Administrative 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. Application materials

Portada de Paquete Administrativo

Este archivo contiene los siguientes documentos:

1. Resumen en lenguaje sencillo (PLS, por sus siglas en inglés) de la actividad propuesta
   - Inglés
   - Idioma alternativo (español)
2. Primer aviso (NORI, por sus siglas en inglés)
   - Inglés
   - Idioma alternativo (español)
3. Solicitud original

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUMMARY OF APPLICATION IN PLAIN LANGUAGE FOR TPDES OR TLAP PERMIT APPLICATIONS

Summary of Application (in plain language) Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS Enter 'INDUSTRIAL' or 'DOMESTIC' here WASTEWATER/STORMWATER

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 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

The Dow Chemical Company-TDCC (CN6000356976) operates Sabine River Operations (RN100542711), a multi-tenant facility that includes chemical manufacturing, electrical power and steam generation, and waste incineration facilities. The facility is located at 3055 Farm-to-Market Road 1006, in Orange, Orange County, Texas 77630. TDCC requests renewal of TPDES Permit No. WQ00004750000, which authorizes the discharge of storm water runoff and previously monitored effluents via internal Outfalls 101, 201, and 301 on a continuous and flow-variable basis via Outfall 001.

Discharges from the facility are expected to contain Carbonaceous/Biochemical Oxygen Demand, Total Organic Carbon, Total Suspended Solids, Ammonia Nitrogen, Total Kjeldahl Nitrogen, Total Residual Chlorine, and potentially trace amounts of Oil & Grease, Free, Amendable, and Total Cyanide, Total Chromium, Total Copper, Total Nickel, and Total Zinc. Additional potential pollutants in the outfall discharge are included in the Industrial Wastewater Application Technical Report, Worksheet 2.0. Outfall 001 discharges include stormwater runoff and previously monitored effluents via internal Outfalls 101 and 201; Internal Outfall 101 discharges include process wastewater, recirculated non-contacted cooling water, domestic wastewater (previously monitored at Internal Outfall 301), utility wastewaters (potentially includes, but not limited to the following: boiler blowdown, cooling tower blowdown and overflow, steam condensate, potable water (including freeze bleeds and line flushes), clarifier effluent, non-contact cooling water, air conditioning condensate, water softener demineralizer regeneration effluent, emergency firewater washdown, raw water, and miscellaneous clean wastewater streams), and stormwater; Internal Outfall 201 discharges at a daily average flow rate not to exceed 20.0 MGD and includes process wastewater, utility wastewater as previously described for Outfall 101, domestic wastewater (previously monitored at Internal Outfall 301), non-contact cooling water, and storm water are treated by the following: (1) Internal Outfall 301 - Domestic wastewater undergoes solids removal and anaerobic biodegradation, and the effluent is chlorinated and temporarily held in a contact sump, prior to being pumped and discharged into the cooling water reservoir system via monitored Outfall 301. Generated sludge is periodically removed from the Digestor and is transported off-site using an approved sludge hauler for disposal in a municipal landfill. (2)

Internal Outfall 101 - Oil & grease recovery (e.g., API separators, oil decant sumps, etc.) and floating solids removal (e.g., pellet separators, hydrasieves, etc.) equipment is provided at several locations within the various plant production areas and within the recirculated cooling water system. Wastewater associated with the freshwater clarifier blowdown and cooling tower blowdown all undergo solids settling in an isolated section of the cooling water reservoir system prior to entering the recirculated cooling water system and/or the wastewater treatment surface impoundment system. The closed-loop cooling water and reservoir storage system (CCWS) has been designed to recirculate the non-contact cooling water and reuse the aforementioned wastewater. Most storm water is also directed to wood-lined ditch conveyance systems and returned to the reservoirs. Raw water that is purchased from the Sabine River Authority can be used as additional make-up water in the CCWS. Discharge from the recirculated cooling water and reservoir system is done on an intermittent basis via monitored Outfall 101. (3) Internal Outfall 201 - Upstream of Outfall 201, the wastewater treatment processes include: oil & grease recovery, floating solids recovery, and neutralization, followed by treatment in a series of surface impoundments. Some of the specific area production unit's wastewater treatment and collection systems and equipment include an Acid Gas Treating Blowdown separator, tar box and replacement, quench settler, dissolved air flotation unit, API separators, storm water collection tanks, surge tanks, and stream stripper system, caustic scrubber, water collection/surge tanks and sumps, emergency spill diversion/collection tanks, pellet collector hydrasieves, neutralization sumps, and an oil recovery Decant tank. Neutralization of wastewater streams within the process areas is typically done using either sodium hydroxide or sulfuric acid depending on the wastewater's pH. The wastewater treatment surface impoundments include three anaerobic/anoxic biological treatment impoundments followed by four facultative/aerobic biological treatment impoundments. The terms anaerobic, anoxic, facultative, and aerobic are used in a general sense to help describe the desired bacterial population present within each impoundment. A 40% sodium nitrate solution is added on an as-needed basis to the anaerobic/anoxic ponds to supplement the existing nitrate source. Nitrate serves as an oxygen source for the anoxic biological reaction and increases organic removal efficiency of the system and reduces the organic load to the downstream aerobic biological treatment units. Pure oxygen and/or a hydrogen peroxide solution are added on an as-needed basis to the facultative/aerobic ponds. These oxygen sources supplement the oxygen produced from algae growth in the ponds. Oxygen is needed for aerobic biological growth, which is necessary for degradation of BOD and control of the aerobic microorganism population. Nutrients, typically in the form of ammonium hydroxide or solid urea (Nitrogen sources) and Phosphoric Acid (Phosphorus source), are added on an as-needed basis throughout the system to maintain proper Carbon-Nitrogen-Phosphorus balances necessary to sustain the microorganism population. Adjustment of pH within the treatment system is done on an as-needed basis, typically using either Sodium Hydroxide or Hydrochloric Acid. A continuous pH monitoring and control system using CO2 is installed at the Outfall 201 discharge location. Cationic polymers are used on an as-needed basis to help control algae growth and aid in solids settling. An anti-foam solution is injected at the Outfall discharge on an as-needed basis. (4) Outfall 001 - The wastewater discharges from internal Outfalls 101 and 201 combine and are discharged via Outfall 001 directly into the Sabine River Tidal in Segment No. 0501 of the Sabine River Basin.

PLANTILLA EN ESPAÑOL PARA SOLICITUDES NUEVAS/RENOVACIONES/ENMIENDAS DE TPDES o TLAP

AGUAS RESIDUALES Introduzca 'INDUSTRIALES' o 'DOMÉSTICAS' aquí **/AGUAS PLUVIALES**

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 requerido por 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 una representación ejecutiva fedérale de la solicitud de permiso.

The Dow Chemical Company-TDCC (CN6000356976) opera Sabine River Operations RN100542711, un instalación de múltiples inquilinos que incluye fabricación de productos químicos, generación de energía eléctrica y vapor, e instalaciones de incineración de desechos . La instalación está ubicada en 3055 Farm-to-Market Road 1006, en Orange, Condado de Orange, Texas 77630. TDCC solicita la renovación del Permiso TPDES No. WQ00004750000, que autoriza la descarga de la escorrentía de aguas pluviales y efluentes previamente monitoreados a través de los emisarios internos 101, 201 y 301 de forma continua y de flujo variable a través del emisario 001.

Se espera que las descargas de la instalación contengan Demanda de oxígeno carbonoso/bioquímico, carbono orgánico total, sólidos suspendidos totales, nitrógeno amoniacal, nitrógeno Kjeldahl total, cloro residual total y cantidades potencialmente trazas de aceite y grasa, cianuro libre, modificable y total, cromo total, cobre total, níquel total y zinc total. Las descargas del emisario 001 incluyen la escorrentía de aguas pluviales y los efluentes previamente monitoreados a través de los emisarios internos 101 y 201; Las descargas del emisario interno 101 incluyen aguas residuales de proceso, agua de enfriamiento recirculada sin contacto, aguas residuales domésticas (previamente monitoreadas en el desagüe interno 301), aguas residuales de servicios públicos (potencialmente incluye, entre otros, los siguientes: purga de calderas, purga y desbordamiento de torres de enfriamiento, condensado de vapor, agua potable (incluidas purgas por congelación y enjuagues de líneas), efluente del clarificador, agua de enfriamiento sin contacto, condensado de aire acondicionado, regeneración del desmineralizador del ablandador de agua efluentes, lavado de emergencia de aguas contra incendios, agua cruda y diversas corrientes de aguas residuales limpias) y aguas pluviales; Las descargas del emisario interno 201 incluyen aguas residuales de proceso, aguas residuales de servicios públicos como se describió anteriormente para el desagüe 101, aguas residuales domésticas (previamente monitoreadas en el desagüe interno 301), agua de enfriamiento sin contacto y aguas pluviales. está tratado por lo siguiente: (1) Desagüe interno 301 - Las aguas residuales domésticas se someten a la eliminación de sólidos y a la biodegradación anaeróbica, y el efluente se clora y se mantiene temporalmente en un sumidero de contacto, antes de ser bombeado y descargado en el sistema de depósito de agua de refrigeración a través del desagüe 301 monitoreado. Los lodos generados se retiran periódicamente del digestor y se transportan fuera del sitio utilizando un transportador de lodos aprobado para su eliminación en un vertedero municipal. (2) Emisario interno 101 - Recuperación de aceite y grasa (por ejemplo, separadores API, sumideros de decantación de aceite, etc.) y eliminación de sólidos flotantes (por ejemplo, separadores de pellets, Hidratantes, etc.) El equipo se proporciona en varias ubicaciones dentro de las diversas áreas de producción de la planta y dentro del sistema de agua de enfriamiento recirculada. Las aguas residuales asociadas con la purga del clarificador de agua dulce y la purga de la torre de enfriamiento se sedimentan en una sección aislada del sistema de depósito de agua de enfriamiento antes de ingresar al sistema

de agua de enfriamiento recirculada y / o al sistema de embalse de superficie de tratamiento de aguas residuales. El sistema de almacenamiento de agua de refrigeración y depósito de circuito cerrado (CCWS) ha sido diseñado para recircular el agua de refrigeración sin contacto y reutilizar el agua de refrigeración. aguas residuales antes mencionadas . La mayoría de las aguas pluviales también se dirigen a los sistemas de transporte de zanjas revestidas de madera y se devuelven a los embalses. El agua cruda que se compra a la Autoridad del Río Sabine se puede utilizar como agua de reposición adicional en el CCWS. La descarga del agua de refrigeración recirculada y del sistema de depósito se realiza de forma intermitente a través del emisario 101 supervisado. (3) Emisario interno 201 - Aguas arriba del emisario 201, los procesos de tratamiento de aguas residuales incluyen: recuperación de aceite y grasa, recuperación de sólidos flotantes y neutralización, seguido de tratamiento en una serie de embalses superficiales. Algunos de los específico Sistema de tratamiento y recolección de aguas residuales de la unidad de producción del área s y equipamiento incluyen un separador de purga de tratamiento de gas ácido, caja de alquitrán y reemplazo, sedimentador de enfriamiento, unidad de flotación de aire disuelto, separador API s , tanques de recolección de aguas pluviales, tanques de compensación y sistema de extracción de arroyos, depurador cáustico, tanques y sumideros de recolección de agua/compensación, tanque de desvío/recolección de derrames de emergencia s pelotilla coleccionista Hidratantes, sumideros de neutralización y un tanque de decantación de recuperación de petróleo. La neutralización de las corrientes de aguas residuales dentro de las áreas de proceso generalmente se realiza utilizando hidróxido de sodio o ácido sulfúrico, según el pH de las aguas residuales. Los embalses superficiales de tratamiento de aguas residuales incluyen tres embalses de tratamiento biológico anaeróbico/anóxico, seguidos de cuatro embalses de tratamiento biológico facultativo/aeróbico. Los términos anaeróbico, anóxico, facultativo y aeróbico se utilizan en un sentido general para ayudar a describir la población bacteriana deseada presente dentro de cada embalse. Se añade una solución de nitrato de sodio al 40% según sea necesario a los estanques anaeróbicos/anóxicos para complementar la fuente de nitrato existente. El nitrato sirve como fuente de oxígeno para la reacción biológica anóxica y aumenta la eficiencia de eliminación orgánica del sistema y reduce la carga orgánica a las unidades de tratamiento biológico aeróbico aguas abajo. Se añade oxígeno puro y/o una solución de peróxido de hidrógeno según sea necesario a los estanques facultativos/aeróbicos. Estas fuentes de oxígeno complementan el oxígeno producido por el crecimiento de algas en los estanques. El oxígeno es necesario para el crecimiento biológico aeróbico, que es necesario para la degradación de la DBO y el control de la población de microorganismos aeróbicos. Los nutrientes, generalmente en forma de hidróxido de amonio o urea sólida (fuentes de nitrógeno) y ácido fosfórico (fuente de fósforo), se agregan según sea necesario en todo el sistema para mantener los equilibrios adecuados de carbono-nitrógeno-fósforo necesarios para mantener la población de microorganismos. Ajuste del pH dentro de la tratamiento El sistema se realiza según sea necesario, generalmente utilizando hidróxido de sodio o ácido clorhídrico. En el lugar de descarga del emisario 201 se instala un sistema continuo de monitoreo y control del pH que utiliza CO2. Los polímeros catiónicos se utilizan según sea necesario para ayudar a controlar el crecimiento de algas y ayudar en la sedimentación de sólidos. Se inyecta una solución antiespumante en la descarga del emisario según sea necesario. (4) Desagüe 001 - Las descargas de aguas residuales de los emisarios internos 101 y 201 se combinan y se descargan a través del desagüe 001 directamente en la marea del río Sabine en el segmento No. 0501 de la cuenca del río Sabine.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

PERMIT NO. WQ0000475000

APPLICATION. The Dow Chemical Company, P.O. Box 1089, Orange, Texas 77631, which owns an organic and inorganic chemical manufacturing facility, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000475000 (EPA I.D. No. TX0006327) to authorize the discharge of stormwater runoff and previously monitored effluents via internal Outfalls 101 and 201 on a continuous and flow-variable basis via Outfall 001. The facility is located at 3055 Farm-to-Market Road 1006, near the city of Orange, in Orange County, Texas 77630. The discharge route is from the plant site directly to Sabine River Tidal. TCEQ received this application on May 21, 2025. The permit application will be available for viewing and copying at Orange Public Library, 220 North 5th Street, Orange, in Orange County, Texas, prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications. 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=-93.756944,30.056666&level=18

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.

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 The Dow Chemical Company at the address stated above or by calling Mr. Richard Kirschner, EH&S Delivery Manager, at 409-886-9511.

Issuance Date: June 17, 2025

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. WQ0000475000

SOLICITUD. The Dow Chemical Company, P.O. Box 1089, Orange, Texas 77631, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No. WQ0000475000 (EPA I.D. No. TX0006327) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de escorrentía de aguas pluviales y efluentes previamente monitoreados a través de los emisarios internos 101 y 201 de manera continua y con caudal variable a través del emisario 001. La planta está ubicada 3055 Farm-to-Market Road 1006, en el Condado de Orange, Texas 77630. La ruta de descarga es del sitio de la planta a directamente a Sabine River Tidal. La TCEQ recibió esta solicitud el 21 de mayo de 2025. La solicitud para el permiso estará disponible para leerla y copiarla en Orange Public Library, 220 North 5th Street, Orange, Texas antes de la fecha de publicación de este aviso en el periódico. 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=-93.756944,30.056666&level=18

AVISO DE IDIOMA ALTERNATIVO. El aviso de idioma alternativo en español está disponible en https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications.

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. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas correos siguientes (1) la lista de correo permanente para recibir los avisos del 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 envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

INFORMACIÓN DISPONIBLE EN LÍNEA. Para detalles sobre el estado de la solicitud, favor de visitar la Base de Datos Integrada de los Comisionados en www.tceq.texas.gov/goto/cid. Para buscar en la base de datos, utilizar el número de permiso para esta solicitud que aparece en la parte superior de este aviso.

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 del The Dow Chemical Company a la dirección indicada arriba o llamando a Sr. Richard Kirschner al 409-886-9511.

Fecha de emisión: 17 de junio de 2025

Leah Whallon

From: Kirschner, Rich (RA) <richard.kirschner@dow.com>
Sent: Saturday, June 7, 2025 8:08 AM
To: Leah Whallon
Cc: King, Trampus (TC)
Subject: RE: Application to Renew Permit No. WQ0000475000; The Dow Chemical Company; Dow Chemical Sabine River Operations
Attachments: TX_75MinuteTopo1_20250605_SRO_WQ0000475000.pdf; NOD_No.2_edit.pdf; IndustrialDischargeRenewalSpanishNORI.docx

Follow Up Flag: Follow up
Flag Status: Flagged

Ms. Whallon,

Attached are updated documents per your request.

If you should have any questions, please let me know.

Regards,

Richard A. Kirschner, Jr.

