
2. BACKGROUND RECEIVING WATER CHARACTERISTICS		
Temperature (deg C):	25.00	Assumed. Various temperatures tested.
pH:	7.20	Ambient pH for Segment 1006 from 2012 IPs.
Salinity (psu):	30.00	Various salinites tested with no change in pH
Total alkalinity (meq/L)	8.23	Hardness from IPs
3. EFFLUENT CHARACTERISTICS		
Temperature (deg C):	30.00	Assumed. Various temperatures tested.
pH:	6.00	Proposed permit limit. Sequentially modified until predicted pH met segment criteria (6.5 to 9.0).
Salinity (psu)	1.00	Minimum salinity assumed because discharge is freshwater. However, values up to 5 ppt tested.
Total alkalinity (meq/L):	0.40	For high pH scenario, calcuated and tested a range of values. For low pH scenarios, used default of 20 mg/L CaCO3 = 0.40 meq/L
4. CLICK THE 'calculate" BUTTON TO UPDATE OUTPUT RESULTS >>>	calculate	
OUTPUT		
CONDITIONS AT THE MIXING ZONE BOUNDARY		
Temperature (deg C):	25.40	
Salinity (psu)	27.68	
Density (kg/m^3)	1017.71	
Alkalinity (mmol/kg-SW):	7.47	
Total Inorganic Carbon (mmol/kg-SW):	7.71	
pH at Mixing Zone Boundary:	7.18	
Notes:		
To convert from units of mgCaCO3/L to meq/L divide by 50.044 mg/meq		
PSU refers to the Practical Salinity Scale (PSS) and is approximately equivalent to parts per thousand (ppt)		

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

The following table is a summary of technology-based effluent limitations calculated/assessed in the draft permit (Technology-Based), calculated/ assessed water quality-based effluent limitations (Water Quality-Based), and effluent limitations in the existing permit (Existing Permit). Effluent limitations appearing in bold are the most stringent of the three and are included in the draft permit.

Outfall	*Pollutant*	*Technology-Based*				*Water Quality-Based*				*Existing Permit*			
		Daily Avg		*Daily Max*		*Daily Avg*		*Daily Max*		*Daily Avg*		*Daily Max*	
		lbs/day	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*
001	Flow	4.0 MGD		6.4 MGD		N/A		N/A		**4.0 MGD**		**6.4 MGD**	
	Temperature	N/A		N/A		N/A		105 °F		N/A		**105 °F**	
	BOD_5	561.1	N/A	1,442.5	N/A	500.4	N/A	N/A	N/A	**500.4**	N/A	**1,000.8**	N/A
	Ammonia Nitrogen	N/A	N/A	N/A	N/A	100.1	N/A	N/A	N/A	**100.1**	N/A	**200.2**	N/A
	TSS	885.8	N/A	2,883.6	N/A	N/A	N/A	N/A	N/A	**733**	N/A	**1,465**	N/A
	COD	2,149	N/A	4,235	N/A	N/A	N/A	N/A	N/A	**2,149**	N/A	**4,235**	N/A
	Oil and Grease	267	N/A	401	N/A	N/A	N/A	N/A	N/A	**225**	N/A	**337**	N/A
	Total Residual Chlorine	N/A	1.0 (min)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**1.0 (min)**	N/A	N/A
	Enterococci	N/A		N/A		35 cfu or MPN/100 mL		104 cfu or MPN/100 mL		**35 cfu or MPN/100 mL**		**104 cfu or MPN/100 mL**	
	Cyanide, Free [1]	N/A	N/A	N/A	N/A	**Report**	**Report**	**Report**	**Report**	N/A	N/A	N/A	N/A
	Cyanide, Free [2]	N/A	N/A	N/A	N/A	**0.293**	**0.00878**	**0.618**	**0.0185**	N/A	N/A	N/A	N/A
	Copper, Total	N/A	N/A	N/A	N/A	1.44	0.043	3.04	0.0911	**0.7288**	**0.029**	**1.542**	**0.062**
	Zinc, Total	N/A	N/A	N/A	N/A	8.01	**0.240**	17.0	**0.509**	**6.63**	0.246	**14.02**	0.520
	Nickel. Total	N/A	N/A	N/A	N/A	4.87	N/A	10.3	N/A	**3.702**	N/A	**7.832**	N/A
	Acenaphthene	0.400	N/A	1.07	N/A	N/A	N/A	N/A	N/A	**0.40**	N/A	**1.07**	N/A
	Acenaphthylene	0.400	N/A	1.07	N/A	N/A	N/A	N/A	N/A	**0.40**	N/A	**1.07**	N/A
	Acrylonitrile	1.75	N/A	4.40	N/A	131	N/A	278	N/A	**1.74**	N/A	**4.38**	N/A
	Anthracene	0.400	N/A	1.07	N/A	1,502	N/A	3,179	N/A	**0.40**	N/A	**1.07**	N/A
	Benzene	0.673	N/A	2.47	N/A	663	N/A	1,402	N/A	**0.67**	N/A	**2.46**	N/A

[1] Beginning upon permit issuance and lasting three (3) years from the date of permit issuance.
[2] Beginning three (3) years from the date of permit issuance and lasting until the date of permit expiration.

Appendix D - continued
Comparison of Technology-Based Effluent Limits and Water Quality-Based Effluent Limits

Outfall	*Pollutant*	*Technology-Based*				*Water Quality-Based*				*Existing Permit*			
		Daily Avg		*Daily Max*		*Daily Avg*		*Daily Max*		*Daily Avg*		*Daily Max*	
		lbs/day	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*
001	Benzo(a)anthracene	0.400	N/A	1.07	N/A	**0.029**	**0.000854**	**0.060**	**0.0018**	0.40	0.0113	1.07	0.0239
	3,4-Benzofluoranthene	**0.418**	N/A	1.11	N/A	N/A	N/A	N/A	N/A	0.42	N/A	**1.10**	N/A
	Benzo(k)fluoranthene	0.400	N/A	1.07	N/A	N/A	N/A	N/A	N/A	**0.40**	N/A	**1.07**	N/A
	Benzo(a)pyrene	0.418	N/A	1.11	N/A	**0.00285**	**0.0000854**	**0.00601**	**0.00018**	0.377	0.0113	0.797	0.0239
	Bis(2-ethylhexyl) phthalate	1.87	N/A	5.08	N/A	8.61	N/A	18.2	N/A	**1.86**	N/A	**5.05**	N/A
	Carbon Tetrachloride	**0.327**	N/A	0.691	N/A	52.5	N/A	111	N/A	0.33	N/A	**0.69**	N/A
	Chlorobenzene	0.273	N/A	**0.509**	N/A	3,122	N/A	6,606	N/A	**0.27**	N/A	0.51	N/A
	Chloroethane	1.89	N/A	4.88	N/A	N/A	N/A	N/A	N/A	**1.88**	N/A	**4.85**	N/A
	Chloroform	0.382	N/A	0.837	N/A	8,781	N/A	18,578	N/A	**0.38**	N/A	**0.83**	N/A
	2-Chlorophenol	0.564	N/A	1.78	N/A	N/A	N/A	N/A	N/A	**0.56**	N/A	**1.77**	N/A
	Chrysene	0.400	N/A	1.07	N/A	2.87	N/A	6.08	N/A	**0.40**	N/A	**1.07**	N/A
	Di-n-butyl Phthalate	0.491	N/A	1.04	N/A	105	N/A	223	N/A	**0.49**	N/A	**1.03**	N/A
	1,2-Dichlorobenzene	1.40	N/A	2.97	N/A	3,764	N/A	7,963	N/A	**1.39**	N/A	**2.95**	N/A
	1,3-Dichlorobenzene	0.564	N/A	0.800	N/A	679	N/A	1,436	N/A	**0.56**	N/A	**0.80**	N/A
	1,4-Dichlorobenzene	0.273	N/A	**0.509**	N/A	N/A	N/A	N/A	N/A	**0.27**	N/A	0.51	N/A
	1,1-Dichloroethane	0.400	N/A	1.07	N/A	N/A	N/A	N/A	N/A	**0.40**	N/A	**1.07**	N/A
	1,2-Dichloroethane	1.24	N/A	3.84	N/A	415	N/A	879	N/A	**1.23**	N/A	**3.82**	N/A
	1,1-Dichloroethylene	0.291	N/A	0.455	N/A	62,877	N/A	133,024	N/A	**0.29**	N/A	**0.45**	N/A
	1,2-trans-Dichloroethylene	0.382	N/A	0.982	N/A	N/A	N/A	N/A	N/A	**0.38**	N/A	**0.98**	N/A
	2,4-Dichlorophenol	**0.709**	N/A	2.04	N/A	N/A	N/A	N/A	N/A	0.71	N/A	**2.03**	N/A
	1,2-Dichloropropane	2.78	N/A	4.18	N/A	295	N/A	625	N/A	**2.77**	N/A	**4.16**	N/A
	1,3-Dichloropropylene	0.528	N/A	0.800	N/A	136	N/A	287	N/A	**0.52**	N/A	**0.80**	N/A
	Diethyl Phthalate	1.47	N/A	3.69	N/A	N/A	N/A	N/A	N/A	**1.46**	N/A	**3.67**	N/A
	2,4-Dimethylphenol	**0.327**	N/A	0.655	N/A	9,624	N/A	20,361	N/A	0.33	N/A	**0.65**	N/A
	Dimethyl Phthalate	0.346	N/A	0.855	N/A	N/A	N/A	N/A	N/A	**0.34**	N/A	**0.85**	N/A
	4,6-Dinitro-o-cresol	1.42	N/A	5.04	N/A	N/A	N/A	N/A	N/A	**1.41**	N/A	**5.01**	N/A
	2,4-Dinitrophenol	1.29	N/A	2.24	N/A	N/A	N/A	N/A	N/A	**1.28**	N/A	**2.22**	N/A
	2,4-Dinitrotoluene	2.06	N/A	5.18	N/A	N/A	N/A	N/A	N/A	**2.04**	N/A	**5.15**	N/A
	2,6-Dinitrotoluene	4.64	N/A	11.7	N/A	N/A	N/A	N/A	N/A	**4.61**	N/A	**11.59**	N/A
	Ethylbenzene	0.582	N/A	1.96	N/A	2,129	N/A	4,506	N/A	**0.58**	N/A	**1.95**	N/A

Appendix D - continued
Comparison of Technology-Based Effluent Limits and Water Quality-Based Effluent Limits

Outfall	*Pollutant*	*Technology-Based*				*Water Quality-Based*				*Existing Permit*			
		Daily Avg		*Daily Max*		*Daily Avg*		*Daily Max*		*Daily Avg*		*Daily Max*	
		lbs/day	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*
001	Fluoranthene	0.455	N/A	1.24	N/A	N/A	N/A	N/A	N/A	**0.45**	N/A	**1.23**	N/A
	Fluorene	0.400	N/A	1.07	N/A	N/A	N/A	N/A	N/A	**0.40**	N/A	**1.07**	N/A
	Hexachlorobenzene	0.273	N/A	0.509	N/A	**0.000774**	**0.0000232**	**0.00164**	**0.0000491**	0.0051	0.000154	0.0108	0.000325
	Hexachlorobutadiene	0.364	N/A	0.891	N/A	**0.251**	**0.00751**	**0.531**	**0.0159**	0.36	N/A	0.89	N/A
	Hexachloroethane	0.382	N/A	0.982	N/A	2.66	N/A	5.61	N/A	**0.38**	N/A	**0.98**	N/A
	Methyl Chloride	1.56	N/A	3.46	N/A	N/A	N/A	N/A	N/A	**1.56**	N/A	**3.44**	N/A
	Methylene Chloride	0.728	N/A	1.62	N/A	15,211	N/A	32,181	N/A	**0.72**	N/A	**1.61**	N/A
	Naphthalene	0.400	N/A	1.07	N/A	N/A	N/A	N/A	N/A	**0.40**	N/A	**1.07**	N/A
	Nitrobenzene	0.491	N/A	1.24	N/A	2,137	N/A	4,521	N/A	**0.49**	N/A	**1.23**	N/A
	2-Nitrophenol	0.746	N/A	1.26	N/A	N/A	N/A	N/A	N/A	**0.74**	N/A	**1.25**	N/A
	4-Nitrophenol	1.31	N/A	2.26	N/A	N/A	N/A	N/A	N/A	**1.30**	N/A	**2.24**	N/A
	Phenanthrene	0.400	N/A	1.07	N/A	0.401	**0.012**	0.851	0.0255	**0.40**	0.0121	**0.851**	**0.0255**
	Phenol	0.273	N/A	0.473	N/A	N/A	N/A	N/A	N/A	**0.27**	N/A	**0.47**	N/A
	Pyrene	0.455	N/A	1.22	N/A	N/A	N/A	N/A	N/A	**0.45**	N/A	**1.21**	N/A
	Tetrachloroethylene	0.400	N/A	1.02	N/A	319	N/A	676	N/A	**0.40**	N/A	**1.01**	N/A
	Toluene	0.473	N/A	1.46	N/A	N/A	N/A	N/A	N/A	**0.47**	N/A	**1.45**	N/A
	1,2,4-Trichlorobenzene	1.24	N/A	2.55	N/A	N/A	N/A	N/A	N/A	**1.23**	N/A	**2.53**	N/A
	1,1,1-Trichloroethane	0.382	N/A	0.982	N/A	894,826	N/A	1,893,136	N/A	**0.38**	N/A	**0.98**	N/A
	1,1,2-Trichloethane	0.382	N/A	0.982	N/A	189	N/A	401	N/A	**0.38**	N/A	**0.98**	N/A
	Trichloroethylene	0.382	N/A	0.982	N/A	82.0	N/A	174	N/A	**0.38**	N/A	**0.98**	N/A
	Vinyl Chloride	1.89	N/A	4.88	N/A	18.8	N/A	39.8	N/A	**1.00**	N/A	**1.33**	N/A
	pH	6.0 SU (min)		9.0 SU		6.0 SU (min)		9.0 SU		**6.0 SU (min)**		**9.0 SU**	

April 16, 2024

HAND DELIVERED

Texas Commission on Environmental Quality
Water Quality Division
Applications Review and Processing Team, MC-148
P.O. Box 13087
Austin, TX 78711-3087

RE: Industrial Wastewater Permit Application for Renewal
Oxy Vinyls, LP
TPDES Permit No. WQ0000002000 (EPA ID No. TX0006335)

On behalf of Oxy Vinyls, LP, BGE, Inc. is submitting this application for renewal of Industrial Wastewater Permit No. WQ0000002000 which expires on October 21, 2024. This submittal contains one original and two complete copies of the application.

If you have any questions or require additional information, please contact Zachary Oliver at 281-884-4047 or Zachary_Oliver@oxy.com.

Sincerely,

Cydney Schwarzlose
Director

INDUSTRIAL WASTEWATER PERMIT RENEWAL

Permit No. WQ0000002000

Oxy Vinyls, LP

4403 Pasadena Freeway
Pasadena, TX 77503

Prepared by:
BGE, Inc

Table of Contents

1. OVERVIEW

Oxy Vinyls, LP (Oxy Vinyls) is applying to the Texas Commission on Environmental Quality (TCEQ) to renew their Texas Pollution Discharge Elimination System (TPDES) permit (WQ0000002000) (EPA ID.TX0006335) to authorize the discharge of industrial wastewater, sanitary wastewater, and stormwater into the Houston Ship Channel Tidal Segment 1006, San Jacinto River Basin.

It is the duty of Oxy Vinyls to renew their TPDES permit every five years in order to stay in compliance with the TCEQ Industrial Wastewater regulations. A renewal application is required to be submitted 180 days prior to the October 21, 2024, expiration date of the permit. The following information is included in this document:

- Industrial Administrative Report 1.0
- Supplemental Permit Information Form
- Application Fee
- Technical Report 1.0 - Industrial
- Technical Worksheet 1.0 – EPA Categorical Effluent Guidelines
- Technical Worksheet 2.0 – Pollutant Analyses Requirements
- Technical Worksheet 4.0 – Receiving Waters
- Technical Worksheet 5.0 – Sewage and Sludge Management and Disposal

2. INDUSTRIAL ADMINISTRATIVE REPORT 1.0

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

TCEQ INDUSTRIAL WASTEWATER PERMIT APPLICATION

INDUSTRIAL ADMINISTRATIVE REPORT 1.0

This report is required for all applications for TPDES permits and TLAPs. Contact the Applications Review and Processing Team at 512-239-4671 with any questions about completing this report

Item 1. Application Information and Fees (Instructions, Page 25)

a. Complete each field with the requested information, if applicable.

Applicant Name: Oxy Vinyls, LP EPA ID No.: TX0006335

Permit No.: WQ0000002000 Expiration Date: October 21, 2024

b. Check the box next to the appropriate authorization type.

☒ Industrial Wastewater (wastewater and stormwater)

☐ Industrial Stormwater (stormwater only)

c. Check the box next to the appropriate facility status.

☒ Active ☐ Inactive

d. Check the box next to the appropriate permit type.

☒ TPDES Permit ☐ TLAP

e. Check the box next to the appropriate application type.

☐ New

☐ Renewal with changes ☒ Renewal without changes

☐ Major amendment with renewal ☐ Major amendment without renewal

☐ Minor amendment without renewal ☐ Minor modification without renewal

f. If applying for an amendment or modification, describe the request: Click to enter text.

g. Application Fee

EPA Classification	New	Major Amend. (with or without renewal)	Renewal (with or without changes)	Minor Amend. / Minor Mod. (without renewal)
Minor facility not subject to EPA categorical effluent guidelines (*40 CFR Parts 400-471*)	☐ $350	☐ $350	☐ $315	☐ $150
Minor facility subject to EPA categorical effluent guidelines (*40 CFR Parts 400-471*)	☐ $1,250	☐ $1,250	☐ $1,215	☐ $150
Major facility	N/A [1]	☐ $2,050	☒ $2,015	☐ $450

For TCEQ Use Only

Segment Number _____County _____
Expiration Date _____Region _____
Permit Number _____

[1] All facilities are designated as minors until formally classified as a major by EPA.

h. Payment Information

Mailed

Check or money order No.: 1053918 Check or money order amt.: $2,015.00

Named printed on check or money order: Occidental Chemical Corporation OxyChem

Epay

Voucher number: Click to enter text. Copy of voucher attachment: Click to enter text.

Item 2. Applicant Information (Instructions, Pages 25)

a. Customer Number, if applicant is an existing customer: CN600129126

Note: Locate the customer number using the TCEQ's Central Registry Customer Search[2].

b. Legal name of the entity (applicant) applying for this permit: Oxy Vinyls, LP

Note: The owner of the facility must apply for the permit. The legal name must be spelled exactly as filed with the TX SOS, Texas Comptroller of Public Accounts, County, or in the legal documents forming the entity.

c. Name and title of the person signing the application. (**Note:** The person must be an executive official that meets signatory requirements in 30 TAC § 305.44.)

☒ Mr. ☐ Ms. First/Last Name: Eric Delgado

Title: Plant Manager Credential: Click to enter text.

d. Will the applicant have overall financial responsibility for the facility?

☒ Yes ☐ No

Note: The entity with overall financial responsibility for the facility must apply as a co-applicant, if not the facility owner.

Item 3. Co-applicant Information (Instructions, Page 26)

☒ Check this box if there is no co-applicant.; otherwise, complete the below questions.

a. Legal name of the entity (co-applicant) applying for this permit: Click to enter text.

Note: The legal name must be spelled exactly as filed with the TX SOS, Texas Comptroller of Public Accounts, County, or in the legal documents forming the entity.

b. Customer Number (if applicant is an existing customer): CNClick to enter text.

Note: Locate the customer number using the TCEQ's Central Registry Customer Search.

c. Name and title of the person signing the application. (**Note:** The person must be an executive official that meets signatory requirements in 30 TAC § 305.44.)

☐ Mr. ☐ Ms. First/Last Name: Click to enter text.

Title: Click to enter text. Credential: Click to enter text.

d. Will the co-applicant have overall financial responsibility for the facility?

☐ Yes ☐ No

Note: The entity with overall financial responsibility for the facility must apply as a co-applicant, if not the facility owner.

[2] https://www15.tceq.texas.gov/crpub/index.cfm?fuseaction=cust.CustSearch

Item 4. Core Data Form (Instructions, Pages 26)

a. Complete one Core Data Form (TCEQ Form 10400) for each customer (applicant and co-applicant(s)) and include as an attachment. If the customer type selected on the Core Data Form is Individual, complete Attachment 1 of the Administrative Report. Attachment: **Attachment B – Core Data Form**

Item 5. Application Contact Information (Instructions, Page 26)

Provide names of two individuals who can be contact for additional information about this application. Indicate if the individual can be contact about administrative or technical information, or both.

a. ☒ Administrative Contact . ☒ Technical Contact

☒ Mr. ☐ Ms. Full Name (First and Last): Zachary Oliver

Title: Environmental Engineer Credential: Click to enter text.