Rich Kirschner
EHS Delivery Manager
Sabine River Operations
Orange, TX

DOW Chemical Company
3055 Farm to Market Rd 1006, Orange, TX 77630 | **409.886.9511**
Mobile: 409.790-8165 | email: Richard.Kirschner@dow.com

From: Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>
Sent: Friday, May 30, 2025 10:51 AM
To: Kirschner, Rich (RA) <richard.kirschner@dow.com>
Cc: King, Trampus (TC) <trampus.king@dow.com>

Subject: Application to Renew Permit No. WQ0000475000; The Dow Chemical Company; Dow Chemical Sabine River Operations

Good Morning,

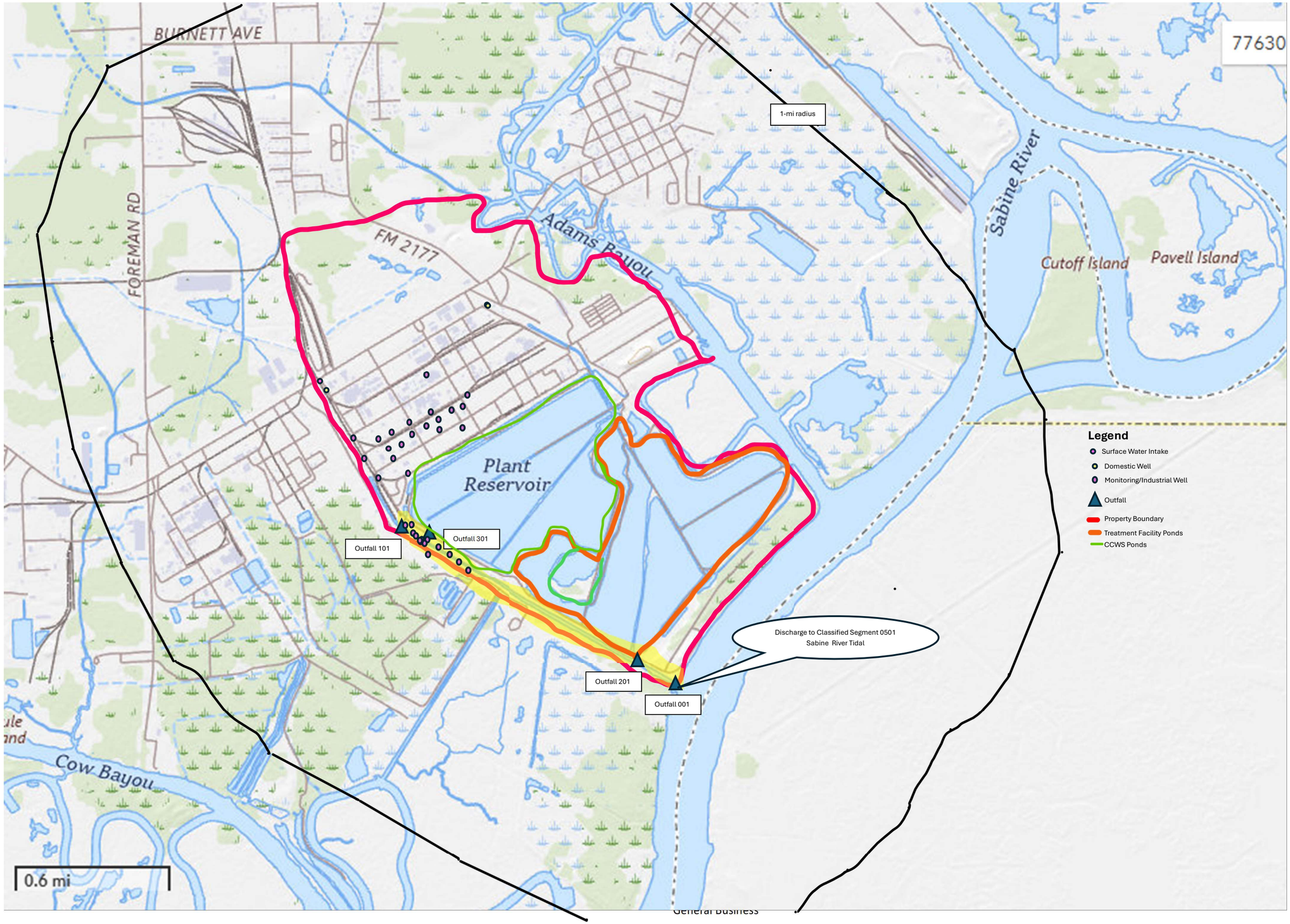
Please see the attached Notice of Deficiency letter dated May 30, 2025 requesting additional information needed to declare the application administratively complete. Please send the complete response by June 13, 2025.

Please let me know if you have any questions.

Thank you,

Leah Whallon
Texas Commission on Environmental Quality
Water Quality Division
512-239-0084
leah.whallon@tceq.texas.gov

How is our customer service? Fill out our online customer satisfaction survey at www.tceq.texas.gov/customersurvey



General Business

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. WQ000

SOLICITUD. *The Dow Chemical Company, P.O. Box 1089, Orange, Texas 77631*, ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No. WQ0000475000 (EPA I.D. No. TX0006327) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas en un volumen que no sobrepasa un flujo promedio diario de *16 MGD* galones por día. La planta está ubicada *3055 Farm-to-Market Road 1006,* en el Condado de *Orange,* Texas *77630*. La ruta de descarga es del sitio de la planta a directamente a *Sabine River Tidal.* La TCEQ recibió esta solicitud el *21 de mayo de 2025*. La solicitud para el permiso estará disponible para leerla y copiarla en *Orange Public Library, 220 North 5th Street, Orange, Texas* antes de la fecha de publicación de este aviso en el periódico. 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=-93.756944,30.056666&level=18

AVISO DE IDIOMA ALTERNATIVO. El aviso de idioma alternativo en español está disponible en https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications.

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. Además, puede pedir que la TCEQ ponga su nombre en una o más de las listas correos siguientes (1) la lista de correo permanente para recibir los avisos del 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 envía por correo su pedido a la Oficina del Secretario Principal de la TCEQ.

INFORMACIÓN DISPONIBLE EN LÍNEA. Para detalles sobre el estado de la solicitud, favor de visitar la Base de Datos Integrada de los Comisionados en www.tceq.texas.gov/goto/cid. Para buscar en la base de datos, utilizar el número de permiso para esta solicitud que aparece en la parte superior de este aviso.

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 del *The Dow Chemical Company* a la dirección indicada arriba o llamando a *Mr. Richard Kirschner* al *409-886-9511.*

Fecha de emisión: *[Date notice issued]*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 21, 2025

Re: Confirmation of Submission of the Renewal with changes for Industrial Wastewater Authorization.

Dear Applicant:

This is an acknowledgement that you have successfully completed Renewal with changes for the Industrial Wastewater authorization.

ER Account Number: ER021420
Application Reference Number: 786786
Authorization Number: WQ0000475000
Site Name: Performance Materials
Regulated Entity: RN100542711 - Dow Chemical Sabine River Operations
Customer(s): CN600356976 - The Dow Chemical Company

Please be aware that TCEQ staff may contact your designated contact for any additional information.

If you have any questions, you may contact the Applications Review and Processing Team by email at WQ-ARPTeam@tceq.texas.gov or by telephone at (512) 239-4671.

Sincerely,
Applications Review and Processing Team
Water Quality Division

Texas Commission on Environmental Quality

Update Domestic or Industrial Individual Permit

WQ0000475000

Site Information (Regulated Entity)

What is the name of the site to be authorized?	PERFORMANCE MATERIALS
Does the site have a physical address?	Yes
Physical Address	
Number and Street	3055 FM 1006
City	ORANGE
State	TX
ZIP	77630
County	ORANGE
Latitude (N) (##.######)	30.056666
Longitude (W) (-###.######)	-93.756944
Primary SIC Code	2869
Secondary SIC Code	2819,2821
Primary NAICS Code	325199
Secondary NAICS Code	
Regulated Entity Site Information	
What is the Regulated Entity's Number (RN)?	RN100542711
What is the name of the Regulated Entity (RE)?	DOW CHEMICAL SABINE RIVER OPERATIONS
Does the RE site have a physical address?	Yes
Physical Address	
Number and Street	3055 FM 1006
City	ORANGE
State	TX
ZIP	77630
County	ORANGE
Latitude (N) (##.######)	30.056111
Longitude (W) (-###.######)	-93.753888
Facility NAICS Code	
What is the primary business of this entity?	Ethylene Copolymer Manufacturing

The Dow-Customer (Applicant) Information (Owner)

How is this applicant associated with this site?	Owner
What is the applicant's Customer Number (CN)?	CN600356976

Type of Customer	Corporation
Full legal name of the applicant:	
Legal Name	The Dow Chemical Company
Texas SOS Filing Number	1216206
Federal Tax ID	381285128
State Franchise Tax ID	13812851288
State Sales Tax ID	
Local Tax ID	
DUNS Number	84970516
Number of Employees	251-500
Independently Owned and Operated?	
I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas.	Yes
Responsible Authority Contact	
Organization Name	The Dow Chemical Company
Prefix	
First	Cara
Middle	Leigh
Last	Wright
Suffix	
Credentials	
Title	Senior Responsible Care Director
Responsible Authority Mailing Address	
Enter new address or copy one from list:	RE Physical Address
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	PO BOX 1089
Routing (such as Mail Code, Dept., or Attn:)	
City	ORANGE
State	TX
ZIP	77631
Phone (###-###-####)	4098866442
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	CLWright@Dow.com

Billing Contact

Responsible contact for receiving billing statements:

Select the permittee that is responsible for payment of the annual fee.	CN600356976, The Dow Chemical Company
Organization Name	Sabine River Operations
Prefix	MR
First	RICHARD
Middle	A
Last	KIRSCHNER
Suffix	JR
Credentials	
Title	
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	PO BOX 1089
Routing (such as Mail Code, Dept., or Attn:)	
City	ORANGE
State	TX
ZIP	77631
Phone (###-###-####)	4098869511
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	Richard.Kirschner@Dow.com

Application Contact

Person TCEQ should contact for questions about this application:

Same as another contact?	Billing Contact
Organization Name	Sabine River Operations
Prefix	MR
First	RICHARD
Middle	A
Last	KIRSCHNER
Suffix	JR
Credentials	
Title	EH&S Delivery Manager
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	PO BOX 1089

Routing (such as Mail Code, Dept., or Attn:)	
City	ORANGE
State	TX
ZIP	77631
Phone (###-###-####)	4098869511
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	Richard.Kirschner@Dow.com

Technical Contact

Person TCEQ should contact for questions about this application:

Same as another contact?	Application Contact
Organization Name	Sabine River Operations
Prefix	MR
First	RICHARD
Middle	A
Last	KIRSCHNER
Suffix	JR
Credentials	
Title	EH&S Delivery Manager
Enter new address or copy one from list:	

Mailing Address

Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	PO BOX 1089
Routing (such as Mail Code, Dept., or Attn:)	
City	ORANGE
State	TX
ZIP	77631
Phone (###-###-####)	4098869511
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	Richard.Kirschner@Dow.com

DMR Contact

Person responsible for submitting Discharge Monitoring Report Forms:

Same as another contact?	CN600356976, The Dow Chemical

	Company
Organization Name	The Dow Chemical Company
Prefix	MS
First	Cara
Middle	Leigh
Last	Wright
Suffix	
Credentials	
Title	Senior Responsible Care Director
Enter new address or copy one from list:	
Mailing Address:	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	PO BOX 1089
Routing (such as Mail Code, Dept., or Attn:)	
City	ORANGE
State	TX
ZIP	77631
Phone (###-###-####)	4098866442
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	CLWright@Dow.com

Section 1# Permit Contact

Permit Contact#: 1

Person TCEQ should contact throughout the permit term.

1) Same as another contact?	Application Contact
2) Organization Name	Sabine River Operations
3) Prefix	MR
4) First	RICHARD
5) Middle	A
6) Last	KIRSCHNER
7) Suffix	JR
8) Credentials	
9) Title	EH&S Delivery Manager
Mailing Address	
10) Enter new address or copy one from list	
11) Address Type	Domestic
11.1) Mailing Address (include Suite or Bldg. here, if applicable)	PO BOX 1089

11.2) Routing (such as Mail Code, Dept., or Attn:)	
11.3) City	ORANGE
11.4) State	TX
11.5) ZIP	77631
12) Phone (###-###-####)	4098869511
13) Extension	
14) Alternate Phone (###-###-####)	
15) Fax (###-###-####)	
16) E-mail	Richard.Kirschner@Dow.com

Owner Information

Owner of Treatment Facility	
1) Prefix	
2) First and Last Name	The Dow Chemical Company
3) Organization Name	Sabine River Operations
4) Mailing Address	P.O. Box 1089
5) City	Orange
6) State	TX
7) Zip Code	77631
8) Phone (###-###-####)	4098866442
9) Extension	
10) Email	Richard.Kirschner@Dow.com
11) What is ownership of the treatment facility?	Private
Owner of Land (where treatment facility is or will be)	
12) Prefix	
13) First and Last Name	The Dow Chemical Company
14) Organization Name	The Dow Chemical Company
15) Mailing Address	P.O. Box 1089
16) City	Orange
17) State	TX
18) Zip Code	77631
19) Phone (###-###-####)	4098866442
20) Extension	
21) Email	Richard.Kirschner@Dow.com
22) Is the landowner the same person as the facility owner or co-applicant?	Yes

General Information Renewal-Amendment

1) Current authorization expiration date:	11/16/2025

2) Current Facility operational status:	Active
3) Is the facility located on or does the treated effluent cross American Indian Land?	No
4) What is the application type that you are seeking?	Renewal with changes
4.1) Describe the proposed changes:	Remove any reference to Performance Materials.
5) Current Authorization type:	Industrial Wastewater
5.1) What is your EPA facility classification?	Major
5.1.1) Select the applicable fee	Renewal - $2,015
6) What is the classification for your authorization?	TPDES
6.1) What is the EPA Identification Number?	TX0006327
6.2) Is the wastewater treatment facility location in the existing permit accurate?	Yes
6.3) Are the point(s) of discharge and the discharge route(s) in the existing permit correct?	Yes
6.4) City nearest the outfall(s):	Orange
6.5) County where the outfalls are located:	ORANGE
6.6) Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?	No
6.7) Is the daily average discharge at your facility of 5 MGD or more?	No
7) Did any person formerly employed by the TCEQ represent your company and get paid for service regarding this application?	No

Public Notice Information

Individual Publishing the Notices

1) Prefix	MR
2) First and Last Name	Richard Kirschner
3) Credential	
4) Title	EH&S Delivery Manager
5) Organization Name	The Dow Chemical Company
6) Mailing Address	PO BOX 1089
7) Address Line 2	
8) City	ORANGE
9) State	TX
10) Zip Code	77631
11) Phone (###-###-####)	4098869511
12) Extension	
13) Fax (###-###-####)	
14) Email	Richard.Kirschner@Dow.com

Contact person to be listed in the Notices

15) Prefix	MR
16) First and Last Name	Richard Kirschner
17) Credential	
18) Title	EH&S Delivery Manager
19) Organization Name	The Dow Chemical Company
20) Phone (###-###-####)	4098869511
21) Fax (###-###-####)	
22) Email	Richard.Kirschner@Dow.com
Bilingual Notice Requirements	
23) 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
23.1) Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?	Yes
23.2) Do the students at these schools attend a bilingual education program at another location?	No
23.3) 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
23.4) Which language is required by the bilingual program?	Spanish

Section 1# Public Viewing Information

County#: 1

1) County	ORANGE
2) Public building name	Orange Public Library
3) Location within the building	Permit References
4) Physical Address of Building	220 N. 5th Street
5) City	Orange
6) Contact Name	
7) Phone (###-###-####)	4098831086
8) Extension	
9) Is the location open to the public?	Yes

Plain Language

1) Plain Language	
[File Properties]	
File Name	LANG_TCEQ-20972_Sum_of-App(PLS).pdf
Hash	65E13E06D27CBDB1E8D51F3FBAF141C3A5BE2A55F9A61A37E791E69E496803DC
MIME-Type	application/pdf

Supplemental Permit Information Form

1) Supplemental Permit Information Form (SPIF)

[File Properties]

File Name	SPIF_TCEQ-20971_SPIF.pdf
Hash	A38F3E53FD02A82371E3F9E53455685FA0534371F802C6DAB9D22FA721D89A30
MIME-Type	application/pdf

[File Properties]

File Name	SPIF_SPIF_Att1-USGS_TOPO.pdf
Hash	B767CAC8E27EB628C5DB1CFDED29457871B2563E1864BAB0FAD9A1CE4F449BF7
MIME-Type	application/pdf

[File Properties]

File Name	SPIF_SPIF_Att2-Overview.pdf
Hash	565A9A382BE62CD25499BD22F6AA359F4D845DF7916E6066C72B8E6970A03F59
MIME-Type	application/pdf

Industrial Attachments

1) Attach an 8.5"x11", reproduced portion of the most current and original USGS Topographic Quadrangle Map(s) that meets the 1:24,000 scale.

[File Properties]

File Name	MAP_AR_Item11b-USGS_Topo.pdf
Hash	4A6B08403018F1C16E4D0F35B30641182D8300BBE90A3DE9F67EAC722B0B9F1A
MIME-Type	application/pdf

2) I confirm that all required sections of Technical Report 1.0 are complete and will be included in the Technical Attachment.	Yes
2.1) I confirm that Worksheet 2.0 (Pollutant Analyses Requirements) is complete and included in the Technical Attachment.	Yes
2.2) I confirm that Worksheet 4.0 (Receiving Waters) is complete and included in the Technical Attachment.	Yes
2.3) Are you planning to include Worksheet 4.1 (Waterbody Physical Characteristics) in the Technical Attachment?	No
2.4) Are you planning to include Worksheet 6.0 (Industrial Waste Contribution) in the Technical Attachment?	No
2.5) Are you planning to include Worksheet 7.0 (Stormwater Discharges Associated with Industrial Activities) to the Technical Attachment?	Yes
2.6) Are you planning to include Worksheet 8.0 (Aquaculture) in the Technical Attachment?	No

2.7) Are you planning to include Worksheet 9.0 (Class V Injection Well Inventory/Authorization) in the Technical Attachment?	No
2.8) Are you planning to include Worksheet 10.0 (Quarries in the John Graves Scenic Riverway) in the Technical Attachment?	No
2.9) Are you planning to include Worksheet 11.0 (Cooling Water System Information) in the Technical Attachment?	No
2.10) Are you planning to include Worksheet 11.1 (Impingement Mortality) in the Technical Attachment?	No
2.11) Are you planning to include Worksheet 11.2 (Source Water Biological Data) in the Technical Attachment?	No
2.12) Are you planning to include Worksheet 11.3 (Entrainment) in the Technical Attachment?	No

2.13) Technical Attachment

[File Properties]

File Name	TECH_TCEQ-10055_TechRpt1.0.pdf
Hash	0A694261E21B71A93EF45F7E4FFDCC766480DAD5BCED46FA060ED14DB68FDA29
MIME-Type	application/pdf

[File Properties]

File Name	TECH_TR_Item1a-c-SiteInfo.pdf
Hash	3A4D6F6F87B6A2AEB17BAE81C8476030BCD3B64CE5F482A5DFB89D75D83777DA
MIME-Type	application/pdf

[File Properties]

File Name	TECH_TR_INVISTA_Desc.pdf
Hash	616B1F8C92723FBC4F95D722B8DD6F9D3A300A4C2D467D67198E884F11749400
MIME-Type	application/pdf

[File Properties]

File Name	TECH_TCEQ-10053_TechRptAppWorkSheets.pdf
Hash	F6748564D05438598D824516AAA6E2B0763986FDA1DC0D1D88E7A2239AFB039A
MIME-Type	application/pdf

[File Properties]

File Name	TECH_TR_Item2a-TreatmentSystem.pdf
Hash	BE831128F7F63CA562586E95FDA3A4A331B39663FA771FD5B93A0E5D34F16BD3
MIME-Type	application/pdf

3) Flow Diagram

[File Properties]

File Name	FLDIA_TR_INVISTA-Fig1.pdf
Hash	27A2E2AEDAF4272E4D0E45CA405713229CAFF6386E7CE48CFF0AE19D2E4F19E8
MIME-Type	application/pdf

4) Site Drawing

[File Properties]

File Name SITEDR_TR-Item1.d.-SiteMaps.pdf

Hash F02A19EA012A455B4896E468BAF1A06B2609B2C73E77CE995CB17E1A1C5A12D5

MIME-Type application/pdf

[File Properties]

File Name SITEDR_TR-Item1.f.-FloodMaps.pdf

Hash CC81AC0AE8714630D18A2FE7A9CACD9311070396BF2DFCABB127C6D1A971FCA5

MIME-Type application/pdf

5) Design Calculations

[File Properties]

File Name DES_CAL_TR_Item3a-ImpoundmentsTable.pdf

Hash 0BFC7A264E59F0EDF410D106F96DA71A79FA2559D790FF6E6C9E6E650E8F2003

MIME-Type application/pdf

[File Properties]

File Name DES_CAL_TR_WS-1_Item3-WW_Flows.pdf

Hash 853BCA8F851423732D2B368D22265CC72698D77502FD08D920593F98AE215F65

MIME-Type application/pdf

[File Properties]

File Name DES_CAL_TR_Item4-OutfallContrib.pdf

Hash F9EC613506484B9855AF3CCD0B5C0BE7922611F9E4F16F7F39A4353EF9526E2A

MIME-Type application/pdf

6) Solids Management Plan

7) Water Balance

[File Properties]

File Name WB_TR_Item2b-WaterBalance.pdf

Hash 9F330ADB1AFAFAB78DF4A6ECB8E8AFC8000D269A5BA43943901F02856A581E3D

MIME-Type application/pdf

[File Properties]

File Name WB_TR_Item4-OutfallContrib.pdf

Hash F9EC613506484B9855AF3CCD0B5C0BE7922611F9E4F16F7F39A4353EF9526E2A

MIME-Type application/pdf

8) Other Attachments

[File Properties]

File Name	OTHER_TCEQ-10400_CoreDataForm.pdf
Hash	156F0F817059D57401820A06322820870271EB3817822A744297D096B8BCDA69
MIME-Type	application/pdf

[File Properties]

File Name	OTHER_Table_of_Contents.pdf
Hash	4BCCEC9EDE7CF456ACB43DE630BE35F8C176E1AC5D8D55A2017B48E2423B3881
MIME-Type	application/pdf

[File Properties]

File Name	OTHER_NetDMR_SubscriberAgreement-CLW.pdf
Hash	7091698853E16C82BBF6B1ECCE47949A9FB0690EE1F82346B79F890F033C5899
MIME-Type	application/pdf

[File Properties]

File Name	OTHER_Checklist.pdf
Hash	86CBFF5727028D48E27CF980C7126AD1B17D7DA7E9443DE0DBDFC8FB555B466A
MIME-Type	application/pdf

[File Properties]

File Name	OTHER_TCEQ-10411_AdminRpt1.0.pdf
Hash	B131690732A52D637B6125795EC64D2B5DF7E66938612723A756FB2E421EF01B
MIME-Type	application/pdf

[File Properties]

File Name	OTHER_TR_Item7b-DomesticSewage.pdf
Hash	6EDCCE7801155A1E5CCA8E03FD4280E7EAE4E8B0D631CA9534F92CE06FC952BC
MIME-Type	application/pdf

[File Properties]

File Name	OTHER_TR_Item6-StormWaterMgt.pdf
Hash	B3AABBA9AE68C000A54C32D41F6372542B44FBD4B28BED651F213DA62F548675
MIME-Type	application/pdf

[File Properties]

File Name	OTHER_TR_WS-2_Item1c-LabInfo.pdf
Hash	F4EE38DE499B799AEE09D987B09F9FADC22313423DA4ECF2759B31659F9DB66F
MIME-Type	application/pdf

[File Properties]

File Name	OTHER_TR_Item5b-ChemInv.pdf

Hash	1716312E153BFE342C97FE7FBB7F3F86E0514FD392F8234A1CF433C4C1350871
MIME-Type	application/pdf

Certification

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

I 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.

1. I am Cara L Wright, the owner of the STEERS account ER113963.
2. I have the authority to sign this data on behalf of the applicant named above.
3. I have personally examined the foregoing and am familiar with its content and the content of any attachments, and based upon my personal knowledge and/or inquiry of any individual responsible for information contained herein, that this information is true, accurate, and complete.
4. I further certify that I have not violated any term in my TCEQ STEERS participation agreement and that I have no reason to believe that the confidentiality or use of my password has been compromised at any time.
5. I understand that use of my password constitutes an electronic signature legally equivalent to my written signature.
6. I also understand that the attestations of fact contained herein pertain to the implementation, oversight and enforcement of a state and/or federal environmental program and must be true and complete to the best of my knowledge.
7. I am aware that criminal penalties may be imposed for statements or omissions that I know or have reason to believe are untrue or misleading.
8. I am knowingly and intentionally signing Update Domestic or Industrial Individual Permit WQ0000475000.
9. My signature indicates that I am in agreement with the information on this form, and authorize its submittal to the TCEQ.

OWNER Signature: Cara L Wright OWNER

Customer Number:	CN600356976
Legal Name:	The Dow Chemical Company
Account Number:	ER113963
Signature IP Address:	170.85.98.246
Signature Date:	2025-05-16
Signature Hash:	BB20EBC8D46AE2C377BFEFDF0F76B624CD1A5001D8C13ACA1C7906773FFA9F93
Form Hash Code at time of Signature:	4D015BFE6C1477EE6995EA210703210BD586FE78CCD1BB6CC74FC9086FFFB50C

Fee Payment

Fee Amount:	$2000.00
Check Date:	The application fee was paid on 2025-05-19
Check Number:	The check number is 2200718403

Submission

Reference Number:	The application reference number is 786786
Submitted by:	The application was submitted by ER021420/ Richard A Kirschner JR
Submitted Timestamp:	The application was submitted on 2025-05-21 at 05:08:39 CDT
Submitted From:	The application was submitted from IP address 170.85.99.27
Confirmation Number:	The confirmation number is 654378
Steers Version:	The STEERS version is 6.91
Permit Number:	The permit number is WQ0000475000

Additional Information

Application Creator: This account was created by Richard A Kirschner JR

The Dow Chemical Company

Sabine River Operations

Orange, Texas

TPDES WQ0000475000 Renewal Application

May 2025

Application Contents

Attachments	Cross Reference
1 – USGS Topo Maps	AR-Item11b & SPIF-Att1
2 – Facility/Outfall Overview	SPIF-Att2
3 – Site Info, Waste Processes, & Raw Materials	TR_Item1a-c & INVISTA_desc
4 – Site Maps	TR_Item1d
5 – FEMA Flood Maps	TR_Item1f
6 – Treatment System	TR_Item2a
7 – Water Balance	TR_Item2b

Attachments	Cross Reference
8 – Impoundments Table	TR_Item3a
9 – Outfall Contributions & Characterizations	TR_Item4
10 – Water Treatment Chemical Inventory and SDS	TR_Item5b
11 – Storm Water Management	TR_Item6
12 – Domestic Sewage Management	TR_Item7b
13 – Wastewater Flows	TR_WS-1_Item3
14 – Contract Laboratory Information	TR_WS-2_Item1c

Reference Key

SPIF – Supplemental Permit Information Form

PLS – Plain Language Summary

TR – Technical Report

WS - Worksheet

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION CHECKLIST

Complete and submit this checklist with the industrial wastewater permit application.

APPLICANT NAME: The Dow Chemical Company

PERMIT NUMBER (If new, leave blank): WQ00 00475000

Indicate if each of the following items is included in your application.

	Y	N		Y	N
Administrative Report 1.0	☒	☐	Worksheet 8.0	☐	☒
Administrative Report 1.1	☐	☒	Worksheet 9.0	☐	☒
SPIF	☒	☐	Worksheet 10.0	☐	☒
Core Data Form	☒	☐	Worksheet 11.0	☐	☒
Summary of Application (PLS)	☒	☐	Worksheet 11.1	☐	☒
Public Involvement Plan Form	☐	☒	Worksheet 11.2	☐	☒
Technical Report 1.0	☒	☐	Worksheet 11.3	☐	☒
Worksheet 1.0	☒	☐	Original USGS Map	☒	☐
Worksheet 2.0	☒	☐	Affected Landowners Map	☐	☒
Worksheet 3.0	☐	☒	Landowner Disk or Labels	☐	☒
Worksheet 3.1	☐	☒	Flow Diagram	☒	☐
Worksheet 3.2	☐	☒	Site Drawing	☒	☐
Worksheet 3.3	☐	☒	Original Photographs	☐	☒
Worksheet 4.0	☒	☐	Design Calculations	☐	☒
Worksheet 4.1	☐	☒	Solids Management Plan	☐	☒
Worksheet 5.0	☒	☐	Water Balance	☒	☐
Worksheet 6.0	☐	☒			
Worksheet 7.0	☒	☐			

For TCEQ Use Only

Segment Number _____County _____
Expiration Date _____Region _____
Permit Number _____

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.0

This report is required for all applications for TPDES permits and TLAPs, except applications for oil and gas extraction operations subject to 40 CFR Part 435. Contact the Applications Review and Processing Team at 512-239-4671 with any questions about completing this report.

Applications for oil and gas extraction operations subject to 40 CFR Part 435 must use Oil and Gas Exploration and Production Administrative Report (TCEQ Form-20893 and 20893-inst[1]).

Item 1. Application Information and Fees (Instructions, Page 26)

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

Applicant Name: The Dow Chemical Company

Permit No.: WQ00000475000

EPA ID No.: TX00006327

Expiration Date: November 20, 2025

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

☒ Industrial Wastewater (wastewater and stormwater)

☐ Industrial Stormwater (stormwater only)

☐ Reverse Osmosis Water Treatment (reverse osmosis water treatment wastewaters 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 ☐ TPDES with TLAP component

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: N/A

For TCEQ Use Only

Segment Number _____County _____
Expiration Date _____Region _____
Permit Number _____

[1] https://www.tceq.texas.gov/publications/search_forms.html

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 [2]	☐ $2,050	☒ $2,015	☐ $450

h. Payment Information

Mailed

Check or money order No.: 2200718403

Check or money order amt.: $2,015

Named printed on check or money order: TCEQ CASHIERS OFFICE MC 214

Epay

Voucher number: N/A

Copy of voucher attachment: N/A

Item 2. Applicant Information (Instructions, Pages 26)

a. Customer Number, if applicant is an existing customer: CN600356976

Note: Locate the customer number using the TCEQ's Central Registry Customer Search[3].

b. Legal name of the entity (applicant) applying for this permit: The Dow Chemical Company

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.)

Prefix: Ms Full Name (Last/First Name): Wright/Cara

Title: Senior Responsible Care Director Credential: N/A

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.

---

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

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

Item 3. Co-applicant Information (Instructions, Page 27)

☒ 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.)

Prefix: Click to enter text. Full Name (Last/First 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.

Item 4. Core Data Form (Instructions, Pages 27)

a. Complete and attach one Core Data Form (TCEQ Form 10400) for each customer (applicant and co-applicant(s)). If the customer type selected on the Core Data Form is Individual, complete Attachment 1 of the Administrative Report. Attachment: TCEQ Core Data Form, TCEQ-10400 (11/22)

Item 5. Application Contact Information (Instructions, Page 27)

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

a. ☒ Administrative Contact . ☒ Technical Contact

Prefix: Mr. Full Name (Last/First Name): Kirschner/Richard

Title: EH&S Delivery Manager Credential: N/A

Organization Name: The Dow Chemical Company

Mailing Address: P.O. Box 1089 City/State/Zip: Orange/TX/77631

Phone No: 409-886-9511 Email: Richard.Kirschner@Dow.com

b. ☒ Administrative Contact ☒ Technical Contact

Prefix: Mr. Full Name (Last/First Name): King/Trampus

Title: EEO OSBL Technical Advisor Credential: N/A

Organization Name: The Dow Chemical Company

Mailing Address: P.O. Box 1089 City/State/Zip: Orange/TX/77631

Phone No: 409-779-1608 Email: Trampus.King@Dow.com

Attachment: N/A

Item 6. Permit Contact Information (Instructions, Page 28)

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

a. Prefix: Mr. Full Name (Last/First Name): Kirschner/Richard
Title: EH&S Delivery Manager Credential: N/A
Organization Name: The Dow Chemical Company
Mailing Address: P.O. Box 1089 City/State/Zip: Orange/TX/77631
Phone No: 409-886-9511 Email: Richard.Kirschner@Dow.com

b. Prefix: Mr. Full Name (Last/First Name): King/Trampus
Title: EEO OSBL Technical Advisor Credential: N/A
Organization Name: The Dow Chemical Company
Mailing Address: P.O. Box 1089 City/State/Zip: Orange/TX/77631
Phone No: 409-779-1608 Email: Trampus.King@Dow.com

Attachment: N/A

Item 7. Billing Contact Information (Instructions, Page 28)

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.

Prefix: Mr. Full Name (Last/First Name): Kirschner/Richard
Title: EH&S Delivery Manager Credential: N/A
Organization Name: The Dow Chemical Company
Mailing Address: P.O. Box 1089 City/State/Zip: Orange/TX/77631
Phone No: 409-886-9511 Email: Richard.Kirschner@Dow.com

Item 8. DMR/MER Contact Information (Instructions, Page 28)

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.

Prefix: Ms. Full Name (Last/First Name): Wright/Cara
Title: Senior Responsible Care Director Credential: N/A
Organization Name: The Dow Chemical Company
Mailing Address: P.O. Box 1089 City/State/Zip: Orange/TX/77631
Phone No: 409-886-6442 Email: CLWright@Dow.com

Item 9. Notice Information (Instructions, Pages 28)

a. Individual Publishing the Notices

Prefix: Mr. Full Name (Last/First Name): Kirschner/Richard

Title: EH&S Delivery Manager Credential: N/A

Organization Name: The Dow Chemical Company

Mailing Address: P.O. Box 1089 City/State/Zip: Orange/TX/77631

Phone No: 409-886-9511 Email: Richard.Kirschner@Dow.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: Richard.Kirschner@Dow.com

☐ Fax: Click to enter text.

☐ Regular Mail (USPS)

Mailing Address: Click to enter text.

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

c. Contact in the Notice

Prefix: Mr. Full Name (Last/First Name): Kirschner/Richard

Title: EH&S Delivery Manager Credential: N/A

Organization Name: The Dow Chemical Company

Phone No: 409-886-9511 Email: Richard.Kirschner@Dow.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: Orange Public Library Location within the building: Permit Reference Section

Physical Address of Building: 220 N. 5th Street

City: Orange County: Orange

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.

Call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine if an alternative language notice(s) is 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. Summary of Application in Plain Language Template - Complete and attach the Summary of Application in Plain Language Template (TCEQ Form 20972), also known as the plain language summary or PLS. Attachment: TCEQ-20972 Plain Language Template (11/08/24)

g. Complete and attach one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment. Attachment: N/A - Renewal Only

Item 10. Regulated Entity and Permitted Site Information (Instructions Page 29)

a. TCEQ issued Regulated Entity Number (RN), if available: RN100542711

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 (name known by the community where located): Sabine River Operations

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:

Prefix: N/A Full Name (Last/First Name): N/A

or Organization Name: The Dow Chemical Company

Mailing Address: P.O. Box 1089 City/State/Zip: Orange/TX/77631

Phone No: 409-886-6442 Email: N/A

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

f. Owner of land where treatment facility is or will be: The Dow Chemical Company

Prefix: N/A Full Name (Last/First Name): N/A

or Organization Name: Click to enter text.

Mailing Address: P.O. Box 1089 City/State/Zip: Orange/TX/77631

Phone No: 409-886-6442 Email: N/A

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: N/A

g. Owner of effluent TLAP disposal site (if applicable): N/A

Prefix: Click to enter text. Full Name (Last/First Name): Click to enter text.

or Organization Name: Click to enter text.

Mailing Address: Click to enter text. City/State/Zip: Click to enter text.

Phone 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: N/A

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

Prefix: N/A Full Name (Last/First Name): N/A

or Organization Name: N/A

Mailing Address: Click to enter text. City/State/Zip: Click to enter text.

Phone 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: N/A

Item 11. TDPES Discharge/TLAP Disposal Information (Instructions, Page 31)

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: USGS Topo Map

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: N/A

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: N/A

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: N/A

f. City nearest the outfall(s): Orange

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

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: N/A

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: The Sabine River flows into the Sabine Lake approximately five miles downstream of the Outfall discharge location. It is approximately 31.5 total miles from the outfall discharge location to the Gulf of America. Downstream counties include Jefferson County in Texas and Cameron County in Louisiana.