Organization Name: Oxy Vinyls, LP

Mailing Address: P.O. Box 849

City: Pasadena State: TX Zip Code: 77501

Phone No: 281-884-4047 Fax No: Click to enter text. Email: zachary_oliver@oxy.com

b. ☒ Administrative Contact . ☒ Technical Contact

☐ Mr. ☒ Ms. Full Name (First and Last): Cydney Schwarzlose

Title: Director Credential: Click to enter text.

Organization Name: BGE, Inc.

Mailing Address: 1701 Directors Blvd, Suite 1000

City: Austin State: TX Zip Code: 78744

Phone No: 512-810-8314 Fax No: Click to enter text. Email: cschwarzlose@bgeinc.com

Attachment: Click to enter text.

Item 6. Permit Contact Information (Instructions, Pages 26)

Provide two names of individuals that can be contacted throughout the permit term.

a. ☒ Mr. ☐ Ms. Full Name (First and Last): Liliana Sarpong

Title: Environmental Manager Credential: Click to enter text.

Organization Name: Oxy Vinyls, LP

Mailing Address: P.O. Box 849

City: Pasadena State: TX Zip Code: 77501

Phone No: 281-884-4507 Fax No: Click to enter text. Email: Liliana_sarpong@oxy.com

b. ☒ Mr. ☐ Ms. Full Name (First and Last): Eric Delgado

Title: Plant Manager Credential: Click to enter text.

Organization Name: Oxy Vinyls, LP

Mailing Address: P.O. Box 849

City: Pasadena State: TX Zip Code: 77501

Phone No: 281-884-4020 Fax No: Click to enter text. Email: eric_delgado@oxy.com

Attachment: Click to enter text.

Item 7. Billing Contact Information (Instructions, Page 27)

The permittee is responsible for paying the annual fee. The annual fee will be assessed for permits **in effect on September 1 of each year**. The TCEQ will send a bill to the address provided in this section. The permittee is responsible for terminating the permit when it is no longer needed (form TCEQ-20029).

Provide the complete mailing address where the annual fee invoice should be mailed and the name and phone number of the permittee's representative responsible for payment of the invoice.

☒ Mr. ☐ Ms. Full Name (First and Last): Zachary Oliver

Title: Environmental Engineer Credential: Click to enter text.

Organization Name: Oxy Vinyls, LP

Mailing Address: P.O. Box 849

City: Pasadena State: TX Zip Code: 77501

Phone No: 281-884-4047 Fax No: Click to enter text. Email: Zachary_oliver@oxy.com

Item 8. DMR/MER Contact Information (Instructions, Page 27)

Provide the name and mailing address of the person delegated to receive and submit DMRs or MERs. **Note:** DMR data must be submitted through the NetDMR system. An electronic reporting account can be established once the facility has obtained the permit number.

☒ Mr. ☐ Ms. Full Name (First and Last): Zachary Oliver

Title: Environmental Engineer Credential: Click to enter text.

Organization Name: Oxy Vinyls, LP

Mailing Address: P.O. Box 849

City: Pasadena State: TX Zip Code: 77501

Phone No: 281-884-4047 Fax No: Click to enter text. Email: zachary_oliver@oxy.com

Item 9. NOTICE INFORMATION (Instructions, Pages 27

a. Individual Publishing the Notices

☒ Mr. ☐ Ms. Full Name (First and Last): Zachary Oliver

Title: Environmental Engineer Credential: Click to enter text.

Organization Name: Oxy Vinyls, LP

Mailing Address: P.O. Box 849

City: Pasadena State: TX Zip Code: 77501

Phone No: 281-884-4047 Fax No: Click to enter text. Email: zachary_oliver@oxy.com

b. Method for Receiving Notice of Receipt and Intent to Obtain a Water Quality Permit Package (only for NORI, NAPD will be sent via regular mail)

☒ E-mail: zachary_oliver@oxy.com

☐ Fax: Click to enter text.

☒ Regular Mail (USPS)

Mailing Address: P.O. Box 849

City: Pasadena State: TX Zip Code: 77501

c. Contact in the Notice

☒ Mr. ☐ Ms Full Name (First and Last): Zachary Oliver

Title: Environmental Engineer Credential: Click to enter text.

Organization Name: Oxy Vinyls, LP

Phone No: 281-884-4047 Fax No: Click to enter text. Email: zachary_oliver@oxy.com

d. Public Viewing Location Information

Note: If the facility or outfall is located in more than one county, provide a public viewing place for each county.

Public building name: Deer Park Public Library Location within the building: Reference Section

Physical Address of Building: 3009 Center Street

City: Deer Park County: Harris

e. Bilingual Notice Requirements

This information is required for new, major amendment, minor amendment or minor modification, and renewal applications.

This section of the application is only used to determine if alternative language notices will be needed. Complete instructions on publishing the alternative language notices will be in your public notice package.

Please call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine whether an alternative language notices are required.

1. Is a bilingual education program required by the Texas Education Code at the elementary or middle school nearest to the facility or proposed facility?

   ☒ Yes ☐ No

   If no, publication of an alternative language notice is not required; skip to Item 8 (Regulated Entity and Permitted Site Information.)

2. Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?

   ☒ Yes ☐ No

3. Do the students at these schools attend a bilingual education program at another location?

   ☐ Yes ☒ No

4. Would the school be required to provide a bilingual education program, but the school has waived out of this requirement under 19 TAC §89.1205(g)?

   ☐ Yes ☒ No ☐ N/A

5. If the answer is yes to question 1, 2, 3, or 4, public notices in an alternative language are required. Which language is required by the bilingual program? Spanish

f. Plain Language Summary Template – Complete the Plain Language Summary at the end of this application.

g. Complete one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment and include as an attachment. Attachment: Not Applicable

Item 10. Regulated Entity and Permitted Site Information (Instructions Pages 28-30)

a. TCEQ issued Regulated Entity Number (RN), if available: RN102518065

Note: If your business site is part of a larger business site, a Regulated Entity Number (RN) may already be assigned for the larger site. Use the RN assigned for the larger site. Search the TCEQ's Central Registry to determine the RN or to see if the larger site may already be registered as a Regulated Entity. If the site is found, provide the assigned RN.

b. Name of project or site (the name known by the community where located): Pasadena PVC Plant

c. Is the location address of the facility in the existing permit the same?

☒ Yes ☐ No ☐ N/A (new permit)

Note: If the facility is located in Bexar, Comal, Hays, Kinney, Medina, Travis, Uvalde, or Williamson County, additional information concerning protection of the Edwards Aquifer may be required.

d. Owner of treatment facility:

☐ Mr. ☐ Ms. Full Name (First and Last): Click to enter text.

or Organization Name: Oxy Vinyls, LP

Mailing Address: P.O. Box 849

City: Pasadena State: TX Zip Code: 75501

Phone No: 281-844-4020 Fax No: Click to enter text. Email: eric_delgado@oxy.com

e. Ownership of facility: ☐ Public ☒ Private ☐ Both ☐ Federal

f. Owner of land where treatment facility is or will be: Oxy Vinyls, LP

☐ Mr. ☐ Ms. Full Name (First and Last): Click to enter text.

or Organization Name: Oxy Vinyls, LP

Mailing Address: P.O. Box 849

City: Pasadena State: TX Zip Code: 77501

Phone No: 972-404-3800 Fax No: Click to enter text. Email: eric_delgado@oxy.com

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years (In some cases, a lease may not suffice - see instructions). Attachment: Click to enter text.

g. Owner of effluent TLAP disposal site (if applicable): Click to enter text.

☐ Mr. ☐ Ms. Full Name (First and Last): Click to enter text.

or Organization Name: Click to enter text.

Mailing Address: Click to enter text.

City: Click to enter text. State: Click to enter text. Zip Code: Click to enter text.

Phone No: Click to enter text. Fax No: Click to enter text. Email: Click to enter text.

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: Click to enter text.

h. Owner of sewage sludge disposal site (if applicable):

☐ Mr. ☐ Ms. Full Name (First and Last): Click to enter text.

or Organization Name: Click to enter text.

Mailing Address: Click to enter text.

City: Click to enter text. State: Click to enter text. Zip Code: Click to enter text.

Phone No: Click to enter text. Fax No: Click to enter text. Email: Click to enter text.

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: Click to enter text.

Item 11. TDPES Discharge/TLAP Disposal Information (Instructions, Pages 30-32)

a. Is the facility located on or does the treated effluent cross Native American Land?

☐ Yes ☒ No

b. Attach an original full size USGS Topographic Map (or an 8.5"×11" reproduced portion for renewal or amendment applications) with all required information. Check the box next to each item below to confirm it has been included on the map.

☒ One-mile radius
☒ Applicant's property boundaries
☒ Labeled point(s) of discharge
☐ Effluent disposal site boundaries
☐ Sewage sludge disposal site
☒ Three-miles downstream information
☒ Treatment facility boundaries
☒ Highlighted discharge route(s)
☐ All wastewater ponds
☐ New and future construction

Attachment: Click to enter text.

c. Is the location of the sewage sludge disposal site in the existing permit accurate?

☐ Yes ☐ No or New Permit

If no, or a new application, provide an accurate location description: Click to enter text.

d. Are the point(s) of discharge in the existing permit correct?

☒ Yes ☐ No or New Permit

If no, or a new application, provide an accurate location description: Click to enter text.

e. Are the discharge route(s) in the existing permit correct?

☒ Yes ☐ No or New Permit

If no, or a new permit, provide an accurate description of the discharge route: Click to enter text.

f. City nearest the outfall(s): Pasadena

g. County in which the outfalls(s) is/are located: Harris

h. Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?

☐ Yes ☒ No

If yes, indicate by a check mark if: ☐ Authorization granted ☐ Authorization pending

For new and amendment applications, attach copies of letters that show proof of contact and provide the approval letter upon receipt. Attachment: Click to enter text.

For all applications involving an average daily discharge of 5 MGD or more, provide the names of all counties located within 100 statute miles downstream of the point(s) of discharge: Click to enter text.

i. For TLAPs, is the location of the effluent disposal site in the existing permit accurate?

☐ Yes ☐ No or New Permit

If no, or a new application, provide an accurate location description: Click to enter text.

j. City nearest the disposal site: Click to enter text.

k. County in which the disposal site is located: Click to enter text.

l. Disposal Site Latitude: Click to enter text. Longitude: Click to enter text.

m. For TLAPs, describe how effluent is/will be routed from the treatment facility to the disposal site: Click to enter text.

n. For TLAPs, identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: Click to enter text.

Item 12. MISCELLANEOUS INFORMATION (Instructions, Page 32)

a. Did any person formerly employed by the TCEQ represent your company and get paid for service regarding this application?

☐ Yes ☒ No

If yes, list each person: Click to enter text.

b. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If yes, provide the account no.: Click to enter text. and total amount due: Click to enter text.

c. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If yes, provide the enforcement order no.: Click to enter text. and amount due: Click to enter text.

Item 13. SIGNATURE PAGE (Instructions, Pages 32-33)

Permit No: WQ0000002000

Applicant Name: Oxy Vinyls, LP

Certification: I, Eric Delgado, certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I further certify that I am authorized under 30 Texas Administrative Code §305.44 to sign and submit this document and can provide documentation in proof of such authorization upon request.

Signatory name (typed or printed): Eric Delgado

Signatory title: Plant Manager

Signature: _____ Date: 4/11/2024
(Use blue ink)

Subscribed and Sworn to before me by the said Eric Delgado

on this April day of 11, 2024.

My commission expires on the 1-14- day of 14, 2025.

_____
Notary Public

Harris
County, Texas

[SEAL]
DOROTHY J. BURFORD
NOTARY PUBLIC
STATE OF TEXAS
MY COMMISSION EXPIRES
JANUARY 14, 2025
NOTARY ID: 10735528

Note: *If co-applicants are necessary, each entity must submit an original, separate signature page.*

INDUSTRIAL ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

Item 1. AFFECTED LANDOWNER INFORMATION (Instructions, Pages 34-35)

a. Attach a landowner map or drawing, with scale, as applicable. Check the box next to each item to confirm it has been provided.

☐ The applicant's property boundaries.

☐ The facility site boundaries within the applicant's property boundaries.

☐ The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone.

☐ The property boundaries of all landowners surrounding the applicant's property. (Note: if the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)

☐ The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream.

☐ The property boundaries of the landowners located on both sides of the discharge route for one full stream mile downstream of the point of discharge.

☐ The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected by tides.

☐ The boundaries of the effluent disposal site (e.g., irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property.

☐ The property boundaries of all landowners surrounding the applicant's property boundaries where the effluent disposal site is located.

☐ The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners within one-quarter mile of the applicant's property boundaries where the sewage sludge land application site is located.

☐ The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (e.g., sludge surface disposal site or sludge monofil) is located.

Attachment: Click to enter text.

b. Check the box next to the format of the landowners list:

☐ Readable/Writeable CD ☐ Four sets of labels

Attachment: Click to enter text.

d. Provide the source of the landowners' names and mailing addresses: Click to enter text.

e. As required by Texas Water Code § 5.115, is any permanent school fund land affected by this application?

☐ Yes ☐ No

If yes, provide the location and foreseeable impacts and effects this application has on the land(s): Click to enter text.

Item 2. Public Involvement Plan Form (Instructions, Page 36)

Complete and attach one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment to a permit.

Item 3. ORIGINAL PHOTOGRAPHS (Instructions, Page 36)

Provide original ground level photographs. Check the box next to each of the following items to indicate it is included.

☐ At least one original photograph of the new or expanded treatment unit location.

☐ At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.

☐ At least one photograph of the existing/proposed effluent disposal site.

☐ A plot plan or map showing the location and direction of each photograph.

Attachment: Click to enter text.

.

ATTACHMENT 1

INDIVIDUAL INFORMATION

Item 1. Individual information (Instructions, Page 37)

Complete this attachment if the facility applicant or co-applicant is an individual. Make additional copies of this attachment if both are individuals.

Prefix (Mr., Ms., or Miss): Click to enter text.

Full legal name (first, middle, and last): Click to enter text.

Driver's License or State Identification Number: Click to enter text.

Date of Birth: Click to enter text.

Mailing Address: Click to enter text.

City, State, and Zip Code: Click to enter text.

Phone No.: Click to enter text.

Fax No.: Click to enter text.

E-mail Address: Click to enter text.

CN: Click to enter text.

Checklist of Common Deficiencies

Below is a list of common deficiencies found during the administrative review of industrial wastewater permit applications. To ensure the timely processing of this application, please review the items below and indicate each item is complete and in accordance applicable rules at 30 TAC Chapters 21, 281, and 305 by checking the box next to the item. If an item is not required this application, indicate by checking N/A where appropriate. Please do not submit the application until all items below are addressed.

☒ Core Data Form (TCEQ Form No. 10400)
(Required for all applications types. Must be completed in its entirety and signed. Note: Form may be signed by applicant representative.)

☒ Correct and Current Industrial Wastewater Permit Application Forms
(TCEQ Form Nos. 10055 and 10411. Version dated 5/10/2019 or later.)

☒ Water Quality Permit Payment Submittal Form (Page 14)
(Original payment sent to TCEQ Revenue Section. See instructions for mailing address.)

☒ 7.5 Minute USGS Quadrangle Topographic Map Attached
(Full-size map if seeking "New" permit. 8 ½ x 11 acceptable for Renewals and Amendments.)

☒ N/A ☐ Current/Non-Expired, Executed Lease Agreement or Easement Attached

☒ N/A ☐ Landowners Map
(See instructions for landowner requirements.)

Things to Know:

- All the items shown on the map must be labeled.
- The applicant's complete property boundaries must be delineated which includes boundaries of contiguous property owned by the applicant.
- The applicant cannot be its own adjacent landowner. You must identify the landowners immediately adjacent to their property, regardless of how far they are from the actual facility.
- If the applicant's property is adjacent to a road, creek, or stream, the landowners on the opposite side must be identified. Although the properties are not adjacent to applicant's property boundary, they are considered potentially affected landowners. If the adjacent road is a divided highway as identified on the USGS topographic map, the applicant does not have to identify the landowners on the opposite side of the highway.

☒ N/A ☐ Landowners Cross Reference List
(See instructions for landowner requirements.)

☒ N/A ☐ Landowners Labels or CD-RW attached
(See instructions for landowner requirements.)

☒ Original signature per 30 TAC § 305.44 – Blue Ink Preferred
(If signature page is not signed by an elected official or principle executive officer, a copy of signature authority/delegation letter must be attached.)

☒ Plain Language Summary

PLAIN LANGUAGE SUMMARY

The following summary is provided for this pending water quality permit application being reviewed by the Texas Commission on Environmental Quality as required by 30 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

Oxy Vinyls, LP (CN600129126) operates Pasadena PVC Plant (RN102518065), a polyvinyl chloride resin manufacturing facility. The facility is located at 4403 Pasadena Freeway, in Pasadena, Harris County, Texas 77503. This application is for a renewal to discharge 6,400,000 gallons per day of wastewater effluent. Wastewater effluent is made up of vinyl chloride monomer (VCM) which is mixed with water, suspending agents, and initiators in reactors where polymerization occurs under design conditions. The resulting slurry of polymer (PVC resin) and water is stripped of unreacted VCM. Water that is subsequently separated from PVC resin in a centrifuge is called centrifuge effluent wastewater (CEW). Washdowns of reactors yield reactor effluent wastewater (REW). The REW and CEW waste streams are sent to the biological treatment system. The facility generates solutions preparation wastewater which consists primarily of wastewater from drains on the initiator charge pots and rinsate from raw material containers and drums. Other sources of wastewater from the facility include utility wastewater (including cooling tower blowdown, boiler blowdown, washdown water, condensate, and demineralized regeneration water), sanitary wastewater, and stormwater.

Discharges from the facility are subject to federal effluent limitation guidelines at 40 CFR Part 414. The pollutants expected from these discharges based on 40 CFR Part 414 are: total suspended solids, oil and grease, enterococci, total copper, total zinc, total nickel, temperature, pH, and organic compounds. Wastewater from Oxy Vinyl's process flows, BASF process flows, Aurora Plastics cooling tower blowdown and treated sanitary wastewater, and Houston Ammonia Terminal stormwater and sanitary wastewater are treated by biological wastewater treatment process that consists of pH control via one above ground tank, equalization via six ponds, aeration (activated sludge) via three above ground tanks, clarification through three above ground tanks, multi-media filtration via four above ground tanks, and an anaerobic digestion lagoon. Sanitary wastewater is treated separately from the industrial wastewater through activated sludge, clarification, and disinfection. After treatment, sanitary wastewater is routed to the biological wastewater treatment plant. Effluent from the biological treatment flows through a Parshall flume to a 24-inch pipe to a junction box. The junction box discharges via a 30-inch pipe to Outfall 001 that flows into the Houston Ship Channel Tidal Segment 1006, San Jacinto River Basin.

El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo exige el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar durante la revisión técnica de la solicitud y no es federal. representaciones ejecutables de la solicitud de permiso .

Oxy Vinyls, LP(CN600129126) opera la Pasadena PVC Plant (RN102518065), a planta de fabricación de resina de cloruro de polivinilo.. La instalación isubicada at 4403 Pasadena Freeway en Pasadena el Harris condado de Texas 77503.Esta solicitud es para una renovación para descargar 6,400,000 galones por día de efluentes de aguas residuales. El efluente de aguas residuales está compuesto de monómero de cloruro de vinilo (VCM) que se mezcla con agua, agentes de suspensión e iniciadores en reactores donde se produce la polimerización en las condiciones de diseño. A la suspensión resultante de polímero (resina de PVC) y agua se le quita el VCM que no ha reaccionado. El agua que posteriormente se separa de la resina de PVC en una centrífuga se denomina agua residual efluente de centrífuga (DEC). Los lavados de reactores producen aguas residuales efluentes de reactores (REW). Los flujos de residuos de REW y DEC se envían al sistema de tratamiento biológico. La instalación genera aguas residuales de preparación de soluciones que consisten principalmente en aguas residuales de los drenajes de los recipientes de carga del iniciador y del enjuague de los contenedores y tambores de materia prima. Otras fuentes de aguas residuales de la instalación incluyen aguas residuales de servicios públicos (incluidas purgas de torres de enfriamiento, purgas de calderas, agua de lavado, condensado y agua de regeneración desmineralizada), aguas residuales sanitarias y aguas pluviales.