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

☐ Yes No or New Permit ☐ N/A

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

j. City nearest the disposal site: N/A

k. County in which the disposal site is located: N/A

l. For TLAPs, describe how effluent is/will be routed from the treatment facility to the disposal site: N/A

m. For TLAPs, identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: N/A

Item 12. Miscellaneous Information (Instructions, Page 33)

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: N/A

b. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If yes, provide the following information:

Account no.: N/A

Total amount due: N/A

c. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If yes, provide the following information:

Enforcement order no.: N/A

Amount due: N/A

Item 13. Signature Page (Instructions, Page 33)

Permit No: WQ0000475000

Applicant Name: The Dow Chemical Company

Certification: I, Cara Leigh Wright, 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): Cara Leigh Wright

Signatory title: Senior Responsible Care Director

Signature: Cara Leigh Wright (Use blue ink) Date: 5/14/25

Subscribed and Sworn to before me by the said Cara Leigh Wright

on this 14th day of May, 20 25.

My commission expires on the 31st day of January, 20 26.

Jody Love
Notary Public

Orange
County, Texas

SEAL
JODY LOVE
NOTARY PUBLIC
ID# 7126433
State of Texas
Comm. Exp. 01-31-2026

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

INDUSTRIAL WASTEWATER PERMIT APPLICATION ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

Item 1. Affected Landowner Information (Instructions, Page 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: N/A - Renewal Only

b. ☐ that the landowners list has also been provided as mailing labels in electronic format (Avery 5160).

c. Check this box to confirm a separate list with the landowners' names and mailing addresses cross-referenced to the landowner's map has been provided.Provide the source of the landowners' names and mailing addresses: N/A

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): N/A - Renewal Only

Item 2. Original Photographs (Instructions, Page 37)

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: N/A - Renewal Only

INDUSTRIAL WASTEWATER PERMIT APPLICATION

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

This form applies to TPDES permit applications only. Complete and attach the Supplemental Permit information Form (SPIF) (TCEQ Form 20971).

Attachment: TCEQ-20971_SPIF (08/31/2023)

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 600356976		RN 100542711

SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy) 5/14/2025

☐ 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:*

The Dow Chemical Company

7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number *(if applicable)*
0001216206	13812851288	38-1285128	11-706-3457

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 ☐ Other:
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant

15. Mailing Address:

P. O. Box 1089

City	Orange	State	TX	ZIP	77631	ZIP + 4	1089

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*
	N/A

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(409) 886-6442		( ) -

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.)*

The Dow Chemical Company - Sabine River Operations

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	3055 FM 1006							
	City	Orange	**State**	TX	**ZIP**	77630	**ZIP + 4**	8045
24. County	Orange							

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:			**28. Longitude (W) In Decimal:**		
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)
2869	2821	325211	325110

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

Ethylene Copolymer Manufacturer

34. Mailing Address:	P. O. Box 1089							
	City	Orange	**State**	TX	**ZIP**	77630	**ZIP + 4**	1089
35. E-Mail Address:	N/A							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(409) 886-6442		( ) -

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
			OC007J	HW# 50230, SWR# 30019
☐ Municipal Solid Waste	☒ New Source Review Air	☐ OSSF	☒ Petroleum Storage Tank	☒ PWS
	See attached list		40744 - Inactive	1810114
☐ Sludge	☒ Storm Water	☒ Title V Air	☐ Tires	☐ Used Oil
	TXR05FG09	See attached list		
☐ Voluntary Cleanup	☒ Wastewater	☐ Wastewater Agriculture	☒ Water Rights	☒ Other:
	WQ0000475000		05-4664	P00193

SECTION IV: Preparer Information

40. Name:	Richard A. Kirschner, Jr.	41. Title:	EH&S Delivery Manager

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(409) 886-9511		( ) -	Richard.Kirschner@Dow.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:	The Dow Chemical Company	Job Title:	Senior Responsible Care Director
Name *(In Print)*:	Cara Leigh Wright	Phone:	(409) 886- 6442
Signature:	Cara Leigh Wright	Date:	5/14/25

Sabine River Operations Air Permits

ID Type	ID Number	ID Type	ID Number	ID Type	ID Number
NSR PERMIT	914	TITLE V PERMIT	2055	EPA PERMIT	PSDTX929
NSR PERMIT	20204	TITLE V PERMIT	2331	PERMIT	AMOC242
NSR PERMIT	9176	TITLE V PERMIT	1882		
NSR PERMIT	21236	TITLE V PERMIT	1899		
NSR PERMIT	176181	TITLE V PERMIT	2074		
NSR PERMIT	9629	TITLE V PERMIT	1901		
NSR PERMIT	40496	TITLE V PERMIT	1895		
NSR PERMIT	17157				
NSR PERMIT	49076				

Sabine River Operations
Permit By Rule Registrations

ID Number	ID Number	ID Number	ID Number
147752	56781	73779	146154
177932	101137	76955	1423C
914A	104095	104097	2116
16327	104059	104088	5745
22977	141153	104052	32733
56055	173772	133737	47671
73921	1423	111631	70647
139683	1423B	154818	71338
133043	2490	149267	53324
143037	23646	172656	104083
144453	26158	176891	104054
150109	26325	176400	104050
160038	36046	1423A	104057
173784	42054	26410	114657
2004	72443	75999	136327
41263	82031	71829	162942
71054	104091	53572	166181
137218	132769	104086	165390
133042	51941	104090	146064
163827	134473	132093	142133
160920	162989	136608	160082
177265	144517	136803	10447
72030	146956	168189	28148
12967	7021	142135	91404
37488	11434	148316	104048
44528	170810	146933	145657
46790	70650	149728	

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUMMARY OF APPLICATION IN PLAIN LANGUAGE FOR TPDES OR TLAP PERMIT APPLICATIONS

Summary of Application (in plain language) Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS Enter 'INDUSTRIAL' or 'DOMESTIC' here WASTEWATER/STORMWATER

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 TAC Chapter 39. The information provided in this summary may change during the technical review of the application and is not a federal enforceable representation of the permit application.

The Dow Chemical Company-TDCC (CN6000356976) operates Sabine River Operations (RN100542711), a multi-tenant facility that includes chemical manufacturing, electrical power and steam generation, and waste incineration facilities. The facility is located at 3055 Farm-to-Market Road 1006, in Orange, Orange County, Texas 77630. TDCC requests renewal of TPDES Permit No. WQ00004750000, which authorizes the discharge of storm water runoff and previously monitored effluents via internal Outfalls 101, 201, and 301 on a continuous and flow-variable basis via Outfall 001.

Discharges from the facility are expected to contain Carbonaceous/Biochemical Oxygen Demand, Total Organic Carbon, Total Suspended Solids, Ammonia Nitrogen, Total Kjeldahl Nitrogen, Total Residual Chlorine, and potentially trace amounts of Oil & Grease, Free, Amendable, and Total Cyanide, Total Chromium, Total Copper, Total Nickel, and Total Zinc. Additional potential pollutants in the outfall discharge are included in the Industrial Wastewater Application Technical Report, Worksheet 2.0. Outfall 001 discharges include stormwater runoff and previously monitored effluents via internal Outfalls 101 and 201; Internal Outfall 101 discharges include process wastewater, recirculated non-contacted cooling water, domestic wastewater (previously monitored at Internal Outfall 301), utility wastewaters (potentially includes, but not limited to the following: boiler blowdown, cooling tower blowdown and overflow, steam condensate, potable water (including freeze bleeds and line flushes), clarifier effluent, non-contact cooling water, air conditioning condensate, water softener demineralizer regeneration effluent, emergency firewater washdown, raw water, and miscellaneous clean wastewater streams), and stormwater; Internal Outfall 201 discharges at a daily average flow rate not to exceed 20.0 MGD and includes process wastewater, utility wastewater as previously described for Outfall 101, domestic wastewater (previously monitored at Internal Outfall 301), non-contact cooling water, and storm water are treated by the following: (1) Internal Outfall 301 - Domestic wastewater undergoes solids removal and anaerobic biodegradation, and the effluent is chlorinated and temporarily held in a contact sump, prior to being pumped and discharged into the cooling water reservoir system via monitored Outfall 301. Generated sludge is periodically removed from the Digestor and is transported off-site using an approved sludge hauler for disposal in a municipal landfill. (2)

Internal Outfall 101 - Oil & grease recovery (e.g., API separators, oil decant sumps, etc.) and floating solids removal (e.g., pellet separators, hydrasieves, etc.) equipment is provided at several locations within the various plant production areas and within the recirculated cooling water system. Wastewater associated with the freshwater clarifier blowdown and cooling tower blowdown all undergo solids settling in an isolated section of the cooling water reservoir system prior to entering the recirculated cooling water system and/or the wastewater treatment surface impoundment system. The closed-loop cooling water and reservoir storage system (CCWS) has been designed to recirculate the non-contact cooling water and reuse the aforementioned wastewater. Most storm water is also directed to wood-lined ditch conveyance systems and returned to the reservoirs. Raw water that is purchased from the Sabine River Authority can be used as additional make-up water in the CCWS. Discharge from the recirculated cooling water and reservoir system is done on an intermittent basis via monitored Outfall 101. (3) Internal Outfall 201 - Upstream of Outfall 201, the wastewater treatment processes include: oil & grease recovery, floating solids recovery, and neutralization, followed by treatment in a series of surface impoundments. Some of the specific area production unit's wastewater treatment and collection systems and equipment include an Acid Gas Treating Blowdown separator, tar box and replacement, quench settler, dissolved air flotation unit, API separators, storm water collection tanks, surge tanks, and stream stripper system, caustic scrubber, water collection/surge tanks and sumps, emergency spill diversion/collection tanks, pellet collector hydrasieves, neutralization sumps, and an oil recovery Decant tank. Neutralization of wastewater streams within the process areas is typically done using either sodium hydroxide or sulfuric acid depending on the wastewater's pH. The wastewater treatment surface impoundments include three anaerobic/anoxic biological treatment impoundments followed by four facultative/aerobic biological treatment impoundments. The terms anaerobic, anoxic, facultative, and aerobic are used in a general sense to help describe the desired bacterial population present within each impoundment. A 40% sodium nitrate solution is added on an as-needed basis to the anaerobic/anoxic ponds to supplement the existing nitrate source. Nitrate serves as an oxygen source for the anoxic biological reaction and increases organic removal efficiency of the system and reduces the organic load to the downstream aerobic biological treatment units. Pure oxygen and/or a hydrogen peroxide solution are added on an as-needed basis to the facultative/aerobic ponds. These oxygen sources supplement the oxygen produced from algae growth in the ponds. Oxygen is needed for aerobic biological growth, which is necessary for degradation of BOD and control of the aerobic microorganism population. Nutrients, typically in the form of ammonium hydroxide or solid urea (Nitrogen sources) and Phosphoric Acid (Phosphorus source), are added on an as-needed basis throughout the system to maintain proper Carbon-Nitrogen-Phosphorus balances necessary to sustain the microorganism population. Adjustment of pH within the treatment system is done on an as-needed basis, typically using either Sodium Hydroxide or Hydrochloric Acid. A continuous pH monitoring and control system using CO2 is installed at the Outfall 201 discharge location. Cationic polymers are used on an as-needed basis to help control algae growth and aid in solids settling. An anti-foam solution is injected at the Outfall discharge on an as-needed basis. (4) Outfall 001 - The wastewater discharges from internal Outfalls 101 and 201 combine and are discharged via Outfall 001 directly into the Sabine River Tidal in Segment No. 0501 of the Sabine River Basin.

PLANTILLA EN ESPAÑOL PARA SOLICITUDES NUEVAS/RENOVACIONES/ENMIENDAS DE TPDES o TLAP

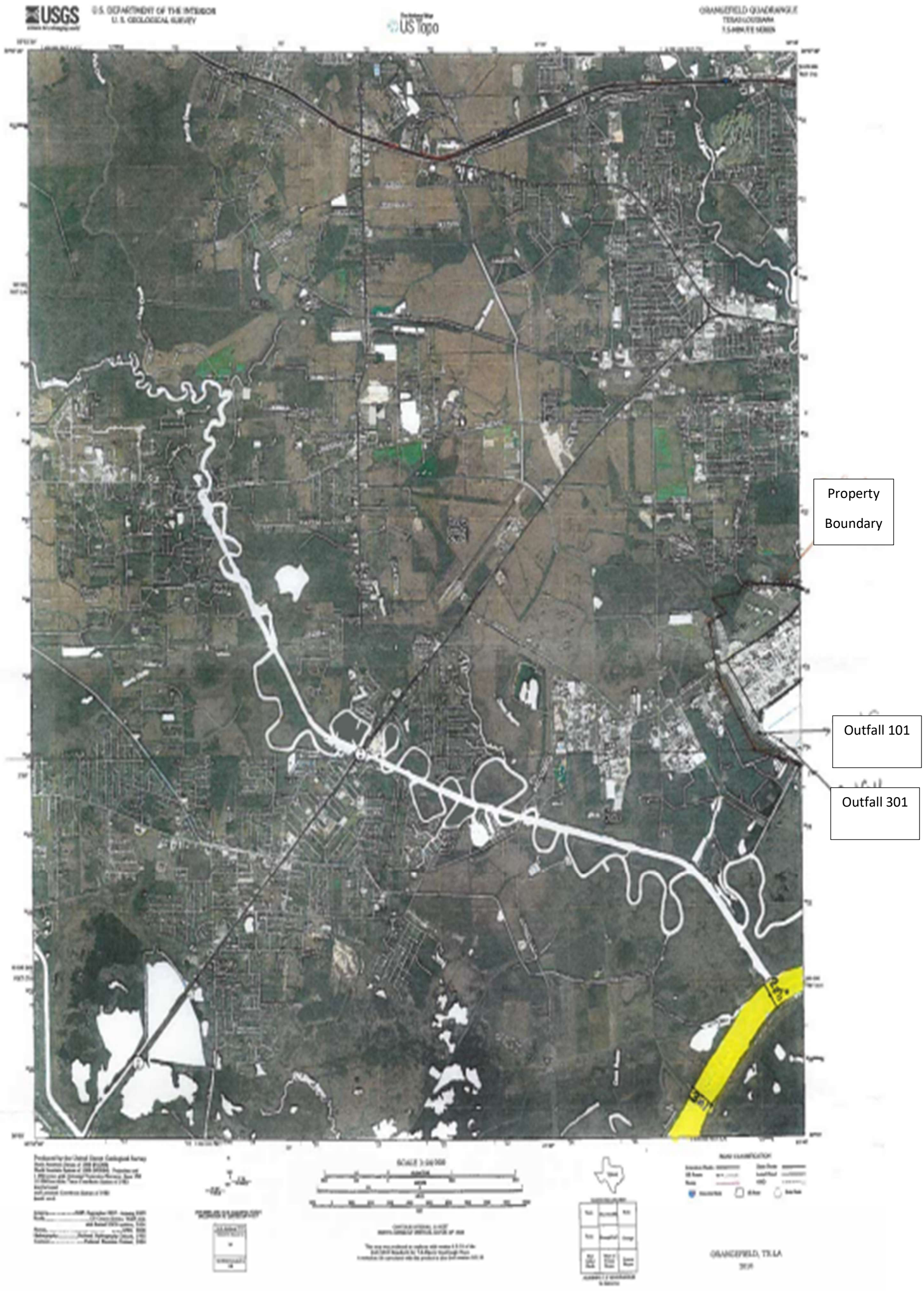
AGUAS RESIDUALES Introduzca 'INDUSTRIALES' o 'DOMÉSTICAS' aquí **/AGUAS PLUVIALES**

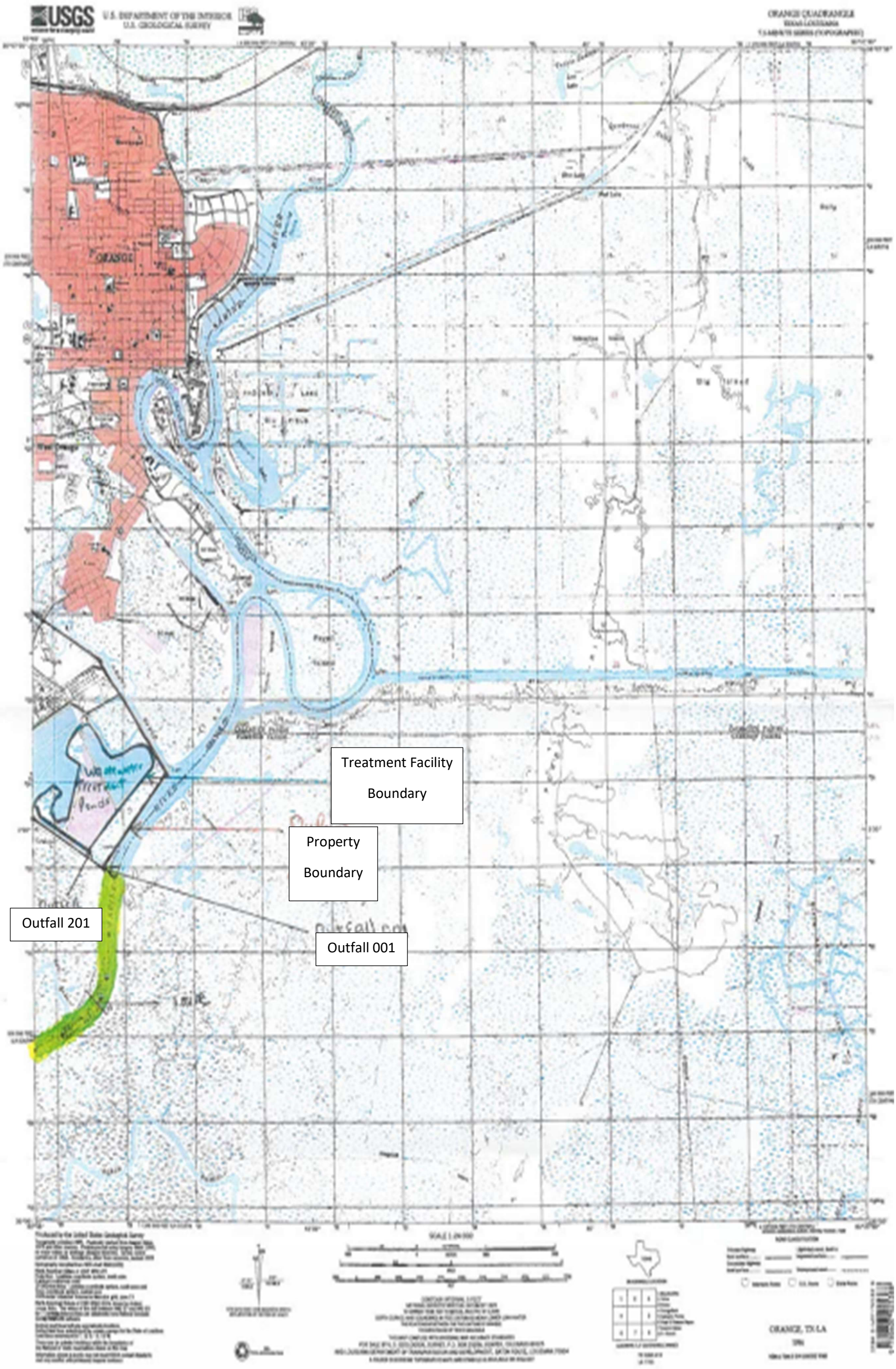
El siguiente resumen se proporciona para esta solicitud de permiso de calidad del agua pendiente que está siendo revisada por la Comisión de Calidad Ambiental de Texas según lo requerido por el Capítulo 39 del Código Administrativo de Texas 30. La información proporcionada en este resumen puede cambiar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