Las descargas de la instalación están sujetas a pautas federales de limitación de efluentes en 40 CFR Parte 414. Los contaminantes esperados de estas descargas con base en 40 CFR Parte 414 son: sólidos suspendidos totales, aceites y grasas, enterococos, cobre total, zinc total, níquel total, temperatura, pH y compuestos orgánicos. Aguas residuales de los flujos de proceso de Oxy Vinyl, flujos de proceso de BASF, purga de torres de enfriamiento de Aurora Plastics y aguas residuales sanitarias tratadas, y aguas pluviales y aguas residuales sanitarias de la Terminal de Amoníaco de Houston son tratado mediante un proceso de tratamiento biológico de aguas residuales que consiste en control del pH a través de un tanque sobre el suelo, ecualización a través de seis estanques, aireación (lodos activados) a través de tres tanques sobre el suelo, clarificación a través de tres tanques sobre el suelo, filtración multimedia a través de cuatro tanques sobre el suelo, y una laguna de digestión anaeróbica. Las aguas residuales sanitarias se tratan por separado de las aguas residuales industriales mediante lodos activados, clarificación y desinfección. Después del tratamiento, las aguas residuales sanitarias se conducen a la planta de tratamiento biológico de aguas residuales. El efluente del tratamiento biológico fluye a través de un canal Parshall hasta una tubería de 24 pulgadas hasta una caja de conexiones. La caja de conexiones descarga a través de una tubería de 30 pulgadas al emisario 001 que desemboca en el segmento de marea 1006 del canal de navegación de Houston, cuenca del río San Jacinto.

3. SUPPLEMENTAL PERMIT INFORMATION FORM

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING INDUSTRIAL TPDES WASTEWATER PERMIT APPLICATIONS

TCEQ USE ONLY:

Application type: _____Renewal _____Major Amendment ____Minor Amendment _____New

County: _____ Segment Number: _____

Admin Complete Date: _____

Agency Receiving SPIF:

_____ Texas Historical Commission _____ U.S. Fish and Wildlife

_____ Texas Parks and Wildlife Department _____ U.S. Army Corps of Engineers

This form applies to TPDES permit applications only. (Instructions, Page 36)

The SPIF must be completed as a separate document. The TCEQ will mail a copy of the SPIF to each agency as required by the TCEQ agreement with EPA. If any of the items are not completely addressed or further information is needed, you will be contacted to provide the information before the permit is issued. Each item must be completely addressed.

Do not refer to a response of any item in the permit application form. Each attachment must be provided with this form separately from the administrative report of the application. The application will not be declared administratively complete without this form being completed in its entirety including all attachments.

The following applies to all applications:

1. Permittee Name: Oxy Vinyls, LP

2. Permit No.: WQ0000002000 EPA ID No.: TX0006335

3. Address of the project (location description that includes street/highway, city/vicinity, and county): 4403 Pasadena Freeway, Pasadena, TX, Harris County

4. Provide the name, address, phone and fax number, and email address of an individual that can be contacted to answer specific questions about the property.

   Full Name (First and Last): Zachary Oliver

   Organization Name: Oxy Vinyls, LP Mailing Address: P.O. Box 849

   City: Pasadena State: TX Zip Code: 77501

   Phone No: 281-884-4047 Fax No: Click to enter text. Email: zachary_oliver@oxy.com

5. List the county in which the facility is located: Harris

6. If the property is publicly owned and the owner is different than the permittee/applicant, please list the owner of the property: Click to enter text.

7. Provide a description of the effluent discharge route. The discharge route must follow the flow of effluent from the point of discharge to the nearest major watercourse (from the point of discharge to a classified segment as defined in 30 TAC Chapter 307). If known, please identify the classified segment number: Effluent from the treatment facility flows through a Parshall flume and then a 24-

inch diameter pipe. The effluent flows to a junction box where it connects with a 30-inch diameter pipe that discharges directly into the Houston Ship Channel Tidal in Segment No. 1006 of the San Jacinto River Basin.

8. Please provide a separate 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report.) Attachment: **SPIF Figure 1 and Figure 2**
9. Provide original photographs of any structures 50 years or older on the property. Attachment: Click to enter text.
10. Does your project involve any of the following? Check all that apply.

    ☐ Proposed access roads, utility lines, construction easements

    ☐ Visual effects that could damage or detract from a historic property's integrity

    ☐ Vibration effects during construction or as a result of project design

    ☐ Additional phases of development that are planned for the future

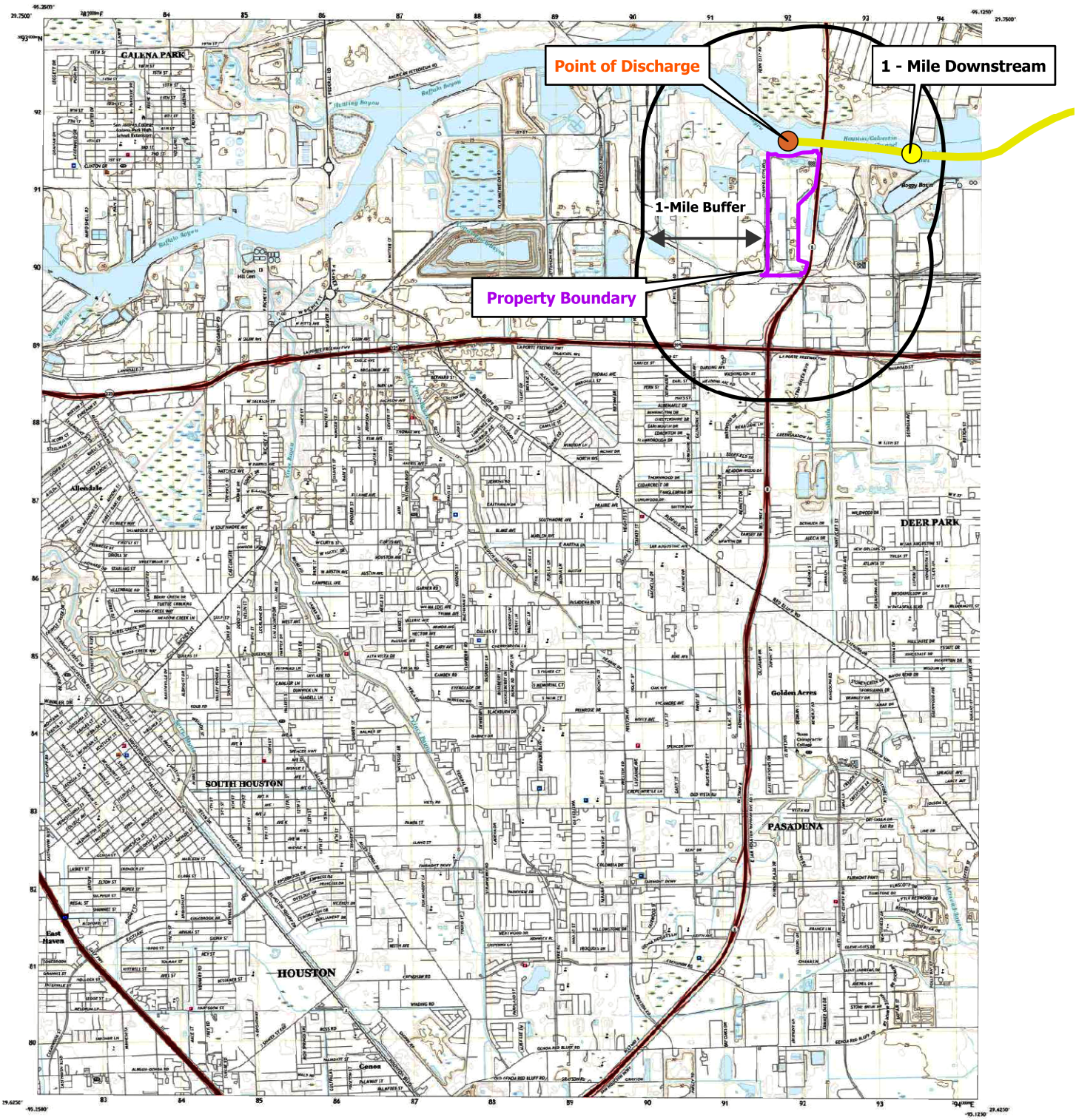
    ☐ Sealing caves, fractures, sinkholes, other karst features

    ☐ Disturbance of vegetation or wetlands

11. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features): Click to enter text.
12. Describe existing disturbances, vegetation, and land use: The property has been developed as an industrial chemical plant.

THE FOLLOWING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR AMENDMENTS TO TPDES PERMITS

13. List construction dates of all buildings and structures on the property: Click to enter text.
14. Provide a brief history of the property, and name of the architect/builder, if known: Click to enter text.



N

0 3,000 6,000

Feet

Oxy Vinyls PVC - Pasadena		
SPIF Figure 1 - USGS Map		
April 2024	Proj. No: 12600-00	Attachment: 1

N

0 3,000 6,000

Feet

Oxy Vinyls PVC - Pasadena		
SPIF Figure 2 - USGS Map		
April 2024	Proj. No: 12600-00	Attachment: 2

4. TECHNICAL REPORT 1.0 - INDUSTRIAL

TECHNICAL REPORT 1.0
INDUSTRIAL

The following information **is required** for all applications for a TLAP or an individual TPDES discharge permit.

For additional information or clarification on the requested information, refer to the Instructions for Completing the Industrial Wastewater Permit Application[1] available on the TCEQ website.

If more than one outfall is included in the application, provide applicable information for each individual outfall. **If an item does not apply to the facility, enter N/A** to indicate that the item has been considered. Include separate reports or additional sheets as **clearly cross-referenced attachments** and provide the attachment number in the space provided for the item the attachment addresses.

NOTE: This application is for an industrial wastewater permit only. Additional authorizations from the TCEQ Waste Permits Division or the TCEQ Air Permits Division may be needed.

1. FACILITY/SITE INFORMATION (Instructions, Pages 39-40)

a. Describe the general nature of the business and type(s) of industrial and commercial activities. Include all applicable SIC codes (up to 4).

The Pasadena PVC plant manufactures polyvinyl chloride resin. The resin is shipped from the facility in bulk via railcars and trucks. SIC Code 2821.

b. Describe all wastewater-generating processes at the facility.

Vinyl chloride monomer (VCM) is mixed with water, suspending agents, and initiators in reactors where polymerization occurs under design conditions. The resulting slurry of polymer (PVC resin) and water is stripped of unreacted VCM. Water that is subsequently separated from PVC resin in a centrifuge is called centrifuge effluent wastewater (CEW). Washdowns of reactors yield reactor effluent wastewater (REW). The REW and CEW waste streams are sent to the biological treatment system. The facility generates solutions preparation wastewater which consists primarily of wastewater from drains on the initiator charge pots and rinsate from raw material containers and drums. Other sources of wastewater from the facility include utility wastewater (including cooling tower blowdown, boiler blowdown, washdown water, condensate, and demineralized regeneration water), sanitary wastewater, and stormwater.

[1] https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_steps.html

c. Provide a list of raw materials, major intermediates, and final products handled at the facility.

Materials List

Raw Materials	Intermediate Products	Final Products
Vinyl chloride (75-01-4)		Polyvinyl chloride (9002-86-2)
Methanol (67-56-1)		
Mineral Spirits (8052-41-3)		

Attachment: Click to enter text

d. Attach a facility map (drawn to scale) with the following information:

- Production areas, maintenance areas, materials-handling areas, waste-disposal areas, and water intake structures.
- The location of each unit of the WWTP including the location of wastewater collection sumps, impoundments, outfalls, and sampling points, if significantly different from outfall locations.

Attachment: Attachment C- Facility Map

e. Is this a new permit application for an existing facility?

☐ Yes ☒ No

If **yes**, provide background discussion: Click to enter text

f. Is/will the treatment facility/disposal site be located above the 100-year frequency flood level.

☒ Yes ☐ No

List source(s) used to determine 100-year frequency flood plain:

FEMA Flood Insurance Map 48201C0910M effective 1/6/2017

If **no**, provide the elevation of the 100-year frequency flood plain and describe what protective measures are used/proposed to prevent flooding (including tail water and rainfall run-on controls) of the treatment facility and disposal area: Click to enter text

Attachment: Click to enter text

g. For **new** or **major amendment** permit applications, will any construction operations result in a discharge of fill material into a water in the state?

☐ Yes ☐ No ☒ N/A (renewal only)

h. If **yes** to Item 1.g, has the applicant applied for a USACE CWA Chapter 404 Dredge and Fill permit?

☐ Yes ☐ No

If **yes**, provide the permit number: Click to enter text

If **no**, provide an approximate date of application submittal to the USACE: Click to enter text

2. TREATMENT SYSTEM (Instructions, Page 40)

a. List any physical, chemical, or biological treatment process(es) used/proposed to treat wastewater at this facility. Include a description of each treatment process, starting with initial treatment and finishing with the outfall/point of disposal.

Biological Wastewater Treatment consists of:
Primary Section: pH control – One above ground tank with a total volume of 100,000 gallons
Equilization – Six ponds with a total volume of 10 million gallons.
Secondary Section: Aeriation (activated sludge) – Two above ground tanks - 250,000 gallons (60' diameter, 12.5' height) and one above ground tank – 400,000 gallons (75' diameter, 12.5' height)
Clarification – Two above ground tanks – 270,000 gallons (68' diameter, 10' height) and one above ground tank – 375,000 gallons (80' diameter, 10' height)
Tertiary Section:
Multi-media filtration – four above ground tanks 20' diameter, 10' height
Anaerobic digestion lagoon – aged, activated sludge discharged to lagoon, effluent returned to wastewater treatment via equalization pond.
Discharge Point – Effluent from biological treatment flows through a Parshall flume to a 24" pipe to a junction box. Box discharges via a 30" pipe to Outfall 001 that flows into Houston Ship Channel Tidal Segment 1006, San Jacinto River Basin.
Sanitary treatment – Activated sludge, clarification, disinfection. After disinfection, routed to the biological wastewater treatment plant.

b. Attach a flow schematic **with a water balance** showing all sources of water and wastewater flow into the facility, wastewater flow into and from each treatment unit, and wastewater flow to each outfall/point of disposal.

Attachment: Attachment D – Flow Schematic

3. IMPOUNDMENTS (Instructions, Pages 40-42)

Does the facility use or plan to use any wastewater impoundments (e.g., lagoons or ponds?)

☒ Yes ☐ No

If **no**, proceed to Item 4. If **yes**, complete **Item 3.a** for **existing** impoundments and **Items 3.a - 3.e** for **new or proposed** impoundments. **NOTE:** See instructions, Pages 40-42, for additional information on the attachments required by Items 3.a – 3.e.

a. Complete the table with the following information for each existing, new, or proposed impoundment:

Use Designation: Indicate the use designation for each impoundment as Treatment (**T**), Disposal (**D**), Containment (**C**), or Evaporation (**E**).

Associated Outfall Number: Provide an outfall number if a discharge occurs or will occur.

Liner Type: Indicate the liner type as Compacted clay liner (**C**), In-situ clay liner (**I**), Synthetic/plastic/rubber liner (**S**), or Alternate liner (**A**). **NOTE:** See instructions for further detail on liner specifications. If an alternate liner (A) is selected, include an attachment that provides a description of the alternate liner and any additional technical information necessary for an evaluation.

Leak Detection System: If any leak detection systems are in place/planned, enter **Y** for yes. Otherwise, enter **N** for no.

Groundwater Monitoring Wells and Data: If groundwater monitoring wells are in place/planned, enter **Y** for yes. Otherwise, enter **N** for no. Attach any existing groundwater monitoring data.

Dimensions: Provide the dimensions, freeboard, surface area, storage capacity of the impoundments, and the maximum depth (not including freeboard). For impoundments with irregular shapes, submit surface area instead of length and width.

Compliance with 40 CFR Part 257, Subpart D: If the impoundment is required to be in compliance with 40 CFR Part 257, Subpart D, enter **Y** for yes. Otherwise, enter **N** for no.

Date of Construction: Enter the date construction of the impoundment commenced (mm/dd/yy).

Impoundment Information

Parameter	**Pond #1**	**Pond #2**	**Pond #3**	**Pond #4**
Use Designation: (T) (D) (C) or (E)	T	T	T	T
Associated Outfall Number	001	001	001	001
Liner Type (C) (I) (S) or (A)	I	I	I	I
Alt. Liner Attachment Reference				
Leak Detection System, Y/N	N	N	N	N
Groundwater Monitoring Wells, Y/N	N	N	N	N
Groundwater Monitoring Data Attachment	N	N	N	N
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	Y	Y	Y	Y
Length (ft)	79	170	188	188
Width (ft)	50	170	47	78
Max Depth From Water Surface (ft), Not Including Freeboard	5.5	7.5	7.5	7.5
Freeboard (ft)	2	2	2	2
Surface Area (acres)	0.091	0.66	0.2	0.34
Storage Capacity (gallons)	180,000	1,300,000	650,000	550,000
40 CFR Part 257, Subpart D, Y/N	N	N	N	N
Date of Construction	1962	1962	1962	1962

Impoundment Information

Parameter	**Pond #5**	**Pond #6**	**Pond Aerobic Digester**	**Pond Stormwater Pond (MSGP)**
Use Designation: (T) (D) (C) or (E)	T	T	T	C
Associated Outfall Number	001	001	001	NA
Liner Type (C) (I) (S) or (A)	I	I	I	I
Alt. Liner Attachment Reference				
Leak Detection System, Y/N	N	N	N	N
Groundwater Monitoring Wells, Y/N	N	N	N	N
Groundwater Monitoring Data Attachment	N	N	N	N
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	Y	Y	Y	Y
Length (ft)	224	135	475	125
Width (ft)	135	98	80	100
Max Depth From Water Surface (ft), not including freeboard	10.2	10.2	8.9	14.2
Freeboard (ft)	2	2	2	2

Parameter	Pond #5	Pond #6	Pond Aerobic Digester	Pond Stormwater Pond (MSGP)
Surface Area (acres)	0.69	0.3	0.87	0.29
Storage Capacity (gallons)	2,470,000	600,000	1,300,000	470,000
40 CFR Part 257, Subpart D, Y/N	N	N	N	N
Date of Construction	1962	1962	1962	1962

Attachment: Click to enter text.

The following information (**Items 3.b – 3.e**) is required only for **new or proposed** impoundments.

b. For new or proposed impoundments, attach any available information on the following items. If attached, check **yes** in the appropriate box. Otherwise, check **no** or **not yet designed**.

i. Liner data

☐ Yes ☐ No ☐ Not yet designed

ii. Leak detection system or groundwater monitoring data

☐ Yes ☐ No ☐ Not yet designed

iii. Groundwater impacts

☐ Yes ☐ No ☐ Not yet designed

NOTE: Item b.iii is required if the bottom of the pond is not above the seasonal high-water table in the shallowest water-bearing zone.

Attachment: Click to enter text.

For TLAP applications: Items 3.c – 3.e are **not required**, continue to Item 4.

c. Attach a USGS map or a color copy of original quality and scale which accurately locates and identifies all known water supply wells and monitor wells within ½-mile of the impoundments.

Attachment: Click to enter text.

d. Attach copies of State Water Well Reports (e.g., driller's logs, completion data, etc.), and data on depths to groundwater for all known water supply wells including a description of how the depths to groundwater were obtained.

Attachment: Click to enter text.

e. Attach information pertaining to the groundwater, soils, geology, pond liner, etc. used to assess the potential for migration of wastes from the impoundments or the potential for contamination of groundwater or surface water.

Attachment: Click to enter text.

4. OUTFALL/DISPOSAL METHOD INFORMATION (Instructions, Pages 42-43)

Complete the following tables to describe the location and wastewater discharge or disposal operations for each outfall for discharge operations, and for each point of disposal for TLAP operations.

If there are more outfalls/points of disposal at the facility than the spaces provided, copies of pages 6 and/or numbered accordingly (i.e., page 6a, 6b, etc.) may be used to provide information on the additional outfalls.

For TLAP applications: Indicate the disposal method and each individual irrigation area **I**, evaporation pond **E**, or subsurface drainage system **S** by providing the appropriate letter designation for the disposal method followed by a numerical designation for each disposal area in the space provided for **Outfall** number (e.g. **E1** for evaporation pond 1, **I2** for irrigation area No. 2, etc.).

Outfall Latitude and Longitude

Outfall Number	Latitude-decimal degrees	Longitude-decimal degrees
001	29.734167	-95.150556

Outfall Location Description

Outfall Number	Location Description
001	North central edge of property at the Houston Ship Channel

Description of Sampling Points (if different from Outfall location)

Outfall Number	Description of Sampling Point
001	At the Outfall 001 Junction Box inside the fence line at the Houston Ship Channel

Outfall Flow Information – Permitted and Proposed

Outfall Number	Permitted Daily Avg Flow (MGD)	Permitted Daily Max Flow (MGD)	Proposed Daily Avg Flow (MGD)	Proposed Daily Max Flow (MGD)	Anticipated Discharge Date (mm/dd/yy)
001	4	6.4	4	6.4	

Outfall Discharge – Method and Measurement

Outfall Number	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used
001	N	Y	Parshall Flume

Outfall Discharge – Flow Characteristics

Outfall Number	Intermittent Discharge? Y/N	Continuous Discharge? Y/N	Seasonal Discharge? Y/N	Discharge Duration (hrs/day)	Discharge Duration (days/mo)	Discharge Duration (mo/yr)
001	N	Y	N	24/7	28-31	12

Wastestream Contributions

Outfall No.: 001

Contributing Wastestreams	Volume (MGD)	% of Total Flow
Biological wastewater treatment effluent	2.31	82.6
Cooling tower blowdown (Oxy)	0.13	4.6
Boil blowdown (Oxy)	0.05	1.8
Cooling tower blowdown (BASF)	0.086	3.1
Demineralized regeneration water	0.22	7.9
Stormwater runoff	variable	
Stormwater and sanitary wastewater (Houston Ammonia Terminal)	variable	

Outfall No.: Click to enter text.

Contributing Wastestreams	Volume (MGD)	% of Total Flow

Outfall No.: Click to enter text.

Contributing Wastestreams	Volume (MGD)	% of Total Flow

Attachment: Click to enter text.

5. BLOWDOWN AND ONCE-THROUGH COOLING WATER DISCHARGES (Instructions, Page 44)

a. Does the facility use/propose to use any cooling towers which discharge blowdown or other wastestreams to the outfall(s)?

☒ Yes ☐ No

NOTE: If the facility uses or plans to use cooling towers, Item 12 **is required**.

b. Does the facility use or plan to use any boilers that discharge blowdown or other wastestreams to the outfall(s)?

☒ Yes ☐ No

c. Does or will the facility discharge once-through cooling water to the outfall(s)?

☐ Yes ☒ No

NOTE: If the facility uses or plans to use once-through cooling water, Item 12 **is required**.

d. If **yes** to Items 5.a, 5.b, **or** 5.c, attach the SDS with the following information for each chemical additive.

- Manufacturers Product Identification Number
- Product use (e.g., biocide, fungicide, corrosion inhibitor, etc.)
- Chemical composition including CASRN for each ingredient
- Classify product as non-persistent, persistent, or bioaccumulative
- Product or active ingredient half-life
- Frequency of product use (e.g., 2 hours/day once every two weeks)
- Product toxicity data specific to fish and aquatic invertebrate organisms
- Concentration of whole product or active ingredient, as appropriate, in wastestream.

Attach a summary of this information in addition to the submittal of the SDS for each specific wastestream and the associated chemical additives and specify which outfalls are affected.

Attachment: Attachment E – Cooling Tower Chemical Summary

e. Cooling Towers and Boilers

If **yes** to either Item 5.a **or** 5.b, complete the following table.

Cooling Towers and Boilers

Type of Unit	Number of Units	Dly Avg Blowdown (gallons/day)	Dly Max Blowdown (gallons/day)
Cooling Towers	4	126,000	419,900
Boilers	4	7,200	216,000

6. STORMWATER MANAGEMENT (Instructions, Page 44)

Are there any existing/proposed outfalls which discharge stormwater associated with industrial activities, as defined at *40 CFR § 122.26(b)(14)*, commingled with any other wastestream?

☒ Yes ☐ No

If **yes**, briefly describe the industrial processes and activities that occur outdoors or in some manner which may result in exposure of the activities or materials to stormwater: **See Attachment F- Stormwater Management**

7. DOMESTIC SEWAGE, SEWAGE SLUDGE, AND SEPTAGE MANAGEMENT AND DISPOSAL (Instructions, Page 45)

Domestic Sewage - Waste and wastewater from humans or household operations that is discharged to a wastewater collection system or otherwise enters a treatment works.

a. Check the box next to the appropriate method of domestic sewage and domestic sewage sludge treatment or disposal. Complete Worksheet 5.0 or Item 7.b if directed to do so.

☐ Domestic sewage is routed (i.e., connected to or transported to) to a WWTP permitted to receive domestic sewage for treatment, disposal, or both. **Complete Item 7.b**.

☐ Domestic sewage disposed of by an on-site septic tank and drainfield system. **Complete Item 7.b**.

☐ Domestic and industrial treatment sludge **ARE commingled** prior to use or disposal.

☒ Industrial wastewater and domestic sewage are treated separately, and the respective sludge **IS NOT commingled** prior to sludge use or disposal. **Complete Worksheet 5.0**.

☐ Facility is a POTW. **Complete Worksheet 5.0**.

☐ Domestic sewage is not generated on-site.

☐ Other (e.g., portable toilets), specify and **Complete Item 7.b**: Click to enter text

b. Provide the name and TCEQ, NPDES, or TPDES Permit No. of the waste-disposal facility which receives the domestic sewage/septage. If hauled by motorized vehicle, provide the name and TCEQ Registration No. of the hauler.

Domestic Sewage Plant/Hauler Name

Plant/Hauler Name	Permit/Registration No.

8. IMPROVEMENTS OR COMPLIANCE/ENFORCEMENT REQUIREMENTS (Instructions, Page 45)

a. Is the permittee currently required to meet any implementation schedule for compliance or enforcement?

☐ Yes ☒ No

b. Has the permittee completed or planned for any improvements or construction projects?

☐ Yes ☒ No

c. If **yes** to either 8.a **or** 8.b, provide a brief summary of the requirements and a status update: Click to enter text

9. TOXICITY TESTING (Instructions, Page 45)

Have any biological tests for acute or chronic toxicity been made on any of the discharges or on a receiving water in relation to the discharge within the last three years?

☒ Yes ☐ No

If **yes**, identify the tests and describe their purposes: **Quarterly chronic and semi-annual acute biomonitoring are conducted in accordance with permit requirements.**

Additionally, attach a copy of all tests performed which **have not** been submitted to the TCEQ or EPA.

Attachment: All test results have been submitted to TCEQ.

10. OFF-SITE/THIRD PARTY WASTES (Instructions, Page 45)

a. Does or will the facility receive wastes from off-site sources for treatment at the facility, disposal on-site via land application, or discharge via a permitted outfall?

☒ Yes ☐ No

If **yes**, provide responses to Items 10.b through 10.d below.

If **no**, proceed to Item 11.

b. Attach the following information to the application:

- List of wastes received (including volumes, characterization, and capability with on-site wastes).
- Identify the sources of wastes received (including the legal name and addresses of the generators).
- Description of the relationship of waste source(s) with the facility's activities.

Attachment: Attachment G – Third Party Wastes

c. Is or will wastewater from another TCEQ, NPDES, or TPDES permitted facility commingled with this facility's wastewater after final treatment and prior to discharge via the final outfall/point of disposal?

☐ Yes ☒ No

If **yes**, provide the name, address, and TCEQ, NPDES, or TPDES permit number of the contributing facility and a copy of any agreements or contracts relating to this activity.

Attachment: Click to enter text

d. Is this facility a POTW that accepts/will accept process wastewater from any SIU and has/is required to have an approved pretreatment program under the NPDES/TPDES program?

☐ Yes ☒ No

If **yes**, **Worksheet 6.0** of this application **is required**.

11. RADIOACTIVE MATERIALS (Instructions, Pages 46)

a. Are/will radioactive materials be mined, used, stored, or processed at this facility?

☐ Yes ☒ No

If **yes**, use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L.

Radioactive Materials Mined, Used, Stored, or Processed

Radioactive Material	Concentration (pCi/L)

Radioactive Material	Concentration (pCi/L)

b. Does the applicant or anyone at the facility have any knowledge or reason to believe that radioactive materials may be present in the discharge, including naturally occurring radioactive materials in the source waters or on the facility property?

☐ Yes ☐ No

If **yes**, use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L. Do not include information provided in response to Item 11.a.

Radioactive Materials Present in the Discharge

Radioactive Material	Concentration (pCi/L)

12. COOLING WATER (Instructions, Pages 46-47)

a. Does the facility use or propose to use water for cooling purposes?

☒ Yes ☐ No

If **no**, stop here. If **yes**, complete Items 12.b thru 12.f.

b. Cooling water is/will be obtained from a groundwater source (e.g., on-site well).

☐ Yes ☒ No

If **yes**, stop here. If **no**, continue.

c. Cooling Water Supplier

i. Provide the name of the owner(s) and operator(s) for the CWIS that supplies or will supply water for cooling purposes to the facility.

Cooling Water Intake Structure(s) Owner(s) and Operator(s)

CWIS ID				
Owner	Coastal Water Authority			
Operator	Coastal Water Authority			

ii. Cooling water is/will be obtained from a Public Water Supplier (PWS)

☐ Yes ☒ No

If **no**, continue. If **yes**, provide the PWS Registration No. and stop here: PWS No. Click to enter text

iii. Cooling water is/will be obtained from a reclaimed water source?

☐ Yes ☒ No

If **no**, continue. If **yes**, provide the Reuse Authorization No. and stop here: Click to enter text

iv. Cooling water is/will be obtained from an Independent Supplier

☒ Yes ☐ No

If **yes**, provide the actual intake flow of the Independent Supplier's CWIS that is/will be used to provide water for cooling purposes to the facility and proceed: 17,500 MGD (Trinity River Pump Station)

If **no**, proceed to Item 12.d.

d. 316(b) General Criteria

i. The CWIS(s) used to provide water for cooling purposes to the facility has or will have a cumulative design intake flow of 2 MGD or greater.

☐ Yes ☐ No

ii. At least 25% of the total water withdrawn by the CWIS is/will be used at the facility exclusively for cooling purposes on an annual average basis.

☐ Yes ☐ No

iii. The CWIS(s) withdraw(s)/propose(s) to withdraw water for cooling purposes from surface waters that meet the definition of Waters of the United States in *40 CFR § 122.2*.

☐ Yes ☐ No

If **no**, provide an explanation of how the waterbody does not meet the definition of Waters of the United States in *40 CFR § 122.2*: Click to enter text

If **yes** to all three questions in Item 12.d, the facility **meets** the minimum criteria to be subject to the full requirements of Section 316(b) of the CWA. Proceed to **Item 12.f**.

If **no** to any of the questions in Item 12.d, the facility **does not meet** the minimum criteria to be subject to the full requirements of Section 316(b) of the CWA; however, a determination is required based upon BPJ. Proceed to **Item 12.e**.

e. The facility does not meet the minimum requirements to be subject to the fill requirements of Section 316(b) **and uses/proposes to use cooling towers**.

☐ Yes ☐ No

If **yes**, stop here. If **no**, complete Worksheet 11.0, Items 1(a), 1(b)(i-iii) and (vi), 2(b)(i), and 3(a) to allow for a determination based upon BPJ.

f. Oil and Gas Exploration and Production

i. The facility is subject to requirements at 40 CFR Part 435, Subparts A or D.

☐ Yes ☐ No

If **yes**, continue. If **no**, skip to Item 12.g.

ii. The facility is an existing facility as defined at 40 CFR § 125.92(k) or a new unit at an existing facility as defined at 40 CFR § 125.92(u).

☐ Yes ☐ No

If **yes**, complete Worksheet 11.0, Items 1(a), 1(b)(i-iii) and (vi), 2(b)(i), and 3(a) to allow for a determination based upon BPJ. If **no**, skip to Item 12.g.iii.

g. Compliance Phase and Track Selection

i. Phase I – New facility subject to 40 CFR Part 125, Subpart I

☐ Yes ☐ No

If **yes**, check the box next to the facility's compliance track selection, attach the requested information, and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.

☐ Track I – AIF greater than 2 MGD, but less than 10 MGD
- Attach information required by *40 CFR §§ 125.86(b)(2)-(4)*.

☐ Track I – AIF greater than 10 MGD
- Attach information required by *40 CFR § 125.86(b)*.

☐ Track II
- Attach information required by *40 CFR § 125.86(c)*.

Attachment: Click to enter text.

ii. Phase II – Existing facility subject to 40 CFR Part 125, Subpart J

☐ Yes ☐ No

If **yes**, complete Worksheets 11.0 through 11.3, as applicable.

iii. Phase III – New facility subject to 40 CFR Part 125, Subpart N

☐ Yes ☐ No

If **yes**, check the box next to the facility's compliance track selection and provide the requested information.

☐ Track I – Fixed facility
- Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.

☐ Track I – Not a fixed facility
- Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Item 2 (except the CWIS latitude and longitude under Item 2.a).

☐ Track II – Fixed facility
- Attach information required by 40 CFR § 125.136(c) and complete Worksheet 11.0, Items 2 and 3.

Attachment: Click to enter text.

NOTE: Item 13 is required only for existing permitted facilities.

13. PERMIT CHANGE REQUESTS (Instructions, Pages 49-50)

a. Is the facility requesting a **major amendment** of an existing permit?

☐ Yes ☒ No

If **yes**, list each request individually and provide the following information: 1) detailed information regarding the scope of each request and 2) a justification for each request. Attach any supplemental information or additional data to support each request.

Click to enter text.

b. Is the facility requesting any **minor amendments** to the permit?

☐ Yes ☒ No

If **yes**, list and discuss the requested changes.

Click to enter text.

c. Is the facility requesting any **minor modifications** to the permit?

☐ Yes ☒ No

If **yes**, list and discuss the requested changes.

Click to enter text.

5. TECHNICAL WORKSHEET 1.0 - EPA CATEGORICAL EFFLUENT GUIDELINES

WORKSHEET 1.0
EPA CATEGORICAL EFFLUENT GUIDELINES

This worksheet **is required** for all applications for TPDES permits for discharges of wastewaters subject to EPA categorical effluent limitation guidelines (ELGs).

1. CATEGORICAL INDUSTRIES (Instructions, Pages 50-52)

Is this facility subject to any of the 40 CFR categorical ELGs outlined on page 53 of the instructions?

☒ Yes ☐ No

If **no**, this worksheet is not required. If **yes**, provide the appropriate information in the table below.

40 CFR Effluent Guidelines

Industry	40 CFR Part
Organic Chemicals, Plastics, and Synthetic Fibers	414

2. PRODUCTION/PROCESS DATA (Instructions, Page 54)

NOTE: For all TPDES permit applications requesting individual permit coverage for discharges of oil and gas exploration and production wastewater (discharges into or adjacent to water in the state, falling under the Oil and Gas Extraction Effluent Guidelines – 40 CFR Part 435), see Worksheet 12.0, Item 2 instead.

a. **Production Data**

Provide the appropriate data for effluent guidelines with production-based effluent limitations.

Production Data

Subcategory	Actual Quantity/Day	Design Quantity/Day	Units
N/A			

b. **Organic Chemicals, Plastics, and Synthetic Fibers Manufacturing Data (40 CFR Part 414)**

Provide each applicable subpart and the percent of total production. Provide data for metal-bearing and cyanide-bearing wastestreams, as required by *40 CFR Part 414, Appendices A and B*.

Percentages of Total Production

Subcategory	Percent of Total Production	Appendix A and B - Metal	Appendix A – Cyanide
Thermoplastic Resins	70	Not applicable	Not applicable
2-Ethylhexanol (2-EH, CAS 104-76-7) – BASF	18	Not applicable	Not applicable
2-Ethylhexyl Terephthalate (DOTP, plasticizer, CAS 6422-86-2) - BASF	12	Not applicable	Not applicable
End of Pipe Biological	100	Not applicable	Not applicable

c. **Refineries (40 CFR Part 419)**

Provide the applicable subcategory and a brief justification.

Not applicable

3. PROCESS/NON-PROCESS WASTEWATER FLOWS (Instructions, Page 54)

Provide a breakdown of wastewater flow(s) generated by the facility, including both process and non-process wastewater flow(s). Specify which wastewater flows are to be authorized for discharge under this permit and the disposal practices for wastewater flows, excluding domestic, which are not to be authorized for discharge under this permit.

Oxy Process wastewater (Subpart D): 1.91 MGD

BASF Process Flows (Subpart G): 0.068 MGD

BASF Process Flows (Subpart H): 0.205 MGD

Aurora Plastics (cooling tower blowdown and treated sanitary): <0.007 MGD

Houston Ammonia Terminal (stormwater and sanitary): <0.007 MGD

4. NEW SOURCE DETERMINATION (Instructions, Page 54)

Provide a list of all wastewater-generating processes subject to EPA categorical ELGs, identify the appropriate guideline Part and Subpart, and provide the date the process/construction commenced.

Wastewater-generating Processes Subject to Effluent Guidelines

Process	EPA Guideline: Part	EPA Guideline: Subpart	Date Process/ Construction Commenced
Oxy Process Lines 1-3	414	D	1974
Oxy Process Line 4	414	D	1976
Oxy Process Line 5	414	D	1980
Oxy Process Line 6	414	D	1990
Oxy Process Line 7	414	D	1997
DOTP Unit (BASF)	414	H	2017
2-EH Unit (BASF)	414	G	2017

6. TECHNICAL WORKSHEET 2.0 – POLLUTANT ANALYSES REQUIREMENTS

WORKSHEET 2.0
POLLUTANT ANALYSES REQUIREMENTS

Worksheet 2.0 **is required** for all applications submitted for a TPDES permit. Worksheet 2.0 is not required for applications for a permit to dispose of all wastewater by land disposal or for discharges solely of stormwater associated with industrial activities.

1. LABORATORY ACCREDITATION (Instructions, Page 56)

Effective July 1, 2008, all laboratory tests performed must meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification* with the following general exemptions:

a. The laboratory is an in-house laboratory and is:
   i. periodically inspected by the TCEQ; or
   ii. located in another state and is accredited or inspected by that state; or
   iii. performing work for another company with a unit located in the same site; or
   iv. performing pro bono work for a governmental agency or charitable organization.

b. The laboratory is accredited under federal law.

c. The data are needed for emergency-response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.

d. The laboratory supplies data for which the TCEQ does not offer accreditation.

Review *30 TAC Chapter 25* for specific requirements. The following certification statement shall be signed and submitted with every application. See Instructions, Page 34, for a list of approved signatories.

I, Eric Delgado, certify that all laboratory tests submitted with this application meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*.

(Signature)

2. GENERAL TESTING REQUIREMENTS (Instructions, Pages 56-58)

a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): 08/03/2023-03/11/2024

b. ☒ Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.

c. Read the general testing requirements in the instructions for important information about sampling, test methods, and MALs. If a contact laboratory was used, attach a list which includes the name, contact information, and pollutants analyzed for each laboratory/firm. **Attachment: Attachment H – Laboratory Information**

3. SPECIFIC TESTING REQUIREMENTS (Instructions, Pages 58-69)

Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. **Attachment:**

TABLE 1 and TABLE 2 (Instructions, Page 58)

Completion of Tables 1 and 2 **is required** for **all external outfalls** for all TPDES permit applications.

Table 1 for Outfall No.: 001

Samples are (check one): ☒ **Composite** ☐ **Grab**

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
BOD (5-day)	6	7	5	6
CBOD (5-day)	ND (2)	4	3	ND (2)
Chemical oxygen demand	29	38	30	29
Total organic carbon	5.2	8.1	8.7	9.4
Dissolved oxygen	6.3 (grab)	6.5 (grab)	7.1 (grab)	8.4 (grab)
Ammonia nitrogen	1.24	1.55	1.62	1.74
Total suspended solids	6	5	ND (5)	ND (5)
Nitrate nitrogen	1.73	1.99	1.77	2.31
Total organic nitrogen	1.24	0.93	1.50	2.05
Total phosphorus	0.05	0.07	0.04	0.09
Oil and grease	ND (5) (grab)	ND (5) (grab)	ND (5) (grab)	ND (5) (grab)
Total residual chlorine	0.1 (grab)	0.1 (grab)	0.1 (grab)	1 (grab)
Total dissolved solids	1,800	1,570	1,800	1,870
Sulfate	960	612	866	962
Chloride	211	230	233	219
Fluoride	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Total alkalinity (mg/L as CaCO3)	96	112	110	100
Temperature (°F)	85 (grab)	78 (grab)	77 (grab)	83 (grab)
pH (standard units)	7.61 (grab)	7.7 (grab)	7.9 (grab)	7.4 (grab)

Table 2 for Outfall No.: 001

Samples are (check one): ☒ **Composites** ☐ **Grabs**

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Aluminum, total	297	436	317	583	2.5
Antimony, total	0.4	0.5	0.4	0.7	5
Arsenic, total	0.7	0.9	1.3	1.1	0.5
Barium, total	40	40.1	41.1	45.2	3
Beryllium, total	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	0.5
Cadmium, total	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	1
Chromium, total	1.2	1.3	0.94	1.3	3
Chromium, hexavalent	ND (0.0047)	ND (0.0047)	ND (0.0047)	ND (0.0047)	3
Chromium, trivalent	1.2	1.3	0.94	1.3	N/A
Copper, total	1.3	1.5	2.0	2.9	2
Cyanide, available	190 (grab)	ND (9) (grab)	ND (9) (grab)	ND (9) (grab)	2/10
Lead, total	ND (0.4)	ND (0.4)	1.9	ND (0.4)	0.5
Mercury, total	0.0000426	0.0000701	0.00198	0.000282	0.005/0.0005
Nickel, total	2.4	2.6	3.6	4.3	2
Selenium, total	ND (3.2)	ND (3.2)	ND (3.2)	ND (3.2)	5
Silver, total	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	0.5

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Thallium, total	ND (0.4)	ND (0.4)	ND (0.4)	ND (0.4)	0.5
Zinc, total	9.9	9.0	9.5	11.4	5.0

TABLE 3 (Instructions, Page 58)

Completion of Table 3 **is required** for all **external outfalls** which discharge process wastewater.