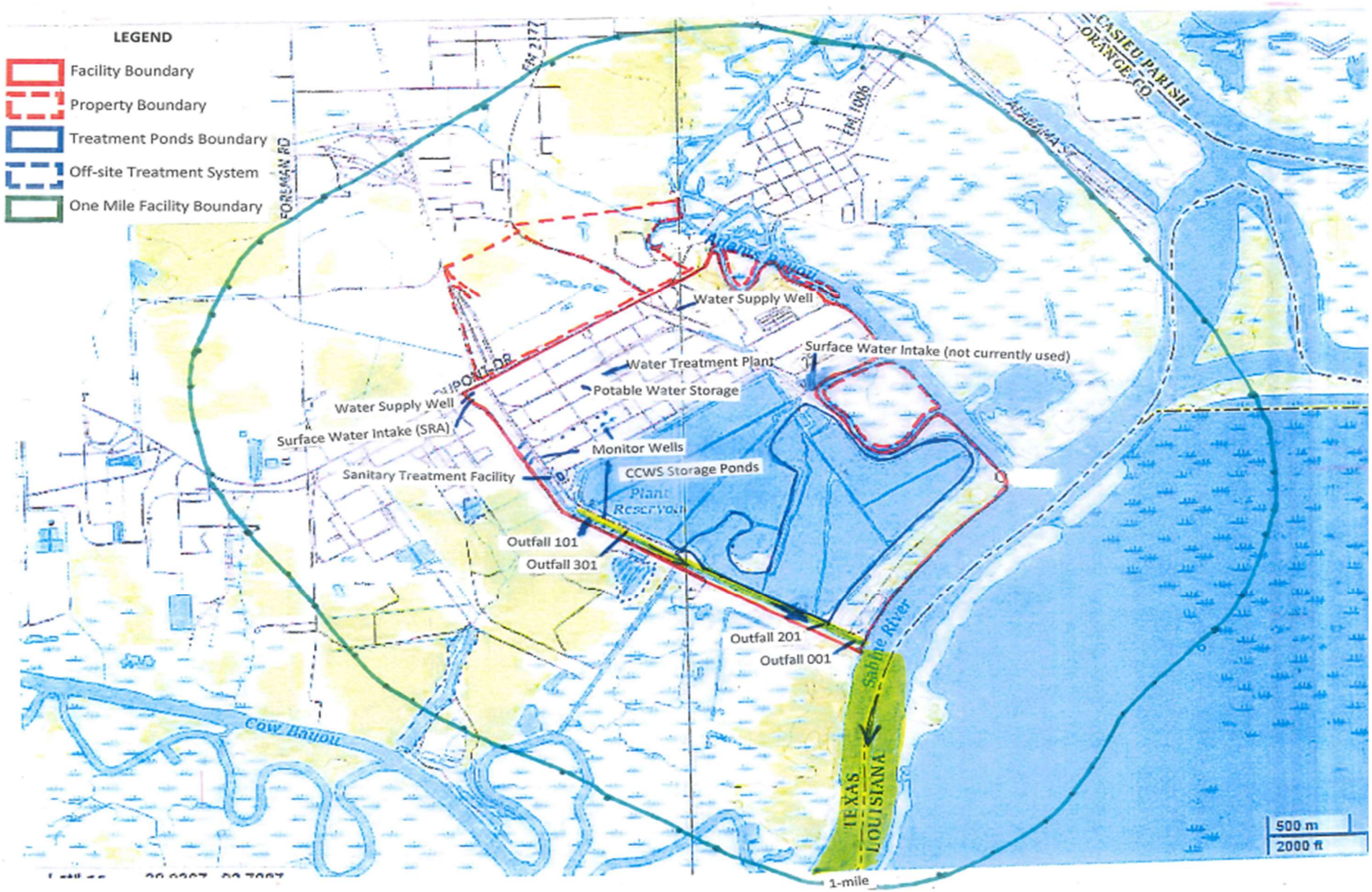
The Dow Chemical Company-TDCC (CN6000356976) opera Sabine River Operations RN100542711, un instalación de múltiples inquilinos que incluye fabricación de productos químicos, generación de energía eléctrica y vapor, e instalaciones de incineración de desechos . La instalación está ubicada en 3055 Farm-to-Market Road 1006, en Orange, Condado de Orange, Texas 77630. TDCC solicita la renovación del Permiso TPDES No. WQ00004750000, que autoriza la descarga de la escorrentía de aguas pluviales y efluentes previamente monitoreados a través de los emisarios internos 101, 201 y 301 de forma continua y de flujo variable a través del emisario 001.

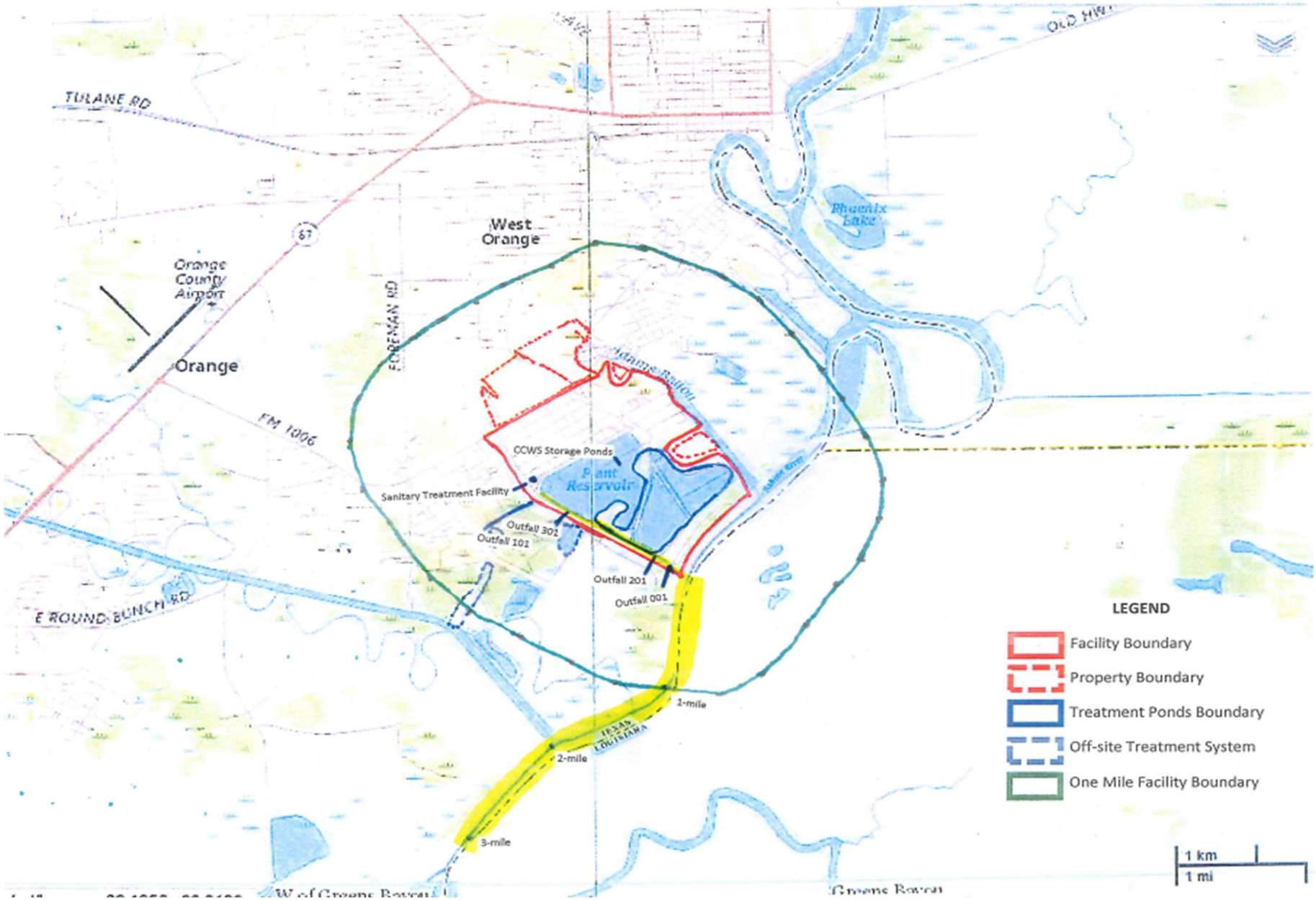
Se espera que las descargas de la instalación contengan Demanda de oxígeno carbonoso/bioquímico, carbono orgánico total, sólidos suspendidos totales, nitrógeno amoniacal, nitrógeno Kjeldahl total, cloro residual total y cantidades potencialmente trazas de aceite y grasa, cianuro libre, modificable y total, cromo total, cobre total, níquel total y zinc total. Las descargas del emisario 001 incluyen la escorrentía de aguas pluviales y los efluentes previamente monitoreados a través de los emisarios internos 101 y 201; Las descargas del emisario interno 101 incluyen aguas residuales de proceso, agua de enfriamiento recirculada sin contacto, aguas residuales domésticas (previamente monitoreadas en el desagüe interno 301), aguas residuales de servicios públicos (potencialmente incluye, entre otros, los siguientes: purga de calderas, purga y desbordamiento de torres de enfriamiento, condensado de vapor, agua potable (incluidas purgas por congelación y enjuagues de líneas), efluente del clarificador, agua de enfriamiento sin contacto, condensado de aire acondicionado, regeneración del desmineralizador del ablandador de agua efluentes, lavado de emergencia de aguas contra incendios, agua cruda y diversas corrientes de aguas residuales limpias) y aguas pluviales; Las descargas del emisario interno 201 incluyen aguas residuales de proceso, aguas residuales de servicios públicos como se describió anteriormente para el desagüe 101, aguas residuales domésticas (previamente monitoreadas en el desagüe interno 301), agua de enfriamiento sin contacto y aguas pluviales. está tratado por lo siguiente: (1) Desagüe interno 301 - Las aguas residuales domésticas se someten a la eliminación de sólidos y a la biodegradación anaeróbica, y el efluente se clora y se mantiene temporalmente en un sumidero de contacto, antes de ser bombeado y descargado en el sistema de depósito de agua de refrigeración a través del desagüe 301 monitoreado. Los lodos generados se retiran periódicamente del digestor y se transportan fuera del sitio utilizando un transportador de lodos aprobado para su eliminación en un vertedero municipal. (2) Emisario interno 101 - Recuperación de aceite y grasa (por ejemplo, separadores API, sumideros de decantación de aceite, etc.) y eliminación de sólidos flotantes (por ejemplo, separadores de pellets, Hidratantes, etc.) El equipo se proporciona en varias ubicaciones dentro de las diversas áreas de producción de la planta y dentro del sistema de agua de enfriamiento recirculada. Las aguas residuales asociadas con la purga del clarificador de agua dulce y la purga de la torre de enfriamiento se sedimentan en una sección aislada del sistema de depósito de agua de enfriamiento antes de ingresar al sistema

de agua de enfriamiento recirculada y / o al sistema de embalse de superficie de tratamiento de aguas residuales. El sistema de almacenamiento de agua de refrigeración y depósito de circuito cerrado (CCWS) ha sido diseñado para recircular el agua de refrigeración sin contacto y reutilizar el agua de refrigeración. aguas residuales antes mencionadas . La mayoría de las aguas pluviales también se dirigen a los sistemas de transporte de zanjas revestidas de madera y se devuelven a los embalses. El agua cruda que se compra a la Autoridad del Río Sabine se puede utilizar como agua de reposición adicional en el CCWS. La descarga del agua de refrigeración recirculada y del sistema de depósito se realiza de forma intermitente a través del emisario 101 supervisado. (3) Emisario interno 201 - Aguas arriba del emisario 201, los procesos de tratamiento de aguas residuales incluyen: recuperación de aceite y grasa, recuperación de sólidos flotantes y neutralización, seguido de tratamiento en una serie de embalses superficiales. Algunos de los específico Sistema de tratamiento y recolección de aguas residuales de la unidad de producción del área s y equipamiento incluyen un separador de purga de tratamiento de gas ácido, caja de alquitrán y reemplazo, sedimentador de enfriamiento, unidad de flotación de aire disuelto, separador API s , tanques de recolección de aguas pluviales, tanques de compensación y sistema de extracción de arroyos, depurador cáustico, tanques y sumideros de recolección de agua/compensación, tanque de desvío/recolección de derrames de emergencia s pelotilla coleccionista Hidratantes, sumideros de neutralización y un tanque de decantación de recuperación de petróleo. La neutralización de las corrientes de aguas residuales dentro de las áreas de proceso generalmente se realiza utilizando hidróxido de sodio o ácido sulfúrico, según el pH de las aguas residuales. Los embalses superficiales de tratamiento de aguas residuales incluyen tres embalses de tratamiento biológico anaeróbico/anóxico, seguidos de cuatro embalses de tratamiento biológico facultativo/aeróbico. Los términos anaeróbico, anóxico, facultativo y aeróbico se utilizan en un sentido general para ayudar a describir la población bacteriana deseada presente dentro de cada embalse. Se añade una solución de nitrato de sodio al 40% según sea necesario a los estanques anaeróbicos/anóxicos para complementar la fuente de nitrato existente. El nitrato sirve como fuente de oxígeno para la reacción biológica anóxica y aumenta la eficiencia de eliminación orgánica del sistema y reduce la carga orgánica a las unidades de tratamiento biológico aeróbico aguas abajo. Se añade oxígeno puro y/o una solución de peróxido de hidrógeno según sea necesario a los estanques facultativos/aeróbicos. Estas fuentes de oxígeno complementan el oxígeno producido por el crecimiento de algas en los estanques. El oxígeno es necesario para el crecimiento biológico aeróbico, que es necesario para la degradación de la DBO y el control de la población de microorganismos aeróbicos. Los nutrientes, generalmente en forma de hidróxido de amonio o urea sólida (fuentes de nitrógeno) y ácido fosfórico (fuente de fósforo), se agregan según sea necesario en todo el sistema para mantener los equilibrios adecuados de carbono-nitrógeno-fósforo necesarios para mantener la población de microorganismos. Ajuste del pH dentro de la tratamiento El sistema se realiza según sea necesario, generalmente utilizando hidróxido de sodio o ácido clorhídrico. En el lugar de descarga del emisario 201 se instala un sistema continuo de monitoreo y control del pH que utiliza CO2. Los polímeros catiónicos se utilizan según sea necesario para ayudar a controlar el crecimiento de algas y ayudar en la sedimentación de sólidos. Se inyecta una solución antiespumante en la descarga del emisario según sea necesario. (4) Desagüe 001 - Las descargas de aguas residuales de los emisarios internos 101 y 201 se combinan y se descargan a través del desagüe 001 directamente en la marea del río Sabine en el segmento No. 0501 de la cuenca del río Sabine.


Property Boundary
Outfall 101
Outfall 301


Treatment Facility Boundary
Property Boundary
Outfall 201
Outfall 001


LEGEND
Facility Boundary
Property Boundary
Treatment Ponds Boundary
Off-site Treatment System
One Mile Facility Boundary
FORMAN RD
FM 2177
FM 1006
CASIEU PARISH
ORANGE CO
Water Supply Well
Surface Water Intake (not currently used)
Water Treatment Plant
Potable Water Storage
Water Supply Well
Surface Water Intake (SRA)
Monitor Wells
Sanitary Treatment Facility
CCWS Storage Ponds
Plant Reservoir
Outfall 101
Outfall 301
Outfall 201
Outfall 001
Sabine River
Cow Bayou
TEXAS
LOUISIANA
500 m
2000 ft
1-mile


TULANE RD
West Orange
Orange County Airport
Orange
FM 1006
E ROUND BUNCH RD
FOREMAN RD
Adams Bayou
Phoenix Lake
CCWS Storage Ponds
Plant Reservoir
Sanitary Treatment Facility
Outfall 301
Outfall 101
Outfall 201
Outfall 001
1-mile
2-mile
3-mile
TEXAS
LOUISIANA
LEGEND
Facility Boundary
Property Boundary
Treatment Ponds Boundary
Off-site Treatment System
One Mile Facility Boundary
1 km
1 mi

Impoundment Information

Parameter	**Pond #**	**Pond #**	**Pond #**	**Pond #**
Use Designation: (T) (D) (C) or (E)	T-1	T-2	T-3	T-4
Associated Outfall Number	201	201	201	201
Liner Type (C) (I) (S) or (A)	I	I	I	I
Alt. Liner Attachment Reference	N/A	N/A	N/A	N/A
Leak Detection System, Y/N	N	N	N	N
Groundwater Monitoring Wells, Y/N	N	N	N	N
Groundwater Monitoring Data Attachment	N/A	N/A	N/A	N/A
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	Y	Y	Y	Y
Length (ft)	3,450	1,650	3,975	550
Width (ft)	375	675	750	250
Max Depth From Water Surface (ft), Not Including Freeboard	7.0	6.5	5.5	4.0
Freeboard (ft)	~2.0	~2.0	~1.5	~1.5
Surface Area (acres)	16.5	21.9	56.1	3.2
Storage Capacity (gallons)	35M	43M	82M	4M
40 CFR Part 257, Subpart D, Y/N	N	N	N	N
Date of Construction	1940's	1940's	1940's	1940's

Impoundment Information

Parameter	**Pond #**	**Pond #**	**Pond #**	**Pond #**
Use Designation: (T) (D) (C) or (E)	T-5	T-6	T-7	T-8
Associated Outfall Number	201	201	201	201
Liner Type (C) (I) (S) or (A)	I	I	I	I
Alt. Liner Attachment Reference	N/A	N/A	N/A	N/A
Leak Detection System, Y/N	N	N	N	N
Groundwater Monitoring Wells, Y/N	N	N	N	N
Groundwater Monitoring Data Attachment	N/A	N/A	N/A	N/A
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	Y	Y	Y	Y
Length (ft)	1,225	2,450	3,325	275
Width (ft)	1,550	825	850	150
Max Depth From Water Surface (ft), Not Including Freeboard	4.5	4.5	4.5	6.0
Freeboard (ft)	~1.5	~1.5	~1.5	2.0+
Surface Area (acres)	49.6	38.5	48.8	1.0
Storage Capacity (gallons)	57M	44M	56M	1M
40 CFR Part 257, Subpart D, Y/N	N	N	N	N
Date of Construction	1940's	1940's	1940's	1940's

Technical Report 1.0

Item No. 4 - Outfall Wastestream Contributions

Outfall 001

Contributing Wastestreams	Volume (MGD)	% of Total Flow
Outfall 101	3.590	48.67
Outfall 201	3.786	51.33
Total	7.376	100.00

Outfall 101

Contributing Wastestreams	Volume (MGD)	% of Total Flow
Non-contact Storm Water & Miscellaneous Clean Streams	0.045	2.32
Non-contact cooling water	1.795	92.31
Compressor and Steam Condensate	0.020	1.02
Boilers and Cooling Towers Blowdown (Including Regen)	0.046	2.34
Filter Backwash	0.008	0.39
Treated Disinfected Sanitary Wastewater (Outfall 301)	0.003	0.16
Sabine River Authority Make-up Water	0.023	1.21
Process Wastewater (Including Contaminated Storm Water)	0.017	0.88
Evaporation	-0.012	-0.63
Total	1.945	100.00

Outfall 201

Contributing Wastestreams	Volume (MGD)	% of Total Flow
Process Wastewater (Including Contaminated Storm Water)	1.869	49.38
Storm Water	2.019	53.32
Cooling Water Ponds Stream	0.000	0.00
Boilers & Cooling Towers Blowdown (Including Regen)	0.546	14.42
Filter Backwash	0.308	8.14
Evaporation	-0.956	-25.26
Total	3.786	100.00

Outfall 301

Contributing Wastestreams	Volume (MGD)	% of Total Flow
Sanitary Wastewater	0.180	83.33
Non-contact Storm Water	0.036	16.67
Total	0.216	100.00

Technical Report 1.0

Item No. 4 - Outfall & Wastewater Characterizations

Outfall 001 discharges directly to the Sabine River and is comprised of storm water runoff and previously monitored effluent from Outfalls 101 and 201. Specific types of wastewaters include process wastewater, recirculated non-contact cooling water, domestic wastewater, utility wastewaters, and storm water via Outfall 101 on an intermittent and flow variable basis; and treated process wastewater, utility wastewater, treated laboratory wastewater, steam condensate, clarifier effluent, domestic wastewater, non-contact cooling water, and storm water via Outfall 201 at a daily average flow not to exceed 16 million gallons per day (MGD).

Domestic wastewater undergoes solids removal and anaerobic biodegradation and the effluent is chlorinated prior to discharging into the cooling water reservoir system via monitored Outfall 301. Wastewaters from the freshwater clarifier blowdown and cooling towers also undergo solids settling prior to entering the cooling water reservoir system. Wastewater that is added or returned to the cooling water reservoir system is reused via the site's closed loop cooling water system. Water from the reservoir system is transferred to the wastewater treatment surface impoundments via pump/filter blowdowns or via a siphon system that is utilized to help maintain reservoir level and proper chloride concentration. Oil and grease recovery and floating solids removal is provided in the system at several locations in the production areas and the cooling water system prior to discharging from the Outfall 101 dam structure and mixing with Outfall 201. Upstream of Outfall 201 wastewater treatment processes include: oil and grease recovery and floating solids removal, air stripping and neutralization, followed by treatment in a series of surface impoundments.

The discharge of process wastewater refers to any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product.

The discharge of treated process wastewater and treated laboratory wastewater is subject to federal effluent limitation guidelines at 40 CFR Part 414 Subpart D, F, G, H, and I, and the discharge of process wastewater from hydrogen cyanide process is regulated under 40 CFR Part 415, Subpart AP.

The discharge of utility wastewater (including, but not limited to, boiler blowdown, cooling tower blowdown & overflow, steam condensate, air compressor condensate, potable water (including freeze bleeds and line flushes), clarifier effluent, non-contact cooling water, air-conditioning condensate, water softener demineralizer regeneration effluent, and emergency firewater wash-down) is not subject to federal effluent limitation guidelines and any technology-based effluent limitations are based on best professional judgement.

Wastewater that is generated by cleanup of spills, leaks, wash down associated with manufacturing activities, including storage and transfer of raw materials, intermediates, products, by-products, equipment wash down and waste products, that meets the definition of process wastewater at 40 CFR 401.11(q) may be treated using the treatment methods described in the permit application and then discharged as process wastewater provided that all effluent limitations and conditions in the permit are complied with.

Technical Report 1.0 - Work Sheet 1.0 - Item No. 3

Summary of Estimated Process/Non-Process Wastewater Flows

PROCESS WATER FLOWS	**GPM**	**MGD**
Invista HCN* Flow (pre idle = 200 gpm)	0	0.00
OCPSF FLOWS		
Invista Hexamethylene Diamine Production	100	0.14
Invista Adipic Acid / Nitric Acid* (pre idle = 200 gpm)	0	0.00
Invista Adipic Acid / Nitric Acid* (pre idle = 360 gpm)	0	0.00
Invista Cyclohexane Oxidation* (pre idle = 345 gpm)	0	0.00
Invista Cyclohexane Oxidation* (pre idle = 40 gpm)	0	0.00
Invista Adiponitrile Production* (pre idle = 15 gpm)	0	0.00
Invista ADN Catalyst Production* (pre idle = 50 gpm)	0	0.00
Ethylene Copolymer Specialities	25	0.04
Ethylene Copolymer Specialities	10	0.01
Ethylene Production	525	0.76
Railcar Washing	20	0.03
Invista & Dow Process Area Stormwater	484	0.70
Invista & Dow Process Area Stormwater	80	0.12
Invista & Dow Process Area Stormwater	200	0.29
Invista & Dow Tank Farm Process/Storage Area	113	0.16
Low Density Polyethylene Production	420	0.60
Low Density Polyethylene Production	85	0.12
Low Density Polyethylene Production	83	0.12
Invista & Dow Laboratory/Pilot Plant Effluents	25	0.04
TOTAL =	**2,170**	**3.12**
NON-PROCESS WATER FLOWS		
Sanitary & Raw Water Clarification	1,050	1.51
CTBD, Boiler Blowdown, Demin regenerant	2,750	3.96
TOTAL =	**3,800**	**5.47**

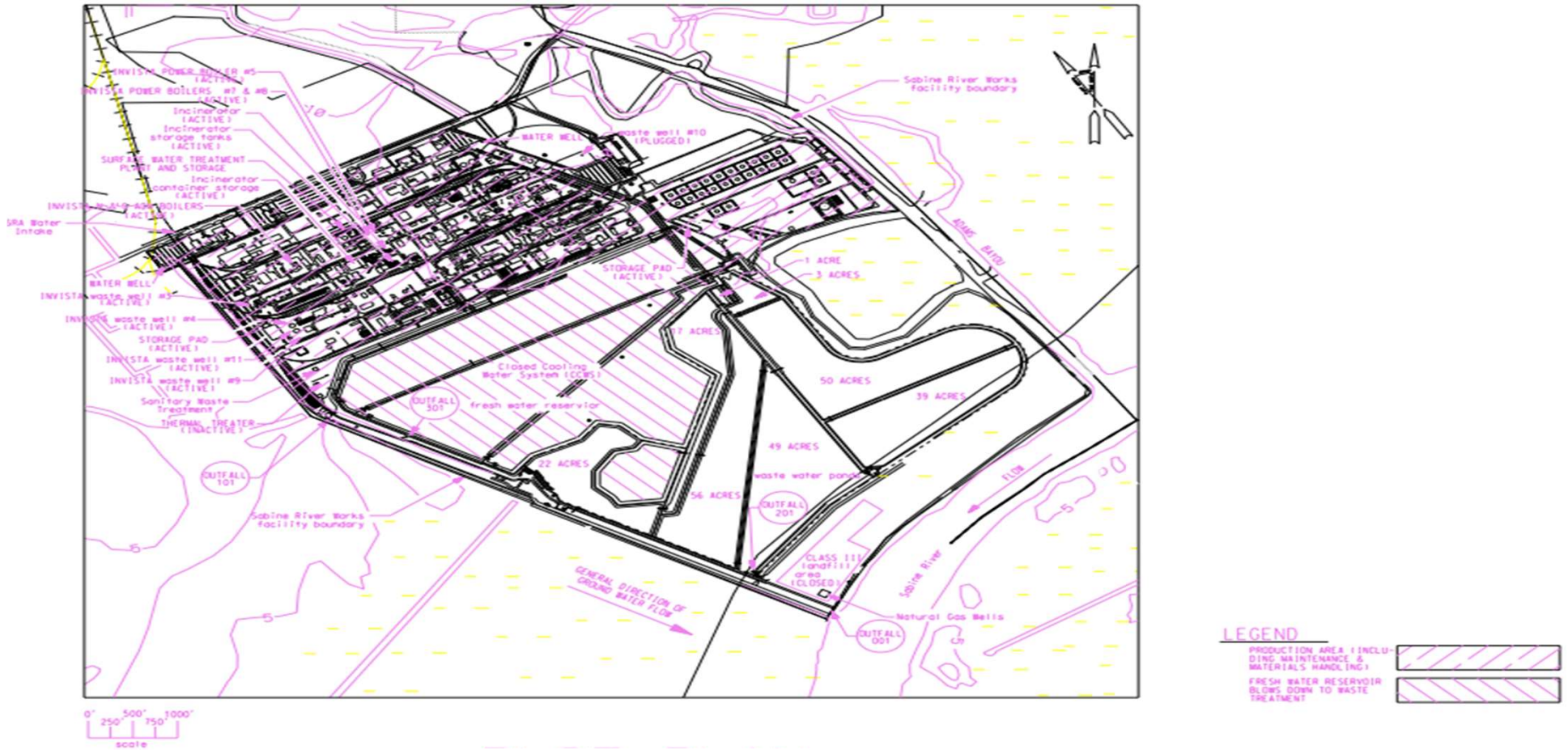
* Area is currently idled

FACILITY MAPS

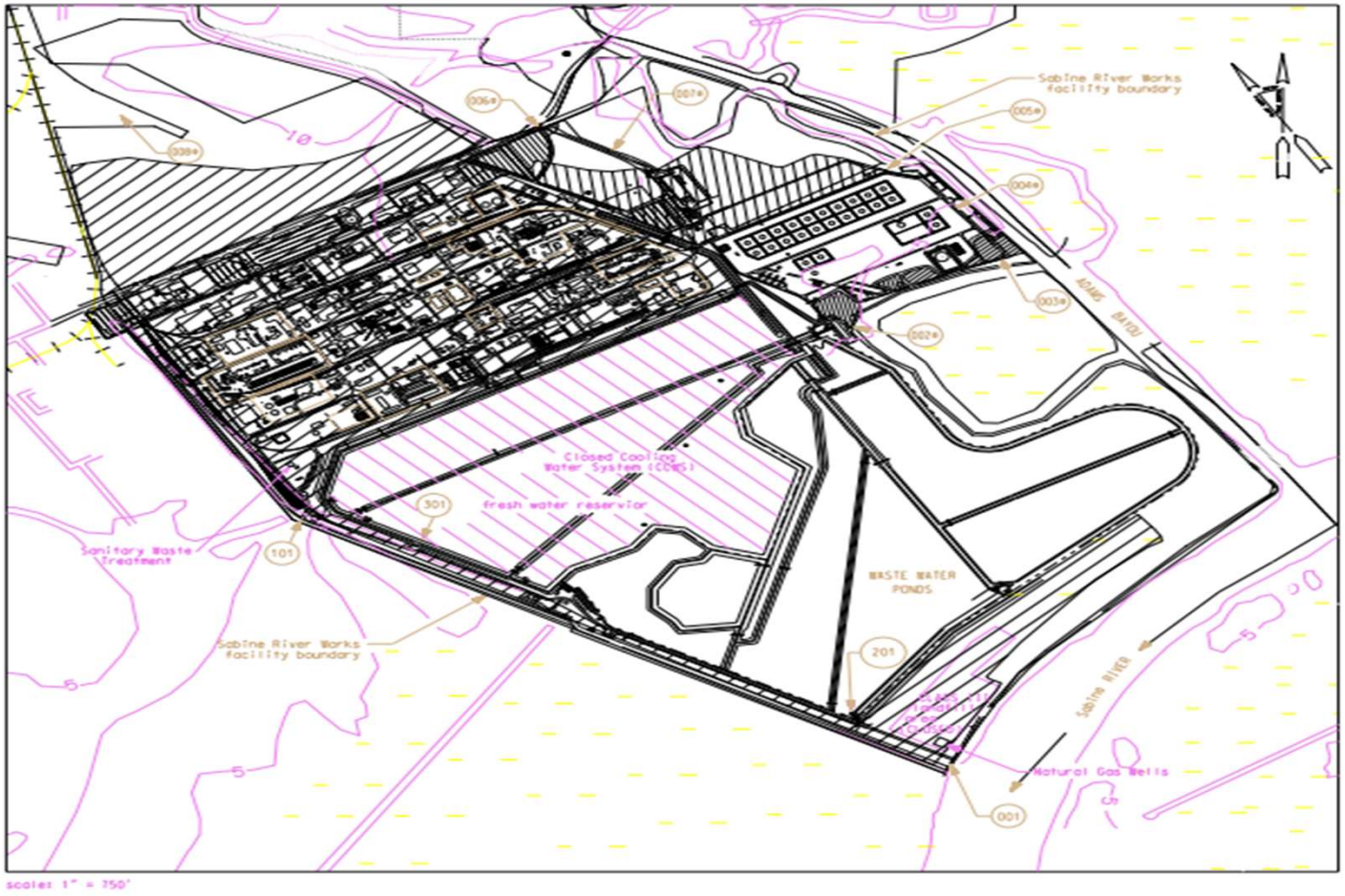
TECHNICAL REPORT 1.0
ITEM NO. 1.D. ATTACHMENT