Partial completion of Table 3 **is required** for all **external outfalls** which discharge non-process wastewater and stormwater associated with industrial activities commingled with other wastestreams (see instructions for additional guidance).

Table 3 for Outfall No.: 001

Samples are (check one): ☒ **Composites** ☐ **Grabs**

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Acrylonitrile	ND (43)	ND (43)	ND (43)	ND (43)	50
Anthracene	ND (.35)	ND (.35)	ND (.39)	ND (.35)	10
Benzene	ND (1)	ND (1)	ND (1)	ND (1)	10
Benzidine	ND (.66)	ND (.66)	ND (.73)	ND (.66)	50
Benzo(a)anthracene	ND (.38)	ND (.38)	ND (.42)	ND (.38)	5
Benzo(a)pyrene	ND (.85)	ND (.85)	ND (.94)	ND (.85)	5
Bis(2-chloroethyl)ether	ND (.72)	ND (.72)	ND (.80)	ND (.72)	10
Bis(2-ethylhexyl)phthalate	ND (2.2)	ND (2.2)	ND (2.4)	ND (2.2)	10
Bromodichloromethane [Dichlorobromomethane]	ND (1)	ND (1)	ND (1)	ND (1)	10
Bromoform	ND (2)	ND (2)	ND (2)	ND (2)	10
Carbon tetrachloride	ND (2)	ND (2)	ND (2)	ND (2)	2
Chlorobenzene	ND (1)	ND (1)	ND (1)	ND (1)	10
Chlorodibromomethane [Dibromochloromethane]	ND (1)	ND (1)	ND (1)	ND (1)	10
Chloroform	2	ND (2)	ND (2)	ND (2)	10
Chrysene	ND (.57)	ND (.57)	ND (.63)	ND (.57)	5
m-Cresol [3-Methylphenol]	ND (4)	ND (1.3)	ND (1.5)	ND (1.3)	10
o-Cresol [2-Methylphenol]	ND (2)	ND (1)	ND (1.1)	ND (1)	10
p-Cresol [4-Methylphenol]	ND (4)	ND (1.3)	ND (1.5)	ND (1.3)	10
1,2-Dibromoethane	ND (1)	ND (1)	ND (1)	ND (1)	10
m-Dichlorobenzene [1,3-Dichlorobenzene]	ND (.53)	ND (.53)	ND (.59)	ND (.53)	10
o-Dichlorobenzene [1,2-Dichlorobenzene]	ND (.41)	ND (.41)	ND (.46)	ND (.41)	10
p-Dichlorobenzene [1,4-Dichlorobenzene]	ND (.25)	ND (.25)	ND (.28)	ND (.25)	10
3,3'-Dichlorobenzidine	ND (.88)	ND (.88)	ND (.98)	ND (.88)	5
1,2-Dichloroethane	ND (1)	ND (1)	ND (1)	ND (1)	10
1,1-Dichloroethene [1,1-Dichloroethylene]	ND (1)	ND (1)	ND (1)	ND (1)	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Dichloromethane [Methylene chloride]	ND (1)	ND (1)	ND (1)	ND (1)	20
1,2-Dichloropropane	ND (1)	ND (1)	ND (1)	ND (1)	10
1,3-Dichloropropene [1,3-Dichloropropylene]	ND (2)	ND (2)	ND (2)	ND (2)	10
2,4-Dimethylphenol	ND (.53)	ND (.53)	ND (.59)	ND (.53)	10
Di-n-Butyl phthalate	ND (1.2)	ND (1.2)	ND (1.4)	ND (1.2)	10
Ethylbenzene	ND (1)	ND (1)	ND (1)	ND (1)	10
Fluoride	ND (.5) mg/L	ND (.5) mg/L	ND (.5) mg/L	ND (.5) mg/L	500
Hexachlorobenzene	ND (.69)	ND (.69)	ND (.77)	ND (.69)	5
Hexachlorobutadiene	ND (.41)	ND (.41)	ND (.46)	ND (.41)	10
Hexachlorocyclopentadiene	ND (.35)	ND (.35)	ND (.39)	ND (.35)	10
Hexachloroethane	ND (.47)	ND (.47)	ND (.52)	ND (.47)	20
Methyl ethyl ketone	ND (4)	ND (4)	ND (4)	ND (4)	50
Nitrobenzene	ND (.91)	ND (.91)	ND (1)	ND (.91)	10
N-Nitrosodiethylamine	ND (5.0)	ND (5.0)	ND (5.6)	ND (5.0)	20
N-Nitroso-di-n-butylamine	ND (5.0)	ND (5.0)	ND (5.6)	ND (5.0)	20
Nonylphenol	ND (5.0)	ND (5.0)	ND (5.55)	ND (5.0)	333
Pentachlorobenzene	ND (3.0)	ND (3.0)	ND (3.3)	ND (3.0)	20
Pentachlorophenol	ND (0.5)	ND (0.5)	ND (.56)	ND (0.5)	5
Phenanthrene	ND (.44)	ND (.44)	ND (.49)	ND (.44)	10
Polychlorinated biphenyls (PCBs) (**)	ND (0.03)	ND (0.03)	ND (0.03)	ND (0.03)	0.2
Pyridine	ND (.35)	ND (.35)	ND (.39)	ND (.35)	20
1,2,4,5-Tetrachlorobenzene	ND (5.0)	ND (5.0)	ND (5.6)	ND (5.0)	20
1,1,2,2-Tetrachloroethane	ND (1)	ND (1)	ND (1)	ND (1)	10
Tetrachloroethene [Tetrachloroethylene]	ND (1)	ND (1)	ND (1)	ND (1)	10
Toluene	ND (1)	ND (1)	ND (1)	ND (1)	10
1,1,1-Trichloroethane	ND (1)	ND (1)	ND (1)	ND (1)	10
1,1,2-Trichloroethane	ND (1)	ND (1)	ND (1)	ND (1)	10
Trichloroethene [Trichloroethylene]	ND (1)	ND (1)	ND (1)	ND (1)	10
2,4,5-Trichlorophenol	ND (.85)	ND (.85)	ND (.94)	ND (.85)	50
TTHM (Total trihalomethanes)	ND (2)	ND(2)	ND(2)	ND(2)	10
Vinyl chloride	ND (1)	ND (1)	ND (1)	ND (1)	10

(*) Indicate units if different from µg/L.
(**) Total of detects for PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, and PCB-1016. If all non-detects, enter the highest non-detect preceded by a "<".

TABLE 4 (Instructions, Pages 58-59)

Partial completion of Table 4 **is required** for each **external outfall** based on the conditions below.

a. Tributyltin

Is this facility an industrial/commercial facility which currently or proposes to directly dispose of wastewater from the types of operations listed below or a domestic facility which currently or proposes to receive wastewater from the types of industrial/commercial operations listed below?

☐ Yes ☒ No

If **yes**, check the box next to each of the following criteria which apply and provide the appropriate testing results in Table 4 below (check all that apply).

☐ Manufacturers and formulators of tributyltin or related compounds.
☐ Painting of ships, boats and marine structures.
☐ Ship and boat building and repairing.
☐ Ship and boat cleaning, salvage, wrecking and scaling.
☐ Operation and maintenance of marine cargo handling facilities and marinas.
☐ Facilities engaged in wood preserving.
☐ Any other industrial/commercial facility for which tributyltin is known to be present, or for which there is any reason to believe that tributyltin may be present in the effluent.

b. Enterococci (discharge to saltwater)

i. This facility discharges/proposes to discharge directly into saltwater receiving waters **and** Enterococci bacteria are expected to be present in the discharge based on facility processes.

☒ Yes ☐ No

ii. Domestic wastewater is/will be discharged.

☒ Yes ☐ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

c. E. coli (discharge to freshwater)

i. This facility discharges/proposes to discharge directly into freshwater receiving waters **and** *E. coli* bacteria are expected to be present in the discharge based on facility processes.

☐ Yes ☒ No

ii. Domestic wastewater is/will be discharged.

☐ Yes ☒ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

Table 4 for Outfall No.: 001

Samples are (check one): ☐ **Composites** ☒ **Grabs**

Pollutant	Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin (µg/L)	NA	NA	NA	NA	0.010
Enterococci (cfu or MPN/100 mL)	ND (2)	ND (2)	ND (2)	ND (2)	N/A
E. coli (cfu or MPN/100 mL)	NA	NA	NA	NA	N/A

TABLE 5 (Instructions, Page 59)

Completion of Table 5 **is required** for all **external outfalls** which discharge process wastewater from a facility which manufactures or formulates pesticides or herbicides or other wastewaters which may contain pesticides or herbicides.

If this facility does not/will not manufacture or formulate pesticides or herbicides and does not/will not discharge other wastewaters which may contain pesticides or herbicides, check N/A.

☒ N/A

Table 5 for Outfall No.: Click to enter text.

Samples are (check one): ☐ **Composites** ☐ **Grabs**

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Aldrin					0.01
Carbaryl					5
Chlordane					0.2
Chlorpyrifos					0.05
4,4'-DDD					0.1
4,4'-DDE					0.1
4,4'-DDT					0.02
2,4-D					0.7
Danitol [Fenpropathrin]					—
Demeton					0.20
Diazinon					0.5/0.1
Dicofol [Kelthane]					1
Dieldrin					0.02
Diuron					0.090
Endosulfan I (*alpha*)					0.01
Endosulfan II (*beta*)					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Guthion [Azinphos methyl]					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
Hexachlorocyclohexane (*alpha*)					0.05
Hexachlorocyclohexane (*beta*)					0.05
Hexachlorocyclohexane (*gamma*) [Lindane]					0.05
Hexachlorophene					10
Malathion					0.1
Methoxychlor					2.0
Mirex					0.02
Parathion (ethyl)					0.1
Toxaphene					0.3
2,4,5-TP [Silvex]					0.3

* Indicate units if different from µg/L.

TABLE 6 (Instructions, Page 59)

Completion of Table 6 **is required** for all **external outfalls**.

Table 6 for Outfall No.: 001

Samples are (check one): ☒ **Composites** ☐ **Grabs**

Pollutants	Believed Present	Believed Absent	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)	MAL (µg/L)*
Bromide	☐	☒					400
Color (PCU)	☐	☒					—
Nitrate-Nitrite (as N)	☒	☐	2.36				—
Sulfide (as S)	☒	☐	ND (0.05)				—
Sulfite (as SO_3)	☐	☒					—
Surfactants	☐	☒					—
Boron, total	☐	☒					20
Cobalt, total	☐	☒					0.3
Iron, total	☐	☒					7
Magnesium, total	☐	☒					20
Manganese, total	☐	☒					0.5
Molybdenum, total	☐	☒					1
Tin, total	☐	☒					5
Titanium, total	☐	☒					30

* Indicate units if different from µg/L.

TABLE 7 (Instructions, Page 60)

Check the box next to any of the industrial categories applicable to this facility. If no categories are applicable, check N/A. If GC/MS testing is required, check the box provided to confirm the testing results for the appropriate parameters are provided with the application.

☐ N/A

Table 7 for Applicable Industrial Categories

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
☐ Adhesives and Sealants		☐ Yes	☐ Yes	☐ Yes	No
☐ Aluminum Forming	467	☐ Yes	☐ Yes	☐ Yes	No
☐ Auto and Other Laundries		☐ Yes	☐ Yes	☐ Yes	☐ Yes
☐ Battery Manufacturing	461	☐ Yes	No	☐ Yes	No
☐ Coal Mining	434	No	No	No	No
☐ Coil Coating	465	☐ Yes	☐ Yes	☐ Yes	No
☐ Copper Forming	468	☐ Yes	☐ Yes	☐ Yes	No
☐ Electric and Electronic Components	469	☐ Yes	☐ Yes	☐ Yes	☐ Yes
☐ Electroplating	413	☐ Yes	☐ Yes	☐ Yes	No
☐ Explosives Manufacturing	457	No	☐ Yes	☐ Yes	No
☐ Foundries		☐ Yes	☐ Yes	☐ Yes	No
☐ Gum and Wood Chemicals - Subparts A,B,C,E	454	☐ Yes	☐ Yes	No	No
☐ Gum and Wood Chemicals - Subparts D,F	454	☐ Yes	☐ Yes	☐ Yes	No
☐ Inorganic Chemicals Manufacturing	415	☐ Yes	☐ Yes	☐ Yes	No
☐ Iron and Steel Manufacturing	420	☐ Yes	☐ Yes	☐ Yes	No
☐ Leather Tanning and Finishing	425	☐ Yes	☐ Yes	☐ Yes	No
☐ Mechanical Products Manufacturing		☐ Yes	☐ Yes	☐ Yes	No
☐ Nonferrous Metals Manufacturing	421,471	☐ Yes	☐ Yes	☐ Yes	☐ Yes
☐ Oil and Gas Extraction - Subparts A, D, E, F, G, H	435	☐ Yes	☐ Yes	☐ Yes	No
☐ Ore Mining - Subpart B	440	No	☐ Yes	No	No
☐ Organic Chemicals Manufacturing	414	☐ Yes	☐ Yes	☐ Yes	☐ Yes
☐ Paint and Ink Formulation	446,447	☐ Yes	☐ Yes	☐ Yes	No
☐ Pesticides	455	☐ Yes	☐ Yes	☐ Yes	☐ Yes
☐ Petroleum Refining	419	☐ Yes	No	No	No
☐ Pharmaceutical Preparations	439	☐ Yes	☐ Yes	☐ Yes	No
☐ Photographic Equipment and Supplies	459	☐ Yes	☐ Yes	☐ Yes	No
☒ Plastic and Synthetic Materials Manufacturing	414	☒ Yes	☒ Yes	☒ Yes	☐ Yes
☐ Plastic Processing	463	☐ Yes	No	No	No
☐ Porcelain Enameling	466	No	No	No	No
☐ Printing and Publishing		☐ Yes	☐ Yes	☐ Yes	☐ Yes
☐ Pulp and Paperboard Mills - Subpart C	430	☐ *	☐ Yes	☐ *	☐ Yes
☐ Pulp and Paperboard Mills - Subparts F, K	430	☐ *	☐ Yes	☐ *	☐ *
☐ Pulp and Paperboard Mills - Subparts A, B, D, G, H	430	☐ Yes	☐ Yes	☐ *	☐ *
☐ Pulp and Paperboard Mills - Subparts I, J, L	430	☐ Yes	☐ Yes	☐ *	☐ Yes
☐ Pulp and Paperboard Mills - Subpart E	430	☐ Yes	☐ Yes	☐ Yes	☐ *
☐ Rubber Processing	428	☐ Yes	☐ Yes	☐ Yes	No
☐ Soap and Detergent Manufacturing	417	☐ Yes	☐ Yes	☐ Yes	No
☐ Steam Electric Power Plants	423	☐ Yes	☐ Yes	No	No
☐ Textile Mills (Not Subpart C)	410	☐ Yes	☐ Yes	☐ Yes	No
☐ Timber Products Processing	429	☐ Yes	☐ Yes	☐ Yes	☐ Yes

* Test if believed present.

TABLES 8, 9, 10, and 11 (Instructions, Page 60)

Completion of Tables 8, 9, 10, and 11 **is required** as specified in Table 7 for all **external outfalls** that contain process wastewater.

Completion of Tables 8, 9, 10, and 11 **may be required** for types of industry not specified in Table 7 for specific parameters that are believed to be present in the wastewater.

Table 8 for Outfall No.: 001 : Volatile Compounds

Samples are (check one): ☐ **Composites** ☒ **Grabs**

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Acrolein	ND (8) (Composite)				50
Acrylonitrile	ND (43)				50
Benzene	ND (1)				10
Bromoform	ND (2)				10
Carbon tetrachloride	ND (2)				2
Chlorobenzene	ND (1)				10
Chlorodibromomethane	ND (1)				10
Chloroethane	ND (1)				50
2-Chloroethylvinyl ether	ND (14)				10
Chloroform	ND (2)				10
Dichlorobromomethane [Bromodichloromethane]	ND (1)				10
1,1-Dichloroethane	ND (1)				10
1,2-Dichloroethane	ND (1)				10
1,1-Dichloroethylene [1,1-Dichloroethene]	ND (1)				10
1,2-Dichloropropane	ND (1)				10
1,3-Dichloropropylene [1,3-Dichloropropene]	ND (2)				10
Ethylbenzene	ND (1)				10
Methyl bromide [Bromomethane]	ND (2)				50
Methyl chloride [Chloromethane]	ND (1)				50
Methylene chloride [Dichloromethane]	ND (1)				20
1,1,2,2-Tetrachloroethane	ND (1)				10
Tetrachloroethylene [Tetrachloroethene]	ND (1)				10
Toluene	ND (1)				10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]	ND (1)				10
1,1,1-Trichloroethane	ND (1)				10
1,1,2-Trichloroethane	ND (1)				10
Trichloroethylene [Trichloroethene]	ND (1)				10
Vinyl chloride	ND (1)				10

* Indicate units if different from µg/L.

Table 9 for Outfall No.: 001 : Acid Compounds

Samples are (check one): ☒ Composites ☐ Grabs

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
2-Chlorophenol	ND (5)				10
2,4-Dichlorophenol	ND (5)				10
2,4-Dimethylphenol	ND (5)				10
4,6-Dinitro-o-cresol	ND (5)				50
2,4-Dinitrophenol	ND (10)				50
2-Nitrophenol	ND (5)				20
4-Nitrophenol	ND (5)				50
p-Chloro-m-cresol	ND (5)				10
Pentachlorophenol	ND (2)				5
Phenol	ND (2) (grab)				10
2,4,6-Trichlorophenol	ND (5)				10

* Indicate units if different from µg/L.

Table 10 for Outfall No.: 001 : Base/Neutral Compounds

Samples are (check one): ☒ Composites ☐ Grabs

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Acenaphthene	ND (5)				10
Acenaphthylene	ND (5)				10
Anthracene	ND (2)				10
Benzidine	ND (5)				50
Benzo(a)anthracene	ND (1)				5
Benzo(a)pyrene	ND (1)				5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]	ND (5)				10
Benzo(ghi)perylene	ND (5)				20
Benzo(k)fluoranthene	ND (2)				5
Bis(2-chloroethoxy)methane	ND (5)				10
Bis(2-chloroethyl)ether	ND (5)				10
Bis(2-chloroisopropyl)ether	ND (5)				10
Bis(2-ethylhexyl)phthalate	ND (5)				10
4-Bromophenyl phenyl ether	ND (5)				10
Butylbenzyl phthalate	ND (5)				10
2-Chloronaphthalene	ND (5)				10
4-Chlorophenyl phenyl ether	ND (5)				10
Chrysene	ND (1)				5
Dibenzo(a,h)anthracene	ND (2)				5
1,2-Dichlorobenzene [o-Dichlorobenzene]	ND(1) (Grab)				10
1,3-Dichlorobenzene [m-Dichlorobenzene]	ND(1) (Grab)				10
1,4-Dichlorobenzene [p-Dichlorobenzene]	ND(1) (Grab)				10
3,3'-Dichlorobenzidine	ND (2)				5

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Diethyl phthalate	ND (5)				10
Dimethyl phthalate	ND (2)				10
Di-n-butyl phthalate	ND (5)				10
2,4-Dinitrotoluene	ND (5)				10
2,6-Dinitrotoluene	ND (5)				10
Di-n-octyl phthalate	ND (5)				10
1,2-Diphenylhydrazine (as Azobenzene)	ND (5)				20
Fluoranthene	ND (5)				10
Fluorene	ND (5)				10
Hexachlorobenzene	ND (0.8)				5
Hexachlorobutadiene	ND (2)				10
Hexachlorocyclopentadiene	ND (2)				10
Hexachloroethane	ND (2)				20
Indeno(1,2,3-cd)pyrene	ND (2)				5
Isophorone	ND (5)				10
Naphthalene	ND (2)				10
Nitrobenzene	ND (5)				10
N-Nitrosodimethylamine	ND (5)				50
N-Nitrosodi-n-propylamine	ND (5)				20
N-Nitrosodiphenylamine	ND (5)				20
Phenanthrene	ND (5)				10
Pyrene	ND (5)				10
1,2,4-Trichlorobenzene	ND (5)				10

* Indicate units if different from µg/L.