TPDES Permit ID WQ0000475000

SRO36380 - SRO Production, Waste Treatment, & Disposal Areas



SRO36674 - SRO OUTFALLS



NOTES

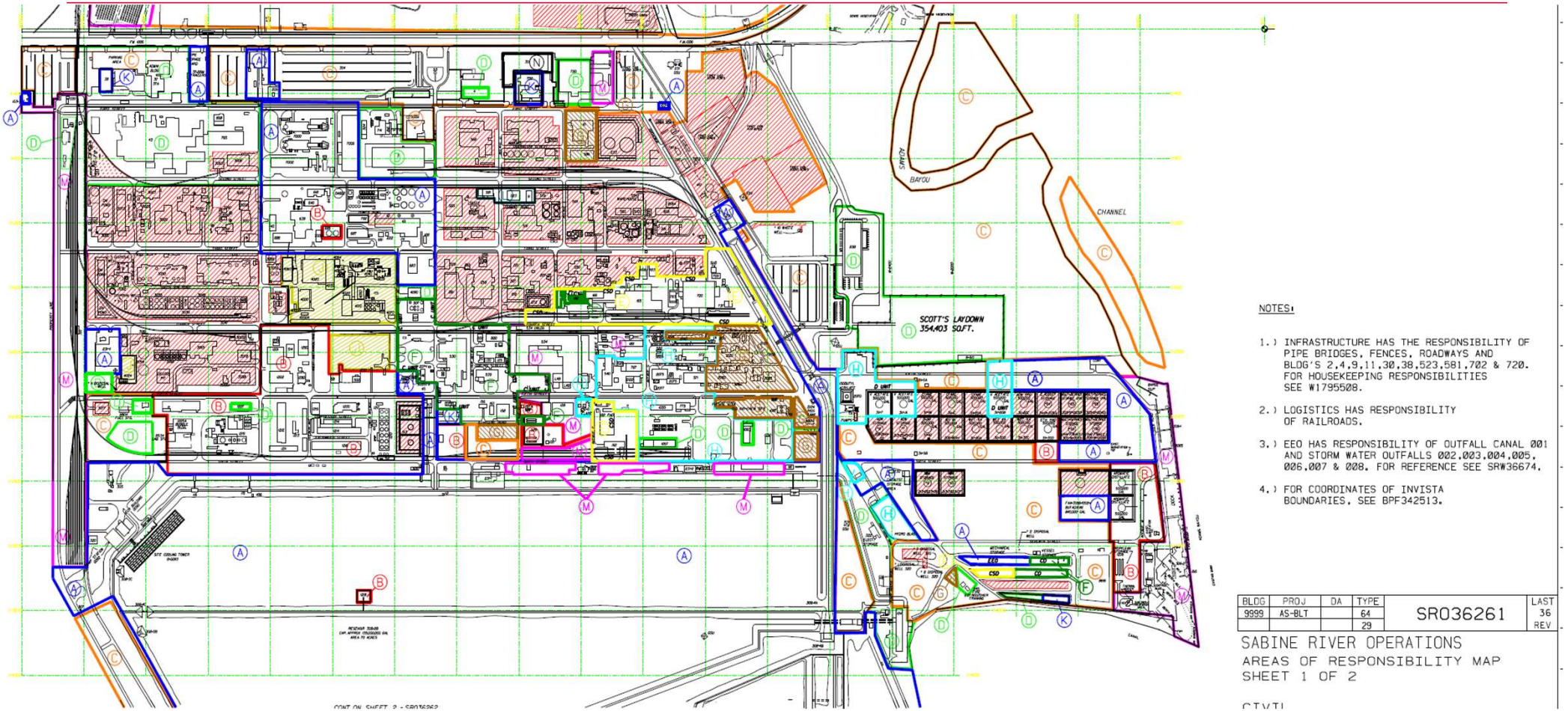
1. FOR NAMES AND APPROX. BOUNDARIES OF PRODUCTION AREAS, SEE DRAWING SRM52361

LEGEND

OUTFALL 201
DRAINAGE AREA

* STORM WATER OUTFALL COVERED BY MULTI-SECTOR GENERAL PERMIT

SRO36261 - SRO Land & Ownership Map



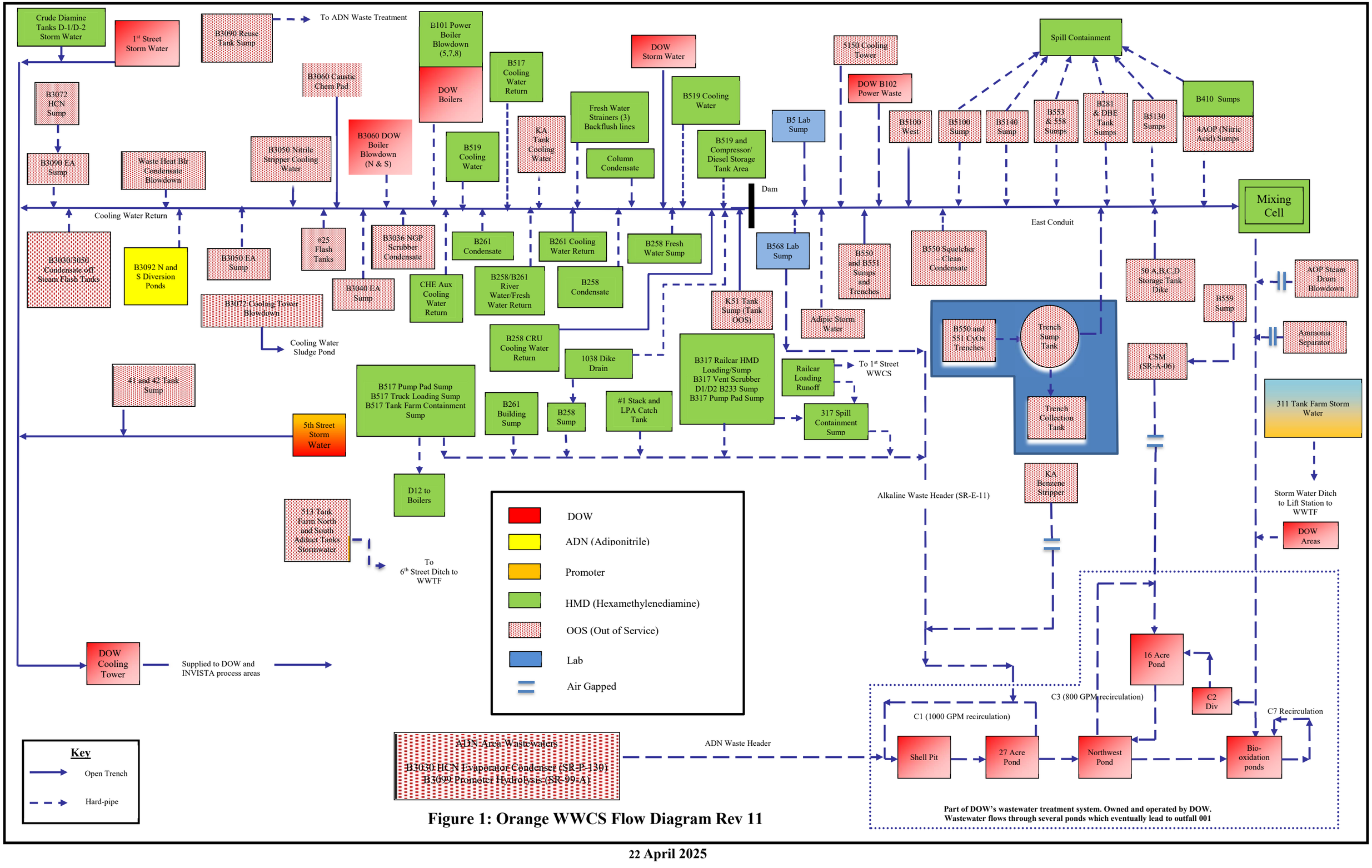


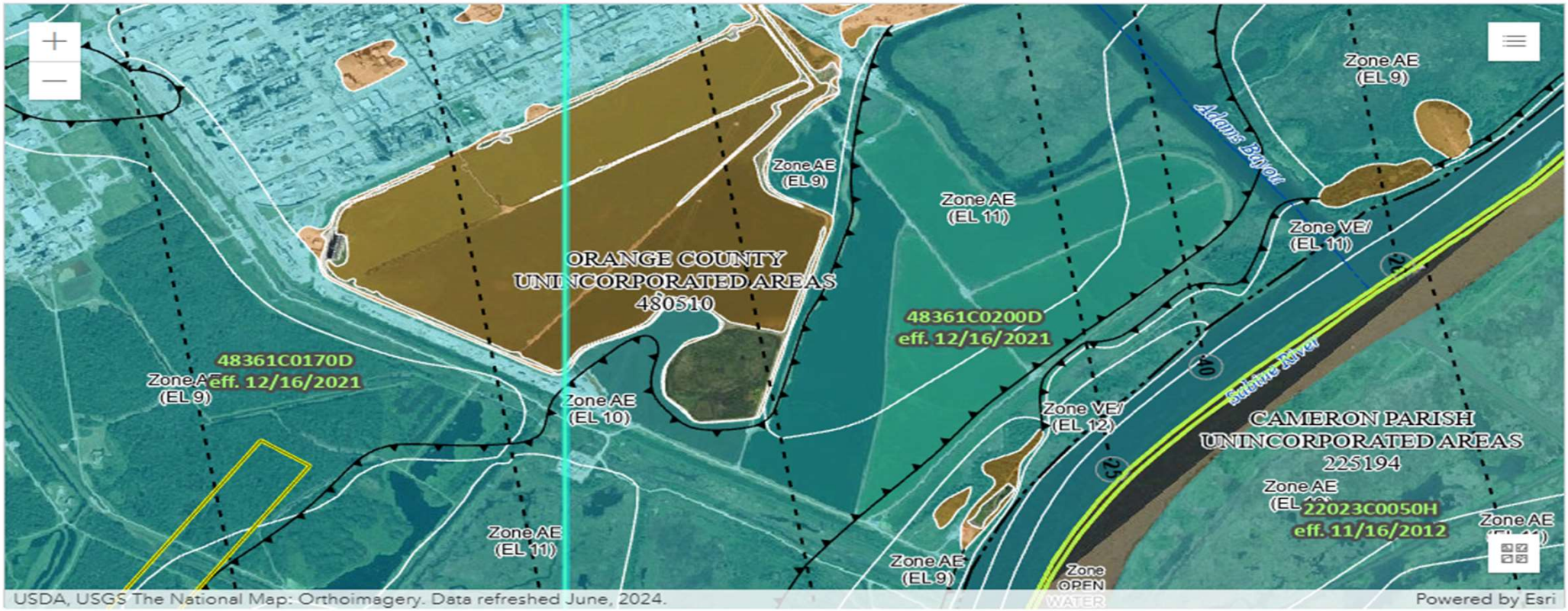
Figure 1: Orange WWCS Flow Diagram Rev 11

22 April 2025

FEMA Flood Maps

Technical Report 1.0
Item No. 1.f. Attachment

WQ0000475000



PIN
- Approximate location based on user input and does not represent an authoritative property location

MAP PANELS
- Selected FloodMap Boundary
- Digital Data Available
- No Digital Data Available
- Unmapped

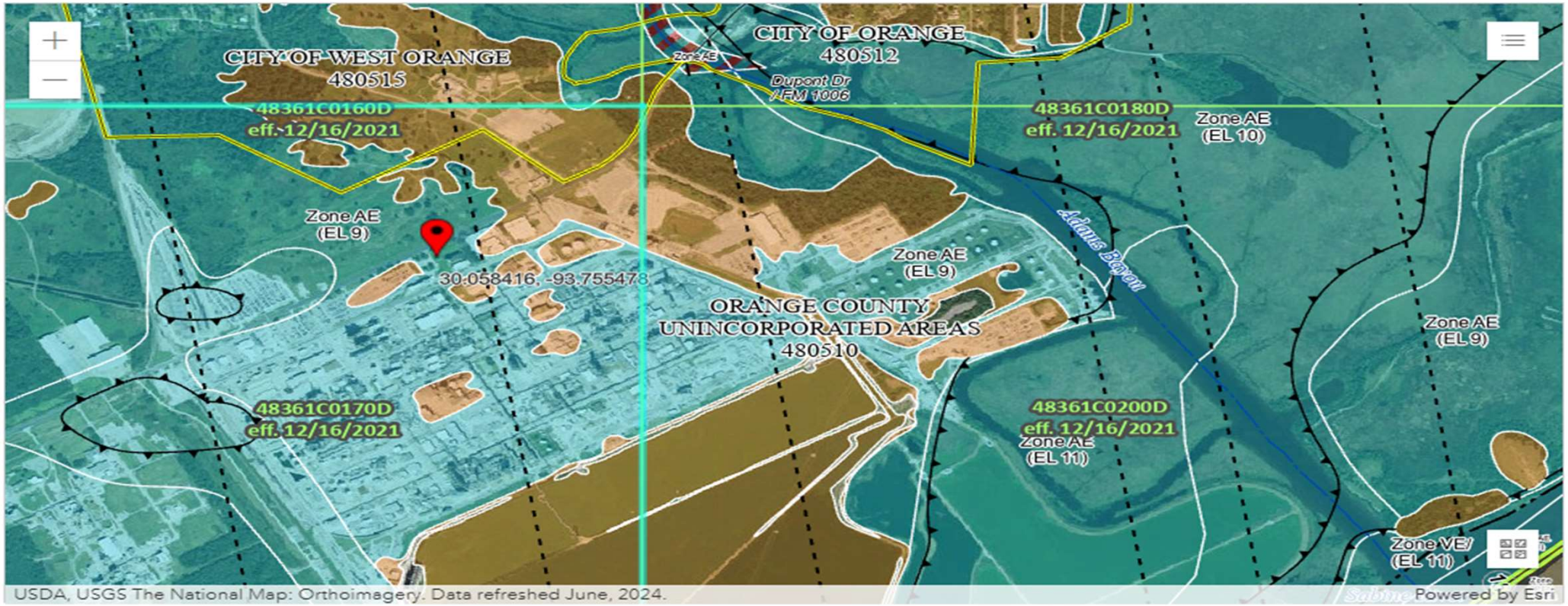
OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*
- Otherwise Protected Area
- Coastal Barrier Resource System Area

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth
- Regulatory Floodway *Zone AE, AO, AH, VE, AR*

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER FEATURES
- 20.2 / 17.5 — Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall



PIN
- Approximate location based on user input and does not represent an authoritative property location

MAP PANELS
- Selected FloodMap Boundary
- Digital Data Available
- No Digital Data Available
- Unmapped

OTHER AREAS
- Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*
- Otherwise Protected Area
- Coastal Barrier Resource System Area

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth
- Regulatory Floodway *Zone AE, AO, AH, VE, AR*

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

Sabine River Operations

TPDES Permit Renewal Focus

TCEQ-20971 Attachment No. 2

Property Usage Description and Outfalls Overview

SRO Property Description

The Dow Chemical Company Sabine River Operations site, located in Orange, Texas, consists of ~1,600 acres and approximately a third of which is inside the developed fence-line devoted to manufacturing. The Closed Cooling Water Reservoirs and Biopond Systems consist of approximately 197- and 235-Acres, respectively.

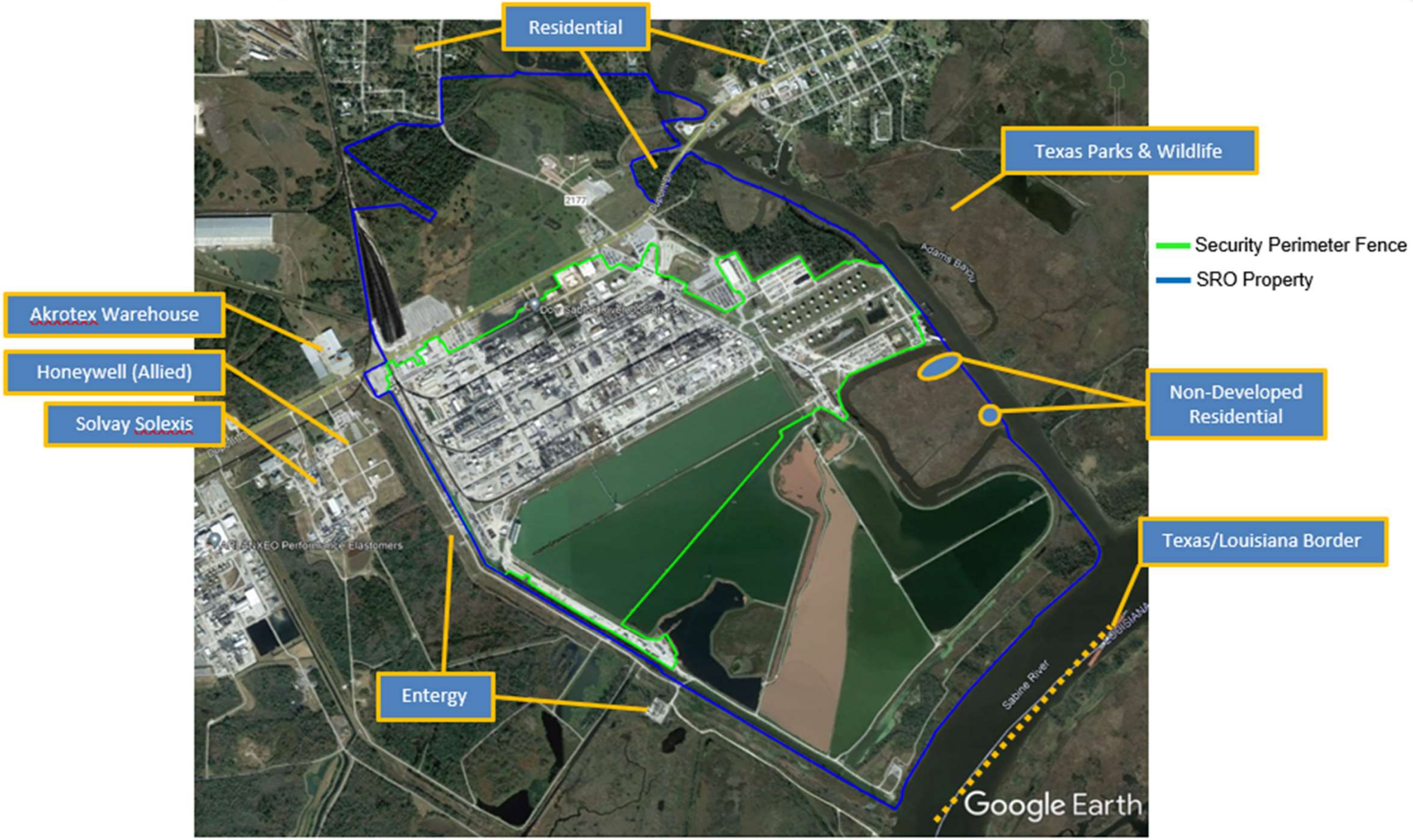
The SRO site is comprised of the following manufacturing facilities:

- C Unit
- D Unit
- G Unit (Joint Venture - Celanese Owned / Dow Operated)
- CSD
- SR-1 (Ethylene)
- I-Park Tenants (Celanese, Arcwood, and Invista)

And is supported by Dow Energy & Environmental Operations (EEO) and Site Logistics assets.

The developed SRO site is located in Orange County. The site borders Adams Bayou to the east and the Sabine River to the south. To the north and northeast of the site are residentials Orange neighborhoods but there is a greenbelt of approximately 3,000 ft and 2,000 ft. To the west, there are a variety of industrial tenants as well as wetlands. The site is also in close proximity to the Texas/Louisiana border along the south and east property which contain wetlands on either side of the state line.

SRO Property and Adjacent Neighbors



Site MSGP Storm Water Permit Outfalls

- The storm water outfalls are governed under a TCEQ Multi Sector General Permit (MSGP) for storm water discharges.