Table 11 for Outfall No.: Click to enter text : Pesticides

Samples are (check one): ☐ Composites ☐ Grabs

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Aldrin					0.01
alpha-BHC [alpha-Hexachlorocyclohexane]					0.05
beta-BHC [beta-Hexachlorocyclohexane]					0.05
gamma-BHC [gamma-Hexachlorocyclohexane]					0.05
delta-BHC [delta-Hexachlorocyclohexane]					0.05
Chlordane					0.2
4,4'-DDT					0.02
4,4'-DDE					0.1
4,4'-DDD					0.1
Dieldrin					0.02
Endosulfan I (alpha)					0.01
Endosulfan II (beta)					0.02
Endosulfan sulfate					0.1

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Endrin					0.02
Endrin aldehyde					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
PCB 1242					0.2
PCB 1254					0.2
PCB 1221					0.2
PCB 1232					0.2
PCB 1248					0.2
PCB 1260					0.2
PCB 1016					0.2
Toxaphene					0.3

* Indicate units if different from µg/L.

Attachment: Click to enter text

TABLE 12 (DIOXINS/FURAN COMPOUNDS)

Complete of Table 12 **is required** for **external outfalls**, as directed below. (Instructions, Pages 60-61)

a. Indicate which compound(s) are manufactured or used at the facility and provide a brief description of the conditions of its/their presence at the facility (check all that apply).

- ☐ 2,4,5-trichlorophenoxy acetic acid (2,4,5-T) CASRN 93-76-5
- ☐ 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP) CASRN 93-72-1
- ☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) CASRN 136-25-4
- ☐ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel) CASRN 299-84-3
- ☐ 2,4,5-trichlorophenol (TCP) CASRN 95-95-4
- ☐ hexachlorophene (HCP) CASRN 70-30-4
- ☒ None of the above

Description: Click to enter text

b. Does the applicant or anyone at the facility know or have any reason to believe that 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) or any congeners of TCDD may be present in the effluent proposed for discharge?

☐ Yes ☒ No

Description: Click to enter text

If **yes** to either Items a **or** b, complete Table 12 as instructed.

Table 12 for Outfall No.: Click to enter text.

Samples are (check one): ☐ **Composites** ☐ **Grabs**

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDD	1					10
1,2,3,7,8-PeCDD	1.0					50
2,3,7,8-HxCDDs	0.1					50
1,2,3,4,6,7,8-HpCDD	0.01					50
2,3,7,8-TCDF	0.1					10
1,2,3,7,8-PeCDF	0.03					50
2,3,4,7,8-PeCDF	0.3					50
2,3,7,8-HxCDFs	0.1					50
2,3,4,7,8-HpCDFs	0.01					50
OCDD	0.0003					100
OCDF	0.0003					100
PCB 77	0.0001					500
PCB 81	0.0003					500
PCB 126	0.1					500
PCB 169	0.03					500
Total						

TABLE 13 (HAZARDOUS SUBSTANCES)

Complete Table 13 **is required** for all **external outfalls** as directed below. (Instructions, Page 61)

a. Are there any pollutants listed in the instructions (pages 55-62) believed present in the discharge?

☒ Yes ☐ No

b. Are there pollutants listed in Item 1.c. of Technical Report 1.0 which are believed present in the discharge and have not been analytically quantified elsewhere in this application?

☒ Yes ☐ No

If **yes** to either Items a **or** b, complete Table 13 as instructed.

Table 13 for Outfall No.: **001**

Samples are (check one): ☒ **Composites** ☐ **Grabs**

Pollutant	CASRN	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Analytical Method
Acetaldehyde	(75-07-0)	ND (250)				8315A
Formaldehyde	(50-00-0)	1,170				8315A
o-Xylene	(95-47-6)	ND (4)				624.1

7. TECHNICAL WORKSHEET 4.0 – RECEIVING WATERS

WORKSHEET 4.0
RECEIVING WATERS

This worksheet **is required** for all TPDES permit applications.

1. DOMESTIC DRINKING WATER SUPPLY (Instructions, Page 81)

a. There is a surface water intake for domestic drinking water supply located within 5 (five) miles downstream from the point/proposed point of discharge.

☐ Yes ☒ No

If **no**, stop here and proceed to Item 2. If **yes**, provide the following information:

i. The legal name of the owner of the drinking water supply intake: Click to enter text.

iii. The distance and direction from the outfall to the drinking water supply intake: Click to enter text.

b. Locate and identify the intake on the USGS 7.5-minute topographic map provided for Administrative Report 1.0.

☐ Check this box to confirm the above requested information is provided.

2. DISCHARGE INTO TIDALLY INFLUENCED WATERS (Instructions, Page 81)

If the discharge is to tidally influenced waters, complete this section. Otherwise, proceed to Item 3.

a. Width of the receiving water at the outfall: 1,600 feet

b. Are there oyster reefs in the vicinity of the discharge?

☐ Yes ☒ No

If **yes**, provide the distance and direction from the outfall(s) to the oyster reefs: Click to enter text.

c. Are there sea grasses within the vicinity of the point of discharge?

☐ Yes ☒ No

If **yes**, provide the distance and direction from the outfall(s) to the grasses: Click to enter text.

3. CLASSIFIED SEGMENT (Instructions, Page 81)

The discharge is/will be directly into (or within 300 feet of) a classified segment.

☒ Yes ☐ No

If **yes**, stop here. It is not necessary to complete Items 4 and 5 of this worksheet or Worksheet 4.1.

If **no**, complete Items 4 and 5 and Worksheet 4.1 may be required.

4. DESCRIPTION OF IMMEDIATE RECEIVING WATERS (Instructions, Page 82)

a. Name of the immediate receiving waters: Click to enter text.

b. Check the appropriate description of the immediate receiving waters:

☐ Lake or Pond
- Surface area (acres): Click to enter text.
- Average depth of the entire water body (feet): Click to enter text.
- Average depth of water body within a 500-foot radius of the discharge point (feet): Click to enter text.

☐ Man-Made Channel or Ditch
☐ Stream or Creek
☐ Freshwater Swamp or Marsh
☐ Tidal Stream, Bayou, or Marsh
☐ Open Bay
☐ Other, specify: Click to enter text.

If **Man-Made Channel or Ditch** or **Stream or Creek** were selected above, provide responses to Items 4.c – 4.g below:

c. For **existing discharges**, check the description below that best characterizes the area **upstream** of the discharge.

For **new discharges**, check the description below that best characterizes the area **downstream** of the discharge.

☐ Intermittent (dry for at least one week during most years)
☐ Intermittent with Perennial Pools (enduring pools containing habitat to maintain aquatic life uses)
☐ Perennial (normally flowing)

Check the source(s) of the information used to characterize the area upstream (existing discharge) or downstream (new discharge):

☐ USGS flow records
☐ personal observation
☐ historical observation by adjacent landowner(s)
☐ other, specify: Click to enter text.

d. List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point: Click to enter text.

e. The receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.).

☐ Yes ☐ No

If **yes**, describe how: Click to enter text.

f. General observations of the water body during normal dry weather conditions: Click to enter text.

Date and time of observation: Click to enter text.

g. The water body was influenced by stormwater runoff during observations.

☐ Yes ☐ No

If **yes**, describe how: Click to enter text.

5. GENERAL CHARACTERISTICS OF WATER BODY (Instructions, Page 82)

a. Is the receiving water upstream of the existing discharge or proposed discharge site influenced by any of the following (check all that apply):

- ☐ oil field activities
- ☐ agricultural runoff
- ☐ upstream discharges
- ☐ urban runoff
- ☐ septic tanks
- ☐ other, specify: Click to enter text.

b. Uses of water body observed or evidence of such uses (check all that apply):

- ☐ livestock watering
- ☐ non-contact recreation
- ☐ domestic water supply
- ☐ contact recreation
- ☐ fishing
- ☐ industrial water supply
- ☐ irrigation withdrawal
- ☐ navigation
- ☐ picnic/park activities
- ☐ other, specify: Click to enter text.

c. Description which best describes the aesthetics of the receiving water and the surrounding area (check only one):

- ☐ **Wilderness:** outstanding natural beauty; usually wooded or un-pastured area: water clarity exceptional
- ☐ **Natural Area:** trees or native vegetation common; some development evident (from fields, pastures, dwellings); water clarity discolored
- ☐ **Common Setting:** not offensive, developed but uncluttered; water may be colored or turbid
- ☐ **Offensive:** stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored

8. TECHNICAL WORKSHEET 5.0 – SEWAGE AND SLUDGE MANAGEMENT AND DISPOSAL

WORKSHEET 5.0
SEWAGE SLUDGE MANAGEMENT AND DISPOSAL

The following information **is required** for all TPDES permit applications that meet the conditions as outlined in Technical Report 1.0, Item 7.

1. SEWAGE SLUDGE SOLIDS MANAGEMENT PLAN (Instructions, Page 85)

a. Is this a new permit application or an amendment permit application?

☐ Yes ☒ No

b. Does or will the facility discharge in the Lake Houston watershed?

☐ Yes ☒ No

If **yes** to either Item 1.a **or** 1.b, attach a solids management plan.

Attachment: Click to enter text.

2. SEWAGE SLUDGE MANAGEMENT AND DISPOSAL (Instructions, Pages 85-86)

a. Check the box next to the sludge disposal method(s) authorized under the facility's existing permit (check all that apply).

☐ Permitted landfill
☐ Marketing and distribution by the permittee, attach Form TCEQ-00551
☐ Registered land application site, attach Form TCEQ-00565
☐ Processed by the permittee, attach Form TCEQ-00744
☐ Surface disposal site (sludge monofill), attach Form TCEQ-00744
☒ Transported to another WWTP
☐ Beneficial land application, attach Form TCEQ-10451
☐ Incineration, attach Form TCEQ-00744

Based on the selection(s) made above, complete and attach the required TCEQ forms as directed. Failure to submit the required TCEQ form will result in delays in processing the application

Attachment: Click to enter text.

b. Provide the following information for each disposal site:

Disposal site name: Republic Services, Inc. 5301 Brookglen, Houston, TX 77017

TCEQ Permit/Registration Number: TPDES Permit No. 1505A

County where disposal site is located: Harris

c. Method of sewage sludge transportation: ☒ truck ☐ train ☐ pipe ☐ other: Click to enter text.

TCEQ Hauler Registration Number: TCEQ 20064

Sludge is transported as a: ☐ liquid ☒ semi-liquid ☐ semi-solid ☐ solid

d. Purpose of land application: ☐ reclamation ☐ soil conditioning ☒ N/A

e. If sewage sludge is transported to another WWTP for treatment, attach a written statement or copy of contractual agreements confirming that the WWTP identified above will accept and be responsible for the sludge from this facility for the life of the permit (at least 5 years).

Attachment: Attachment I – Waste Disposal Contract

3. AUTHORIZATION FOR SEWAGE SLUDGE DISPOSAL (Instructions, Page 86)

a. If this is a new or major amendment application which requests authorization of a new sewage sludge disposal method, check the new sewage disposal method(s) requested for authorization (check all that apply):

- ☐ Marketing and distribution by the permittee, attach Form TCEQ-00551
- ☐ Processed by the permittee, attach Form TCEQ-00744
- ☐ Surface disposal site (sludge monofill), attach Form TCEQ-00744
- ☐ Beneficial land application, attach Form TCEQ-10451
- ☐ Incineration, attach Form TCEQ-00744

Based on the selection(s) made above, complete and attach any required TCEQ forms, as directed. Failure to submit the required TCEQ form will result in delays in processing the application

Attachment: Click to enter text

NOTE: New authorization for beneficial land application, incineration, processing, or disposal in the TPDES permit or TLAP **requires a major amendment to the permit**. New authorization for composting may require a major amendment to the permit. See the instructions to determine if a major amendment is required or if authorization for composting can be added through the renewal process.

ATTACHMENT A: PROOF OF PAYMENT

Occidental Chemical Corporation
OxyChem®
P. O. Box 2647
Houston, TX 77252-2647
Subsidiary of Occidental Petroleum Corporation

PAYMENT DOCUMENT
2002298544

TEXAS COMMISSION ON ENVIRONMENTAL
QUALITY FINANCIAL ADMINISTRATION
DIVISION CASHIERS OFFICE MC-214
12100 PARK 35 CIR
AUSTIN TX 78753

DATE	CHECK NO.
04/15/2024	0001053918

187911

DATE	INVOICE/CREDIT MEMO	COMPANY CODE	PO NUMBER	DISCOUNT	NET
4/11/2024 PERMIT NO WQ0000002000	WQ0000002000	375			2,015.00
			TOTAL >		*******2,015.00

THE ATTACHED CHECK IS IN PAYMENT FOR ITEMS DESCRIBED ABOVE

ATTACHMENT B: CORE DATA FORM

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (*If other is checked please describe in space provided.*)

☐ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.*)

☒ Renewal *(Core Data Form should be submitted with the renewal form)* ☐ Other

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number *(if issued)*
CN 600129126		RN 102518065

SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy)

☐ New Customer ☐ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)* — *If new Customer, enter previous Customer below:*

Oxy Vinyls, LP

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number *(if applicable)*
00119508-11	17315614267	76-156-14	

11. Type of Customer: ☐ Corporation ☐ Individual Partnership: ☐ General ☒ Limited
Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees
☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☒ 501 and higher

13. Independently Owned and Operated?
☐ **Yes** ☐ **No**

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☐ Owner ☐ Operator ☒ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant ☐ Other:

15. Mailing Address:

P.O. Box 849

City	State	ZIP	ZIP + 4
Pasadena	TX	77501	

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*

( ) -		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

☐ New Regulated Entity ☐ Update to Regulated Entity Name ☒ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name *(Enter name of the site where the regulated action is taking place.)*

Pasadena PVC

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	4403 Pasadena Fwy							
	City	Pasadena	**State**	TX	**ZIP**	77503	**ZIP + 4**	1111
24. County	Harris							

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:					
26. Nearest City			**State**		**Nearest ZIP Code**

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:	29.728906		**28. Longitude (W) In Decimal:**	-95.150492	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)
2821	2869	325211	325110

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

Manufactures polyvinyl chloride resin

34. Mailing Address:	**P.O. Box 849**							
	City	**Pasadena**	**State**	**TX**	**ZIP**	**77501**	**ZIP + 4**	
35. E-Mail Address:								

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
( ) -		( ) -

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☒ Industrial Hazardous Waste
				38423
☐ Municipal Solid Waste	☒ New Source Review Air	☐ OSSF	☒ Petroleum Storage Tank	☒ PWS
	18384		72081	1011177
☐ Sludge	☒ Storm Water	☒ Title V Air	☐ Tires	☐ Used Oil
	TXR05O094	HG1451S account #, 1362		
☐ Voluntary Cleanup	☒ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☒ Other: Sewage
	WQ0000002000			1010943

SECTION IV: Preparer Information

40. Name:	Cydney Schwarzlose	41. Title:	Project Manager

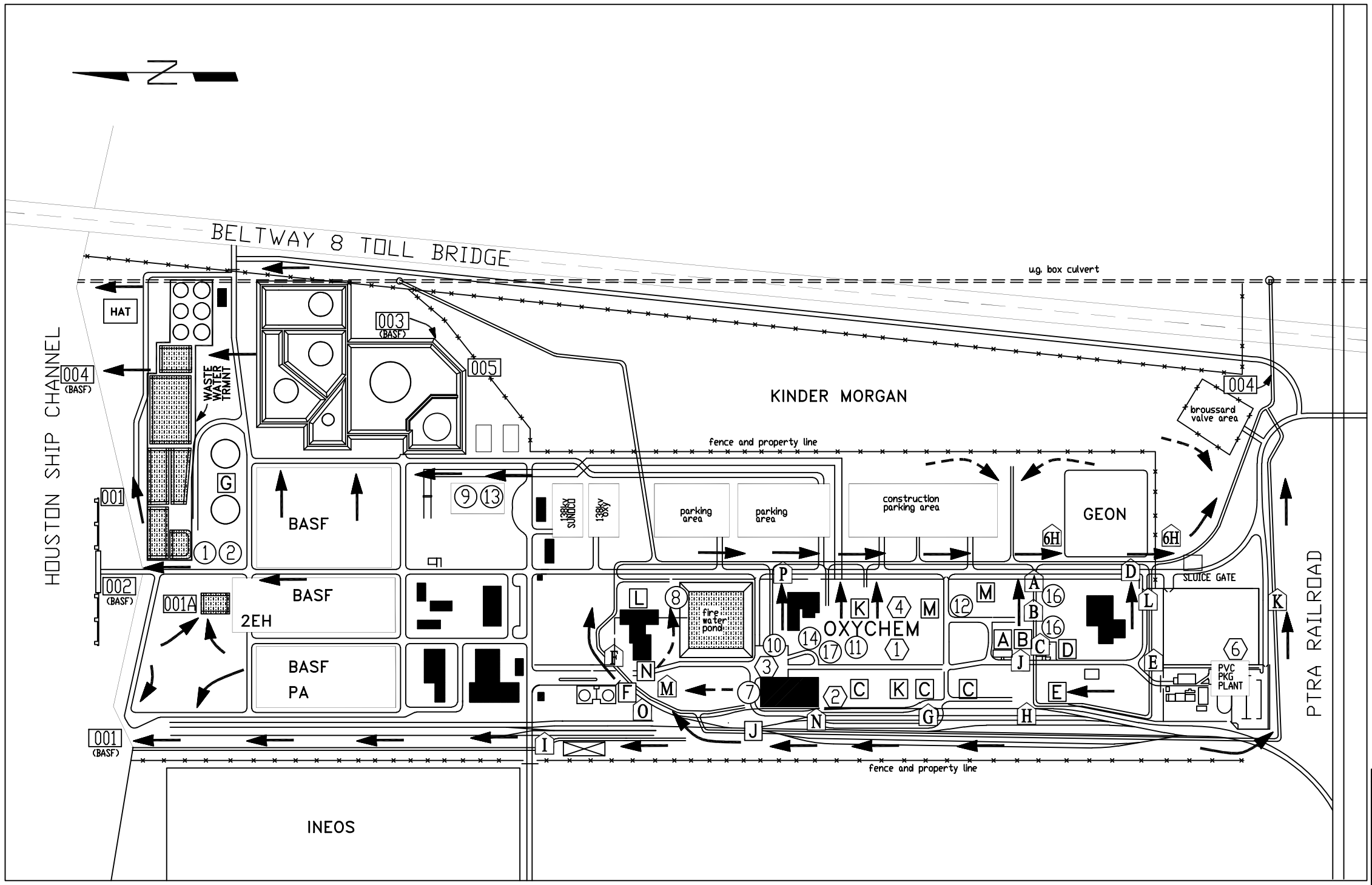
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(512) 810-8314		( ) -	CSchwarzlose@bgeinc.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Oxy Vinyls, LP	**Job Title:**	Plant Manager
Name *(In Print):*	Eric Delgado	**Phone:**	(281) 884- 4020
Signature:	E Delgado	**Date:**	4/11/2024

ATTACHMENT C: FACILITY SITE MAP



APROXIMATELY 105 ACRES

LEGEND

① PVC LOADING (ALC)
② PVC RAIL LOADING
③ CAUSTIC UNLOADING
④ PROCESS RAW MATERIAL
⑤ PROCESS WASTEWATER TREATMENT
⑥ PVC BAG LOADING

① CHLORINE CONTACT CHAMBER
② DOMESTIC TREATMENT
③ (HOLD)
④ (HOLD)
⑤ (HOLD)
⑥ (HOLD)
⑦ GRAVITY FED GASOLINE TANK D-415
⑧ DIESEL TANKS Z09-D-95 A/B
⑨ GASOLINE TANK PCI-D-407
⑩ DIESEL TANK PCI-D-404
⑪ DIESEL TANK PCI-D-406
⑫ DRUMMED OIL & LUBRICATION
⑬ PORTABLE DIESEL TANK Z00-D-113
⑭ DIESEL TANK PCI-D-405
⑮ (HOLD)
⑯ REW TANKS
⑰ CAUSTIC STORAGE TANK

Ⓐ R-317,318,319 BLDG. UNLOADING/LOADING
Ⓑ HCl SCRUBBER
Ⓒ DRYER SILO BAGHOUSES
Ⓓ SWEEPS PVC STORAGE
Ⓔ /UNLOADING
Ⓕ VCM SPHERES
Ⓖ AMMONIA STORAGE (HOUSTON AMMONIA TERMINAL)
~~Ⓗ HAY FILTER IN DITCH~~
Ⓙ RQ SPILL
Ⓚ CONCRETE AND PAVED AREA
Ⓛ FERTILIZED VEGETATION AREA
Ⓜ HERBICIDES ON ROCKS AREA
Ⓝ VEHICLE MAINTENANCE

⬡ HAY FILTERS (A-P, + (2) 6H)

VEGETATION SWALES
DIRECTION OF DRAINAGE
001 OUTFALL NUMBER DESIGNATION
PONDS

NO.	DATE	ISSUED AND REVISION	DWN.	CHK'K	DATE	APP'D	DATE
4	3/14	AS-BUILT	JFD	WAG	3/14		
7	2/23	2023 UPDATE	DAC	ZBO	2/23		
6	5/20	MOC#20-5785 HAY FILTERS	DAC	MFH	5/20		
5	11/16	2016 UPDATE	DAC	JDD	11/16		

FILE NAME: Z00-A-214.DWG

OCCIDENTAL CHEMICAL CORP.
PASADENA PVC PLANT
HARRIS COUNTY, TEXAS

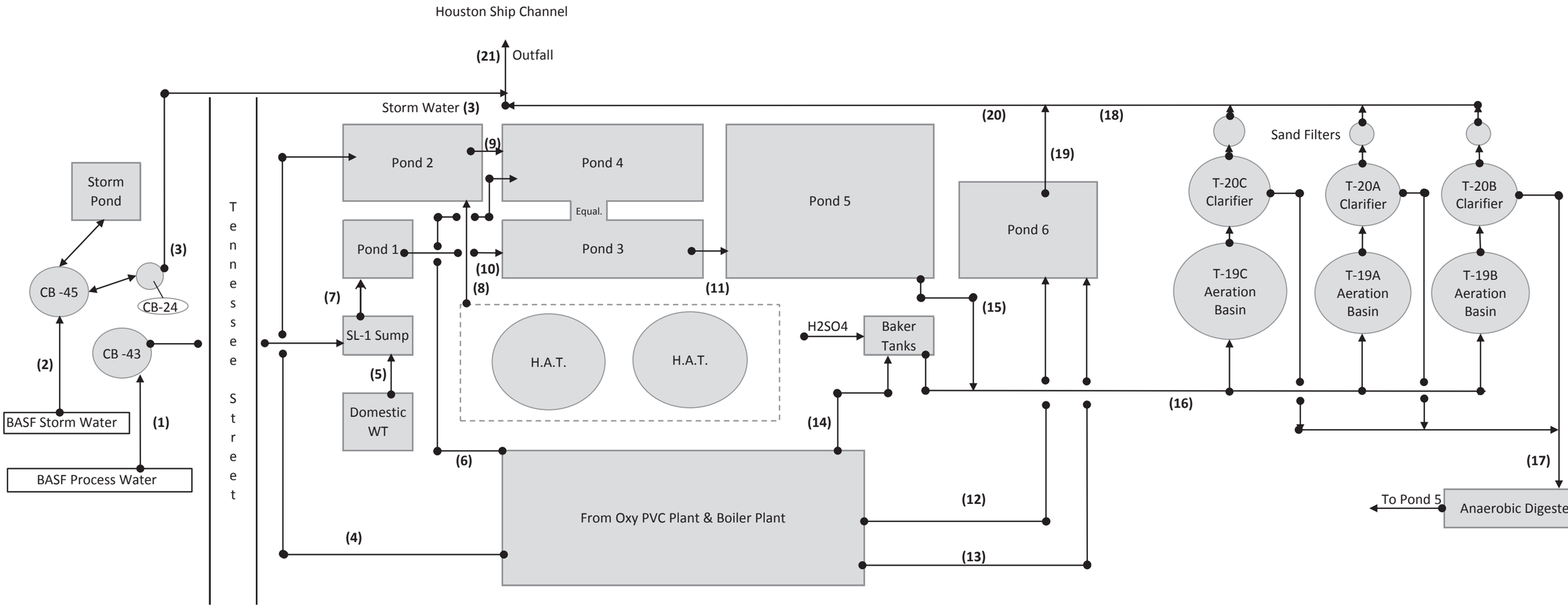
DWN. GARDIN DATE 3/96 | CHKD. DATE
OTHER APPROVALS DATE DATE | APPROVED FOR CONSTRUCTION: DATE

TITLE
PROPERTY PLOT PLAN
PASADENA STORM WATER DRAINAGE

MATERIAL LIST	JOB NO.	DRAWING NO.	REV.
BY DATE SCALE		C-OXY-Z00-A-214	7

ATTACHMENT D: FLOW SCHEMATIC

OxyChem Pasadena Waste Treatment System - Typical Flow Pattern of Major Streams



Stream	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Description	BASF Process Water	Storm Water	Storm Water to Channel	Sol'n Prep / Bottoms Sump	Domestic Sewage	CEW (Centrifuge Effluent)	SL-1 Flow	H.A.T. Storm Water	Pond 2 to Pond 4	Pond 1 to Pond 3	Pond 3 to Pond 5	BASF & Oxy Cooling Tower Blowdowns	Oxy Regen. Water	REW (Reactor Effluent)	Pond 5 to Influent	BWTU Influent	Clarifier Wasting	Internal 101	Pond 6 to Outfall	001 Outfall Flow	Channel Discharge
Avg Flow (GPM)	200	Varies	Varies	10	5	1065	205	Varies	10	205	1280	150	150	300	1300	1600	20	1580	300	1880	1880**

Waste Treatment PFD MJP 01/21/2013 rev0

**Does not include intermittent storm water flow

ATTACHMENT E: COOLING TOWER ADDITIVES

Attachment E
Summary of Cooling Tower Chemical Additives

Mfg.	Manufacturer's Product Identification Number	Product Use	Chemical Composition	Corresponding CAS Number	Toxicity			Frequency of product use
					Species and Test	LC50 and NOEL	Concentration	
ChemTreat	CL41	Cooling Water Microbiocide	Sodium bromide (40%)	7647-15-6	Ceriodapnia dubia - 48 hr	LC50	7,650 mg/l	24/7/365
					Fathead Minnow - 96 hr	LC50	>10,000 mg/l	
					Mysid Shrimp - 48 hr	LC50	>10,000 mg/l	
					Sheepshead Minnow - 96 hr	LC50	>10,000 mg/l	
ChemTreat	CL5683	Cooling Water Treatment	Reactive Polyhydroxy Complex, RPC (5 - < 10%)		Ceriodapnia dubia -48 hr	LC50	750 mg/l	24/7/365
					Fathead minnow - 96 hr	LC50	314 mg/l	
			Sodium hydroxide (5 - < 10%)	1310-73-2	Ceriodaphnia dubia - 48 hr	EC50	34.59 - 47.13 mg/l	
					Gambusia affinis	LC50	125 mg/l	
			Chlorotolyltriazole sodium salt (3 - < 5%)	202420-04-0	Ceriodapnia dubia -48 hr	LC50	750 mg/l	
					Fathead minnow - 96 hr	LC50	314 mg/l	
			Other components below reportable levels (80 - 90%)		Ceriodapnia dubia -48 hr	LC50	750 mg/l	
					Fathead minnow - 96 hr	LC50	314 mg/l	
ChemTreat	CL7023	Cooling Water Treatment	2-phosphonobutane-1,2,4-tricarboxylic Acid (10 - < 20%)	37971-36-1	Ceriodaphnia dubia - 48 hr	LC50	1,340 mg/l	24/7/365
			Other components below reportable levels (80 - 90%)		Fathead minnow - 96 hr	LC50	3,055 mg/l	

SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Name:	Chemical Treatment CL41
Product Use:	Cooling Water Microbiocide
Supplier's Name:	ChemTreat, Inc.
Emergency Telephone Number:	(800)424−9300 (Toll Free)
Address (Corporate Headquarters):	5640 Cox Road Glen Allen, VA 23060
Telephone Number for Information:	(800)648−4579
Date of SDS:	May 13, 2019
Revision Date:	May 13, 2019
Revision Number:	19051301AN

Section 2. Hazard(s) Identification

Signal Word: **None**

GHS Classification(s): Non−Hazardous Substance

Hazard Statement(s): Non−Hazardous Substance

Precautionary Statement(s):

Prevention: P264 Wash thoroughly after handling.

Response: P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
P301 + 330 + 331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P314 Get medical advice/attention if you feel unwell.

Storage: None.

Disposal: None.

System of Classification Used: Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazards Not Otherwise Classified: None.

Section 3. Composition/Hazardous Ingredients

Component	CAS Registry #	Wt.%
Sodium bromide	7647−15−6	40

Comments If chemical identity and/or exact percentage of composition has been withheld, this information is considered to be a trade secret.

Section 4. First Aid Measures

Inhalation: Call a POISON CENTER or doctor/physician if you feel unwell.

Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Skin: Call a poison center or doctor/physician if you feel unwell.

Ingestion: Rinse mouth. Call a poison center or doctor/physician if you feel unwell.

Most Important Symptoms: N/D

Indication of Immediate Medical Attention and Special Treatment Needed, If Necessary: Have the product container, label or MSDS with you when calling a poison control center or doctor, or when going for treatment.

Section 5. Fire Fighting Measures

Flammability of the Product: Not flammable.

Suitable Extinguishing Media: Use extinguishing media suitable to surrounding fire.

Specific Hazards Arising from the Chemical: None known.

Protective Equipment: If product is involved in a fire, wear full protective clothing including a positive−pressure, NIOSH approved, self−contained breathing apparatus.

Section 6. Accidental Release Measures

Personal Precautions: Use appropriate Personal Protective Equipment (PPE).

Environmental Precautions: Do not discharge effluent containing this product into lakes, ponds, streams, estuaries, oceans or public waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

Methods for Cleaning up: Contain and recover liquid when possible. Flush spill area with water spray.

Other Statements: None.

Section 7. Handling and Storage

Handling: Wear appropriate Personal Protective Equipment (PPE) when handling this product. Do not get in eyes, or on skin and clothing. Wash thoroughly after handling. Do not ingest. Avoid breathing vapors, mist or dust.

Storage: Store away from incompatible materials (see Section 10). Store at ambient temperatures. Keep container securely closed when not in use. Label precautions also apply to empty container. Recondition or dispose of empty containers in accordance with government regulations. For Industrial use only.
Store above Freeze Point.

Section 8. Exposure Controls/Personal Protection

Exposure Limits

Component	Source	Exposure Limits
Sodium bromide	N/E	N/E

Engineering Controls: Use only with adequate ventilation. The use of local ventilation is recommended to control emission near the source.

Personal Protection

Eyes: Wear chemical splash goggles or safety glasses with full−face shield. Maintain eyewash fountain in work area.

Skin: Wear appropriate chemical resistant gloves.

Respiratory: Under normal use conditions, this product does not create airborne exposures above the OSHA PEL for listed constituents.

Section 9. Physical and Chemical Properties

Physical State and Appearance:	Liquid, Colorless, Clear
Specific Gravity:	1.432 @ 20°C
pH:	7.5 @ 20°C, 100.0%
Freezing Point:	<−11°F
Flash Point:	N/D
Odor:	Odorless
Melting Point:	N/D
Initial Boiling Point and Boiling Range:	N/D
Solubility in Water:	N/D
Evaporation Rate:	N/A
Vapor Density:	N/D
Molecular Weight:	N/D
Viscosity:	<100 CPS @ 20°C
Flammability (solid, gas):	N/D
Flammable Limits:	N/A
Autoignition Temperature:	N/A
Density:	11.94 LB/GA
Vapor Pressure:	N/D
% VOC:	0
Odor Threshold	N/D
n−octanol Partition Coefficient	N/D

Decomposition Temperature N/D

Section 10. Stability and Reactivity

Chemical Stability: Stable at normal temperatures and pressures.

Incompatibility with Various Substances: Strong acids, Strong oxidizers.

Hazardous Decomposition Products: Bromine.

Possibility of Hazardous Reactions: None known.

Reactivity: N/D

Conditions To Avoid: N/D

Section 11. Toxicological Information

Acute Toxicity

Chemical Name	Exposure	Type of Effect	Concentration	Species
Sodium bromide	Oral	LD50	3500 MG/KG	Rat
	Dermal	LD50	2000 MG/KG	Rabbit
Chemical Treatment CL41	Oral	LD50	>5000 MG/KG	Rat
	Dermal	LD50	>2000 MG/KG	Rabbit

Carcinogenicity Category

Component	Source	Code	Brief Description
Sodium bromide	N/E	N/E	N/E

Likely Routes of Exposure: N/D

Symptoms

Inhalation: N/D

Eye Contact: N/D

Skin Contact: N/D

Ingestion: N/D

Skin Corrosion/Irritation: N/D

Serious Eye Damage/Eye Irritation: N/D

Sensitization: N/D

Germ Cell Mutagenicity: N/D

Reproductive/Developmental Toxicity: N/D

Specific Target Organ Toxicity

Single Exposure: N/D

Repeated Exposure: N/D

Aspiration Hazard: N/D

Comments: None.

Section 12. Ecological Information

Ecotoxicity

Species	Duration	Type of Effect	Test Results
Ceriodaphnia dubia	48h	LC50	7650 mg/l
Fathead Minnow	96h	LC50	>10000 mg/l
Mysid Shrimp	48h	LC50	>10000 mg/l
Sheepshead Minnow	96h	LC50	>10000 mg/l

Persistence and Biodegradability: N/D

Bioaccumulative Potential: N/D

Mobility In Soil: N/D

Other Adverse Effects: N/D

Comments: Based on active ingredient

Section 13. Disposal Considerations

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.
CONTAINER DISPOSAL: Non−refillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by procedures approved by state and local authorities.

Section 14. Transport Information

Controlling Regulation	UN/NA#:	Proper Shipping Name:	Technical Name:	Hazard Class:	Packing Group:
DOT	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
IMDG	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
TDG	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
ICAO	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A
ANTT	N/A	COMPOUND, INDUSTRIAL WATER TREATMENT, LIQUID	N/A	N/A	N/A

Note: N/A

Section 15. Regulatory Information

Inventory Status

United States (TSCA): All ingredients listed.
Canada (DSL/NDSL): All ingredients listed.

Federal Regulations

SARA Title III Rules

Sections 311/312 Hazard Classes

Fire Hazard:	No
Reactive Hazard:	No
Release of Pressure:	No
Acute Health Hazard:	No
Chronic Health Hazard:	No

Other Sections

Component	Section 313 Toxic Chemical	Section 302 EHS TPQ	CERCLA RQ
Sodium bromide	N/A	N/A	N/A

Comments: None.

State Regulations

California Proposition 65: None known.

Special Regulations

Component	States
Sodium bromide	None.

Compliance Information

NSF: N/A

Food Regulations: N/A

KOSHER: This product is certified by the Orthodox Union as Kosher for Passover and year−round use.
Only when prepared by the following ChemTreat facilities: Ashland, VA; Eldridge, IA; Nederland, TX; Fontana, CA.

Halal: This product has not been evaluated for Halal approval.

FIFRA: Registered pesticide under 40 CFR 152.10, Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), EPA Registration Number: 15300−26.

Other: PMRA biocide registration NO. 30146.

Comments: None.

Section 16. Other Information

HMIS Hazard Rating

Health:	0
Flammability:	0
Physical Hazard:	0
PPE:	X

Notes: The PPE rating depends on circumstances of use. See Section 8 for recommended PPE.
The Hazardous Material Information System (HMIS) is a voluntary, subjective alpha−numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator's understanding of the chemical associated risks. The end−user must determine if the code is appropriate for their use.

Abbreviations

Abbreviation	Definition
<	Less Than
>	Greater Than
ACGIH	American Conference of Governmental Industrial Hygienists
EHS	Environmental Health and Safety Dept
N/A	Not Applicable
N/D	Not Determined
N/E	Not Established
OSHA	Occupational Health and Safety Dept
PEL	Personal Exposure Limit
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weight Average
UNK	Unknown

Prepared by: Product Compliance Department; ProductCompliance@chemtreat.com

Revision Date: May 13, 2019

Disclaimer

Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, ChemTreat, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will ChemTreat, Inc. be responsible for damages of any nature whatsoever resulting from the use or reliance upon information. No representation or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature are made hereunder with respect to information or the product to which information refers.

SAFETY DATA SHEET

1. Identification

Product identifier **CL5683**

Other means of identification

Product code CL5683

Recommended use Cooling Water Treatment

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name ChemTreat

Address 5640 Cox Road
Glen Allen, VA 23060
United States

Telephone 800-648-4579

E-mail Not available.

Emergency phone number 800-424-9300

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Sensitization, skin	Category 1
Specific target organ toxicity, repeated exposure	Category 2

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention Do not breathe mist/vapors. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

Response If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Reactive Polyhydroxy Complex, RPC		proprietary	5 - < 10
Sodium hydroxide		1310-73-2	5 - < 10
Chlorotolyltriazole sodium salt		202420-04-0	3 - < 5
Other components below reportable levels			80 - < 90

4. First-aid measures

Inhalation
Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact
Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion
Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed
Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General information
If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
Move containers from fire area if you can do so without risk.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards
No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up
Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions
Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling Do not breathe mist/vapors. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Reactive Polyhydroxy Complex, RPC	PEL	2 mg/m3
Sodium hydroxide (CAS 1310-73-2)	PEL	2 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Reactive Polyhydroxy Complex, RPC	TWA	2 mg/m3	Inhalable fraction.
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Reactive Polyhydroxy Complex, RPC	TWA	2 mg/m3
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection If ventilation is insufficient, suitable respiratory protection must be provided.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Liquid.

Color Brown

Odor Mild

Odor threshold Not available.

pH 13 - 14

Melting point/freezing point	15.80 °F (-9.00 °C)
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	0 - 200 cps
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Pounds per gallon	10.29
Specific gravity	1.21 - 1.24 @ 20C

10. Stability and reactivity

Reactivity	Reacts violently with strong acids. This product may react with oxidizing agents.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials. Do not mix with other chemicals.
Incompatible materials	Strong acids. Oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns. May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity	Not known.
Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Causes serious eye damage.

Respiratory or skin sensitization

Respiratory sensitization Not a respiratory sensitizer.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful. May cause damage to organs through prolonged or repeated exposure.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Product		Species	Test Results
CL5683			
Aquatic			
Crustacea	LC50	Ceriodaphnia dubia	750 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	314 mg/l, 96 hours

Components		Species	Test Results
Sodium hydroxide (CAS 1310-73-2)			
Aquatic			
Acute			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	34.59 - 47.13 mg/l, 48 hours
Fish	LC50	Western mosquitofish (Gambusia affinis)	125 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel]
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1760
UN proper shipping name	Corrosive liquids, n.o.s. (Sodium hydroxide RQ = 10152 LBS and Chlorotolyltriazole sodium salt)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	II
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	B2, IB2, T11, TP2, TP27
Packaging exceptions	154
Packaging non bulk	202
Packaging bulk	242

IATA

UN number	UN1760
UN proper shipping name	Corrosive liquid, n.o.s. (Sodium hydroxide and Chlorotolyltriazole sodium salt)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	8L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

UN number	UN1760
UN proper shipping name	CORROSIVE LIQUID, N.O.S. (Sodium hydroxide and Chlorotolyltriazole sodium salt)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-B
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

DOT

IATA; IMDG

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Sodium hydroxide (CAS 1310-73-2) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

Classified hazard categories
Skin corrosion or irritation
Serious eye damage or eye irritation
Respiratory or skin sensitization
Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Sodium hydroxide (CAS 1310-73-2)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 11-02-2022

Version # 01

HMIS® ratings Health: 3*
Flammability: 0
Physical hazard: 0

Disclaimer ChemTreat cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available. Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, ChemTreat, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will ChemTreat, Inc. be responsible for damages of any nature whatsoever resulting from the use or reliance upon information. No representation or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature are made hereunder with respect to information or the product to which information refers.

Other information Prepared by: Product Compliance Department; ProductCompliance@chemtreat.com

SAFETY DATA SHEET

1. Identification

Product identifier CL7023

Other means of identification None.

Recommended use Cooling Water Treatment

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name ChemTreat

Address 5640 Cox Road
Glen Allen, VA 23060
United States

Telephone 800-648-4579

E-mail Not available.

Emergency phone number 800-424-9300

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards

Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Causes severe skin burns and eye damage. Causes serious eye damage.

Precautionary statement

Prevention Do not breathe mist/vapors. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information 32.54% of the mixture consists of component(s) of unknown acute oral toxicity. 32.54% of the mixture consists of component(s) of unknown acute dermal toxicity. 32.54% of the mixture consists of component(s) of unknown acute inhalation toxicity. 32.54% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 32.54% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
2-phosphonobutane-1,2,4-tricarboxylic Acid		37971-36-1	10 - < 20*
Other components below reportable levels			80 - < 90

4. First-aid measures

Inhalation
Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact
Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion
Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed
Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Indication of immediate medical attention and special treatment needed
Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General information
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical
During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions
Move containers from fire area if you can do so without risk.

Specific methods
Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards
No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up
Should not be released into the environment.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling
Do not breathe mist/vapors. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities
Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value	Form
2-phosphonobutane-1,2,4-tricarboxylic Acid (CAS 37971-36-1)	TWA	10 mg/m3	Aerosol.

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear appropriate chemical resistant clothing.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Liquid.

Form Liquid.

Color Yellow

Odor Mild

Odor threshold Not available.

pH 1.1

Melting point/freezing point 30.2 °F (-1 °C) / 30.20 °F (-1.00 °C)

Initial boiling point and boiling range 211.95 °F (99.97 °C) estimated

Flash point 212.2 °F (100.1 °C) estimated

Evaporation rate Not available.

Flammability (solid, gas) Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%) Not available.

Flammability limit - upper (%) Not available.

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure 0.00001 hPa estimated

Vapor density Not available.

Relative density Not available.

Solubility(ies)

Solubility (water) Not available.

Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

Other information

Density	9.62 lb/gal
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
Percent volatile	67.46 % estimated
Specific gravity	1.15

10. Stability and reactivity

Reactivity	Reacts violently with strong alkaline substances. This product may react with reducing agents.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials. Do not mix with other chemicals.
Incompatible materials	Bases. Reducing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity	Not known.
Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Causes serious eye damage.

Respiratory or skin sensitization

Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Product		Species	Test Results
CL7023			
Aquatic			
Acute			
Crustacea	LC50	Water flea (Ceriodaphnia dubia)	1340 mg/l, 48 h
Fish	LC50	Fathead minnow (Pimephales promelas)	3055 mg/l, 96 h

Persistence and degradability No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code D002: Waste Corrosive material [pH <=2 or =>12.5, or corrosive to steel]
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number UN3265
UN proper shipping name Corrosive liquid, acidic, organic, n.o.s. (2-phosphonobutane-1,2,4-tricarboxylic Acid)
Transport hazard class(es)
Class 8
Subsidiary risk -
Label(s) 8
Packing group II
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Special provisions B2, IB2, T11, TP2, TP27
Packaging exceptions 154
Packaging non bulk 202
Packaging bulk 242

IATA

UN number UN3265
UN proper shipping name Corrosive liquid, acidic, organic, n.o.s. (2-phosphonobutane-1,2,4-tricarboxylic Acid)
Transport hazard class(es)
Class 8
Subsidiary risk -
Label(s) 8
Packing group II
Environmental hazards No.
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN3265
UN proper shipping name	Corrosive liquid, acidic, organic, n.o.s. (2-phosphonobutane-1,2,4-tricarboxylic Acid)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not established.

DOT

IATA; IMDG

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical	Yes
Classified hazard categories	Skin corrosion or irritation Serious eye damage or eye irritation

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 02-16-2021

Revision date 11-08-2021

Version # 02

HMIS® ratings

Health: 3
Flammability: 0
Physical hazard: 0
Personal protection: B

Disclaimer

ChemTreat cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available. Although the information and recommendations set forth herein (hereinafter "information") are presented in good faith and believed to be correct as of the date hereof, ChemTreat, Inc. makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will ChemTreat, Inc. be responsible for damages of any nature whatsoever resulting from the use or reliance upon information. No representation or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature are made hereunder with respect to information or the product to which information refers.

Other information Prepared by: Product Compliance Department; ProductCompliance@chemtreat.com

ATTACHMENT F: STORMWATER MANAGEMENT (TECHNICAL REPORT ITEM 6)

Technical Report, Item 6, Stormwater Management

The facility is designed to segregate potentially impacted stormwater for treatment. Most of the main process area is covered, preventing exposure of materials to precipitation. Curbing is used to prevent exposure of materials to runoff. PVC resin can be exposed to precipitation and runoff as a result of railcar loading operations. Releases from aboveground tanks and pipelines can expose materials to precipitation and runoff, although Oxy Vinyls has instituted controls and best management practices to reduce the incidence and impact of leaks. Oxy Vinyls personnel adhere to a facility Stormwater Pollution Prevention Plan.

ATTACHMENT G: THIRD PARTY WASTES

Attachment G

Oxy Vinyls, LP TPDES Permit No. 00002000

Third Party Wastewater Contributors

BASF

Address:
BASF
P.O. Box 600
Pasadena, Texas 77501-0600
4403 Pasadena Freeway, Pasadena, TX 77503-1119

Products	Production Volumes
2-Ethylhexanol (2-EH, CAS 104-76-7)	
2-Ethylhexyl Terephthalate (6422-86-2)	

Wastes received: Oxy Vinyls receives process wastewater (average flow rate 190 gpm), utility wastewater (cooling tower blowdown, washdown water, and condensate – average combined flow 60 gpm), sanitary wastewater (average flow < 5 gpm), and stormwater runoff (intermittent and variable flow) from the adjacent BASF facility (formerly Sunoco and Enron). BASF manufactures the products listed above and has SIC Codes 2869 and 2865, NAICS Codes 325199 and 32519.

Information on compatibility: The wastewater streams from BASF are similar in composition to those generated by Oxy Vinyls and are compatible with the biological treatment process used by Oxy Vinyls.

Source of waste/Description of process wastewater generating process
Process wastewater from plasticizer manufacturing consists mostly of blowdown from the waste gas scrubbers. Gases generated during production are routed through catalytic oxidizers to destroy organics before routing to the scrubbers. Caustic is used to neutralize the scrubber blowdown before routing the wastewater to the treatment system at Oxy Vinyls.

Additional process wastewater is generated by chemical reactions that occur within the BASF Plasticizer Unit. This includes the wastewater generated by water washing plasticizer between campaigns. This wastewater is routed to Oxy Vinyls as well. Wastewater generated from hydroblasting/water washing for maintenance preparation is also routed to Oxy Vinyls.

Aurora Plastics

Address:
Aurora Plastics
P.O. Box 7408
Pasadena, TX 77508-7408

Aurora Plastics (formerly JPI South, Inc.) is a compounding facility that blends different grades of PVC (SIC Code 3087, NAICS Code 325991) and manufactures plastic electrical conduit. Oxy Vinyls receives a relatively small flow of cooling tower blowdown and treated sanitary wastewater from Aurora Plastics. Aurora Plastics maintains their own sanitary package treatment plant.

Houston Ammonia Terminal

Address:
Houston Ammonia Terminal
P.O. Box 46, Pasadena, Texas 77501-0046
4403 Pasadena Freeway, Pasadena, Texas 77503-119

Source of Waste: Oxy Vinyls receives intermittent and variable stormwater runoff from the Houston Ammonia Terminal. Oxy Vinyls also receives small (<5 gpm) discharges of sanitary wastewater from Houston Ammonia Terminal.

ATTACHMENT H: LABORATORY INFORMATION

Attachment H

Oxy Vinyls, LP TPDES Permit No. 00002000

Laboratory Information

Enthalpy Analytical

Contact Information:

2525 West Bellfort, Suite 175
Houston, Texas 77054
713-666-0020
www.enthalpy.com

Pollutants Analyzed:

Ammonia Nitrogen
BOD
BOD, Carbonaceous
Chemical Oxygen Demand
Chloride
Fluoride
Nitrate Nitrogen
Oil and Grease
Sulfate
Total Alkalinity
Total Dissolved Solids
Total Organic Carbon
Total Organic Nitrogen
Total Phosphorus
Total Suspended Solids
Aluminum
Antimony
Arsenic
Barium
Beryllium
Cadmium
Chromium
Copper
Cyanide
Lead
Nickel
Selenium
Silver
Thallium
Zinc
Acrylonitrile
Benzene
Bromodichloromethane [Dichlorobromomethane]
Chloroform
1,2-Dibromomethane

1,2-Dichloroethane
1,1-Dichloroethene
Methylene Chloride
1,2-Dichloropropane
1,3-Dichloropropene
Ethylbenzene
Fluoride
Methyl ethyl ketone
1,1,2,2-Tetrachloroethane
Tetrachloroethene
Toluene
1,1,1-Trichloroethane
1,1,2-Trichloroethane
Trichloroethene
Vinyl Chloride
Enterococci
Nitrate-Nitrite (as N)
Sulfide (as S)
Acrolein
Acrylonitrile
Benzene
Bromoform
Carbon tetrachloride
Chlorobenzene
Dibromochloromethane
Chloroethane
2-Chloroethylvinyl ether
1,1-Dichloroethane
1,2-Dichloroethane
Bromomethane
Chloromethane
Tetrachloroethylene
1,2-Trans-dichloroethylene
Trichloroethylene
2-Chlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
4,6-Dinitro-o-cresol
2,4-Dinitrophenol
2-Nitrophenol
4-Nitrophenol
p-Chloro-m-cresol
Pentachlorophenol
Phenol
2,4,6-Trichlorophenol
Acenaphthene
Acenaphthylene
Anthracene

Benzidine
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(g,h,i)perylene
Benzo(k)fluoranthene
bis(2-Chloroethoxy) methane
bis(2-Chloroethyl) ether
bis(2-Chloroisopropyl) ether
bis(2-Ethylhexyl) phthalate
4-Bromophenylphenyl ether
Butylbenzyl phthalate
2-Chloronaphthalene
4-Chlorophenylphenyl ether
Chrysene
Dibenzo(a,h)anthracene
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
3,3'-Dichlorobenzidine
Diethyl phthalate
Dimethyl phthalate
Di-n-Butyl phthalate
2,4-Dinitrophenol
2,6-Dinitrotoluene
Di-n-octyl phthalate
1,2-Diphenylhydrazine
Fluoranthene
Fluorene
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclopentadiene
Hexachloroethane
Indeno(1,2,3-cd) pyrene
Isophorone
Naphthalene
Nitrobenzene
N-Nitrosodimethylamine
N-Nitrosodi-n-propylamine
Phenanthrene
Pyrene
1,2,4-Trichlorobenzene
Acetaldehyde
Formaldehyde
o-Xylene
TTHM, Total Trihalomethanes

a&b Labs

Contact Information:
10100 East Freeway, Suite 100
Houston, Texas 77029
713-453-6060
www.ablabs.com

Pollutants Analyzed:
Mercury
Anthracene
Benzidine
Benzo(a)anthracene
Benzo(a)pyrene
Bis(2-chloroethyl) ether
Bis(2-ethylhexyl) phthalate
Chrysene
m-Cresol
o-Cresol
p-Cresol
m-Dichlorobenzene
o-Dichlorobenzene
p-Dichlorobenzene
3,3'-Dichlorobenzidine
2,4-Dimethylphenol
Di-n-Butyl phthalate
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclopentadiene
Hexachloroethane
Nitrobenzene
N-Nitrosodiethylamine
N-Nitroso-di-n-butylamine
Nonylphenol
Pentachlorobenzene
Pentachlorophenol
Phenanthrene
Total PCBs
Pyridine
1,2,4,5-Tetrachlorobenzene
2,4,5-Trichlorophenol

ATTACHMENT I: WASTE DISPOSAL CONTRACT

REPUBLIC SERVICES

Sustainability in Action

3/8/2024

Oxy Vinyls, LP - Pasadena / Deer Park PVC
Zach Oliver
Environmental Engineer
Oxy Vinyls, LP - Pasadena / Deer Park PVC
281-884-4047

Dear Zach,

Republic Services located at 5301 Brookglen Drive, Houston, Tx 77017 currently accepts and will continue to accept untreated non contaminated sewage for Oxy Vinyls, LP - Pasadena / Deer Park PVC as it may occur during maintenance activities. This untreated sewage will be vacuumed into our vacuum tankers and transported to the above-mentioned site for disposal/processing.

Thank you for your business. We would like to express our appreciation for allowing us to manage your environmental service needs. Republic Services is dedicated to the service excellence and our mission is to exceed our customers' highest expectations.

Darryl Benjamin

Operations Manager
5301 Brookglen Dr.
Houston, TX 77017
e Dbenjamin@republicservices.com
o 832-386-2319
c 318-286-6859
w RepublicServices.com
Emergency Response 800-839-3975

April 16, 2024

HAND DELIVERED

Texas Commission on Environmental Quality
Water Quality Division
Applications Review and Processing Team, MC-148
P.O. Box 13087
Austin, TX 78711-3087

RE: Industrial Wastewater Permit Application for Renewal
Supplemental Permit Information Form (SPIF)
Oxy Vinyls, LP
TPDES Permit No. WQ0000002000 (EPA ID No. TX0006335)

On behalf of Oxy Vinyls, LP, BGE, Inc. is submitting the enclosed Supplemental Permit Information Form (SPIF) as required in the industrial wastewater permit renewal application instructions.

If you have any questions or require additional information, please contact Zachary Oliver at 281-884-4047 or Zachary_Oliver@oxy.com.

Sincerely,

Cydney Schwarzlose
Director

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING INDUSTRIAL TPDES WASTEWATER PERMIT APPLICATIONS

TCEQ USE ONLY:

Application type: _____Renewal _____Major Amendment ____Minor Amendment _____New

County: _____ Segment Number: _____

Admin Complete Date: _____

Agency Receiving SPIF:

_____ Texas Historical Commission _____ U.S. Fish and Wildlife

_____ Texas Parks and Wildlife Department _____ U.S. Army Corps of Engineers

This form applies to TPDES permit applications only. (Instructions, Page 36)

The SPIF must be completed as a separate document. The TCEQ will mail a copy of the SPIF to each agency as required by the TCEQ agreement with EPA. If any of the items are not completely addressed or further information is needed, you will be contacted to provide the information before the permit is issued. Each item must be completely addressed.

Do not refer to a response of any item in the permit application form. Each attachment must be provided with this form separately from the administrative report of the application. The application will not be declared administratively complete without this form being completed in its entirety including all attachments.

The following applies to all applications:

1. Permittee Name: Oxy Vinyls, LP

2. Permit No.: WQ0000002000 EPA ID No.: TX0006335

3. Address of the project (location description that includes street/highway, city/vicinity, and county): 4403 Pasadena Freeway, Pasadena, TX, Harris County

4. Provide the name, address, phone and fax number, and email address of an individual that can be contacted to answer specific questions about the property.

   Full Name (First and Last): Zachary Oliver

   Organization Name: Oxy Vinyls, LP Mailing Address: P.O. Box 849

   City: Pasadena State: TX Zip Code: 77501

   Phone No: 281-884-4047 Fax No: Click to enter text. Email: zachary_oliver@oxy.com

5. List the county in which the facility is located: Harris

6. If the property is publicly owned and the owner is different than the permittee/applicant, please list the owner of the property: Click to enter text.

7. Provide a description of the effluent discharge route. The discharge route must follow the flow of effluent from the point of discharge to the nearest major watercourse (from the point of discharge to a classified segment as defined in 30 TAC Chapter 307). If known, please identify the classified segment number: Effluent from the treatment facility flows through a Parshall flume and then a 24-

inch diameter pipe. The effluent flows to a junction box where it connects with a 30-inch diameter pipe that discharges directly into the Houston Ship Channel Tidal in Segment No. 1006 of the San Jacinto River Basin.

8. Please provide a separate 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report.) Attachment: **SPIF Figure 1 and Figure 2**
9. Provide original photographs of any structures 50 years or older on the property. Attachment: Click to enter text.
10. Does your project involve any of the following? Check all that apply.

    ☐ Proposed access roads, utility lines, construction easements

    ☐ Visual effects that could damage or detract from a historic property's integrity

    ☐ Vibration effects during construction or as a result of project design

    ☐ Additional phases of development that are planned for the future

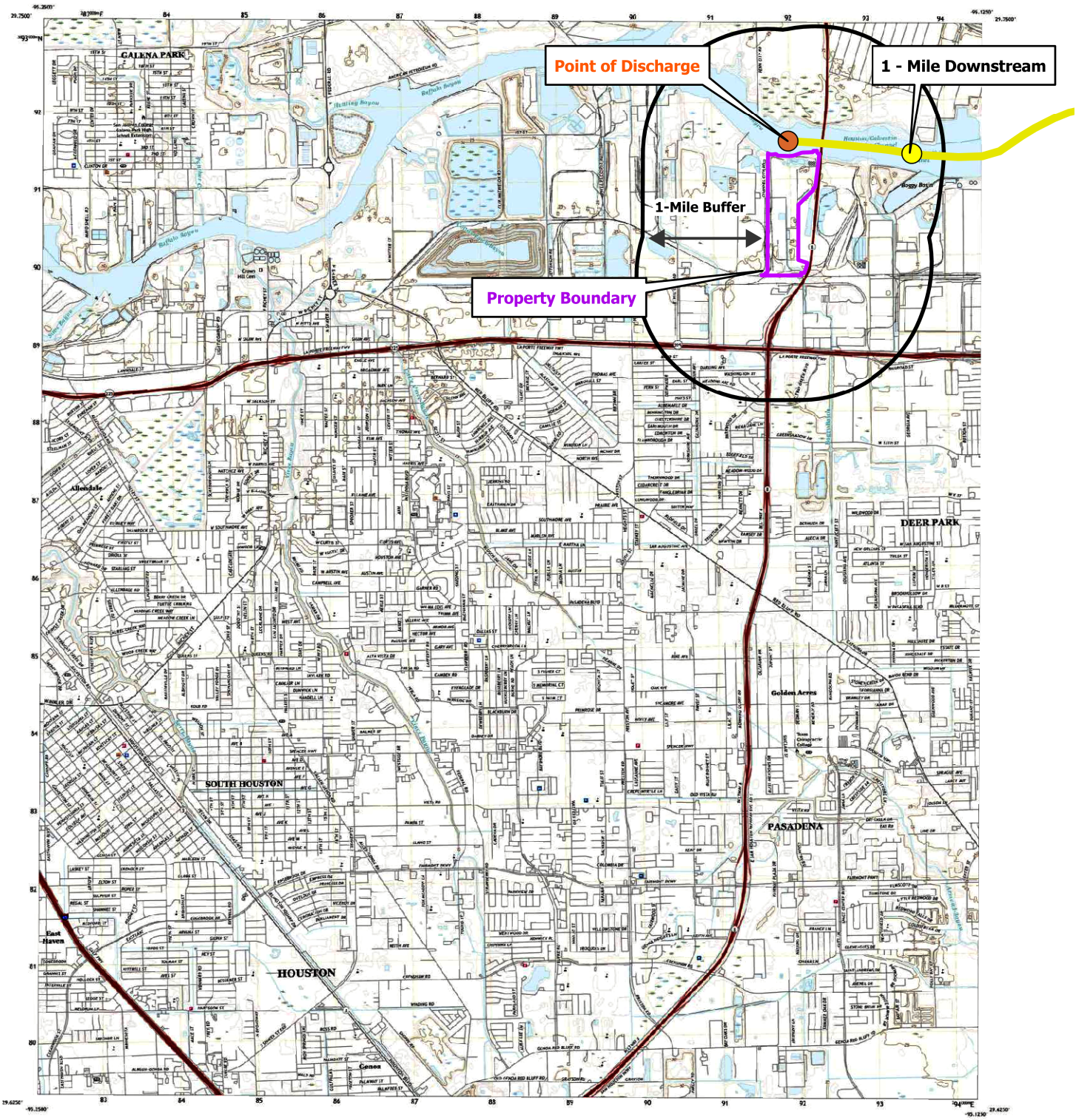
    ☐ Sealing caves, fractures, sinkholes, other karst features

    ☐ Disturbance of vegetation or wetlands

11. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features): Click to enter text.
12. Describe existing disturbances, vegetation, and land use: The property has been developed as an industrial chemical plant.

THE FOLLOWING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR AMENDMENTS TO TPDES PERMITS

13. List construction dates of all buildings and structures on the property: Click to enter text.
14. Provide a brief history of the property, and name of the architect/builder, if known: Click to enter text.



N

0 3,000 6,000

Feet

Oxy Vinyls PVC - Pasadena		
SPIF Figure 1 - USGS Map		
April 2024	Proj. No: 12600-00	Attachment: 1

N

0 3,000 6,000

Feet

Oxy Vinyls PVC - Pasadena		
SPIF Figure 2 - USGS Map		
April 2024	Proj. No: 12600-00	Attachment: 2