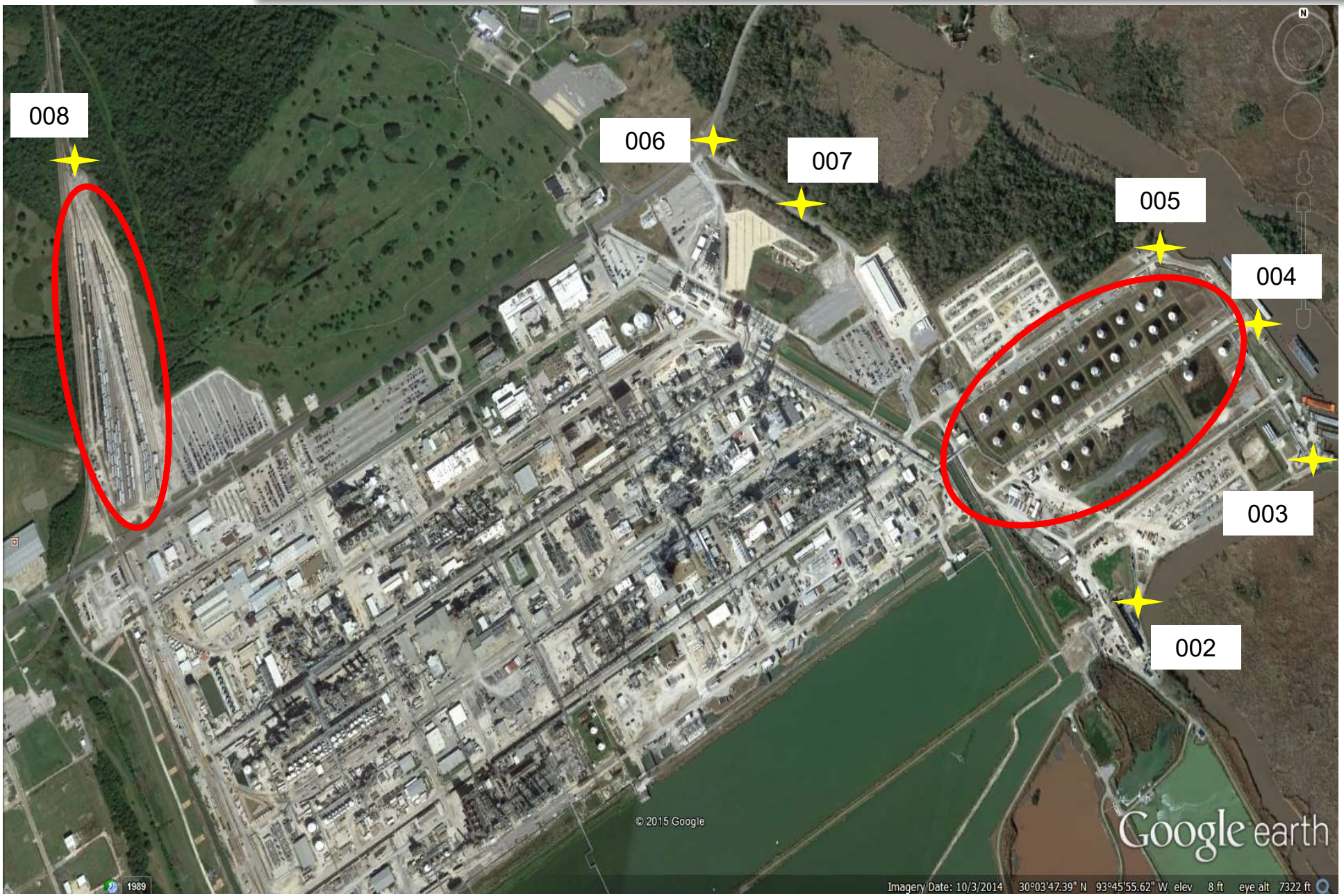
- (7) monitored storm water outfalls
  - "outside the site process area confines"
  - all discharge to Adams Bayou

- Fall under the (1) Chemical and Allied Products Manufacturing Facilities (Sector C) and (2) Hazardous Waste Treatment, Storage, or Disposal Facilities (Sector K) industrial activities and the (1) Plastic Materials and Synthetic Resins (SIC Code 2821) and (2) Industrial Organic Chemicals (SIC Code 2819) subsectors.

- Most outfall drainage areas are shared with INVISTA

- Responsible for SWPPP, quarterly inspections, and semi-annual benchmark monitoring

Site MSGP Storm Water Permit Outfalls



Site TPDES Permit "Industrial" Outfalls

- Site TPDES permit governs discharges of process water, domestic water, recirculated non-contact cooling water, storm water, and utility wastewaters (i.e., boiler blowdown, cooling tower blowdown & overflow, steam condensate, potable water, clarifier effluent, emergency firewater, and demineralized water, etc.)

- (4) monitored outfalls

  - 101 – Closed Cooling Water (CCW) and Reservoir Storage System; "Dam" gates (used intermittently as needed to discharge excess water)

  - 201 – Surface Impoundment Treatment System (continuous discharge)

  - 301 – Domestic wastewater discharge (intermittent into CCW System)

  - 001 – Final discharge to Sabine River comprised of Outfalls 101 & 201

Site TPDES Permit "Industrial" Outfalls

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING DOMESTIC OR 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 53)

Complete this form as a separate document. TCEQ will mail a copy to each agency as required by our agreement with EPA. If any of the items are not completely addressed or further information is needed, we will contact you to provide the information before issuing the permit. Address each item completely.

Do not refer to your response to any item in the permit application form. Provide each attachment for this form separately from the Administrative Report of the application. The application will not be declared administratively complete without this SPIF form being completed in its entirety including all attachments. Questions or comments concerning this form may be directed to the Water Quality Division's Application Review and Processing Team by email at WQ-ARPTeam@tceq.texas.gov or by phone at (512) 239-4671.

The following applies to all applications:

1. Permittee: The Dow Chemical Company

   Permit No. WQ00 00475000 EPA ID No. TX 00006327

   Address of the project (or a location description that includes street/highway, city/vicinity, and county):

   3055 FM 1006, Orange, Texas 77630 (Orange County)

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

Prefix (Mr., Ms., Miss): Mr.

First and Last Name: Richard Kirschner

Credential (P.E, P.G., Ph.D., etc.): Click here to enter text.

Title: EH&S Delivery Manager

Mailing Address: P.O. Box 1089

City, State, Zip Code: Orange, TX 77631-1089

Phone No.: 409-886-9511 Ext.: Click here to enter text. Fax No.: Click here to enter text.

E-mail Address: Richard.Kirschner@Dow.com

2. List the county in which the facility is located: Orange
3. If the property is publicly owned and the owner is different than the permittee/applicant, please list the owner of the property.

N/A

4. 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.

Discharge from Outfall 001 is directly to the Sabine River Tidal, Segment No. 0501 of the Sabine River Basin. Refer to attachments TCEQ-20971-Att1-USGS_TOPO and TCEQ-20971-Att2-Overview for additional details.

5. 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).

Provide original photographs of any structures 50 years or older on the property.

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

1. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features):

N/A – No new construction is proposed

2. Describe existing disturbances, vegetation, and land use:

Refer to TCEQ-20971 - Attachment No. 2 – Overview for details.

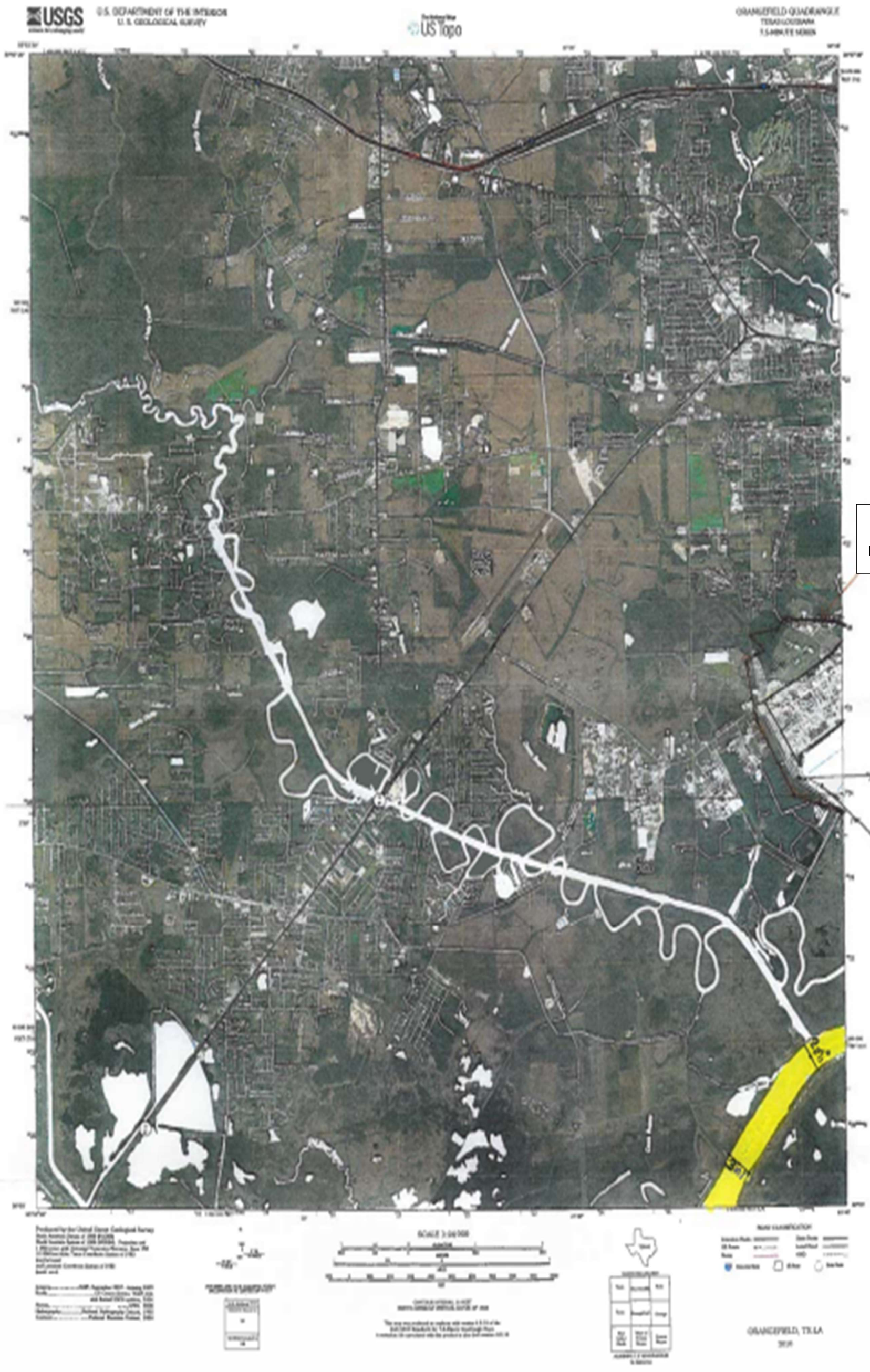
THE FOLLOWING ITEMS APPLY ONLY TO APPLICATIONS FOR NEW TPDES PERMITS AND MAJOR AMENDMENTS TO TPDES PERMITS

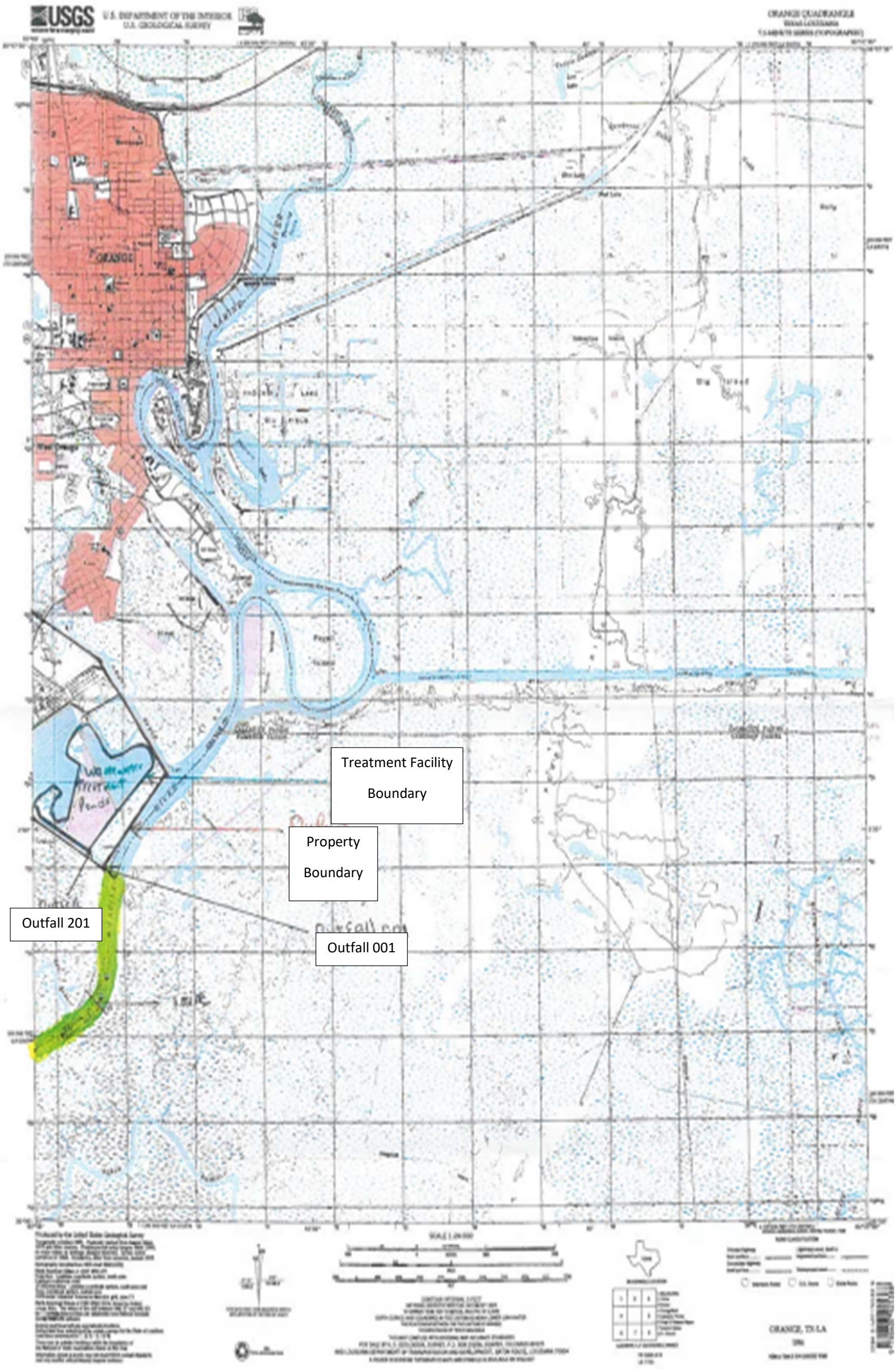
3. List construction dates of all buildings and structures on the property:

N/A – Renewal Only

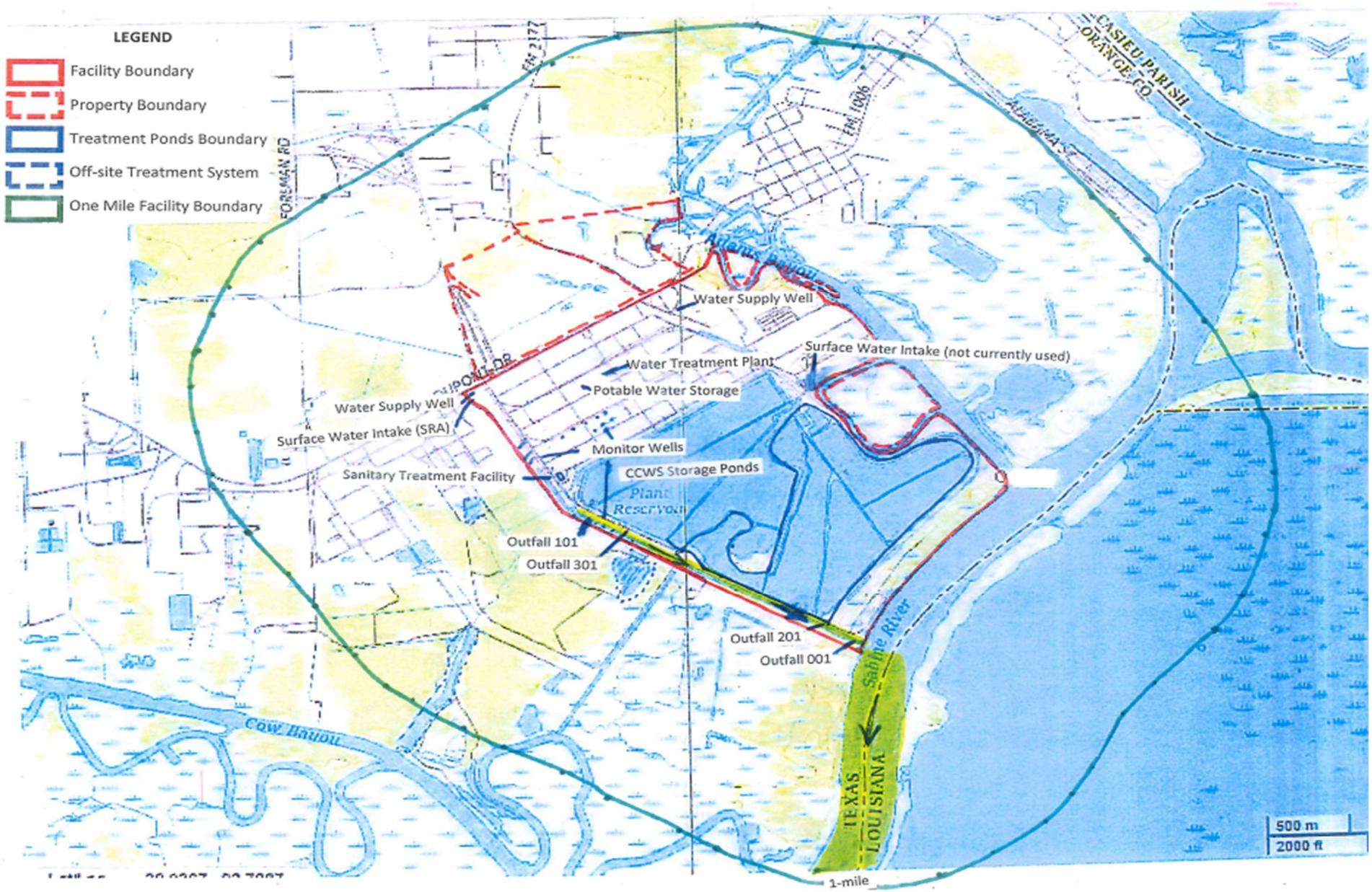
4. Provide a brief history of the property, and name of the architect/builder, if known.

N/A – Renewal Only

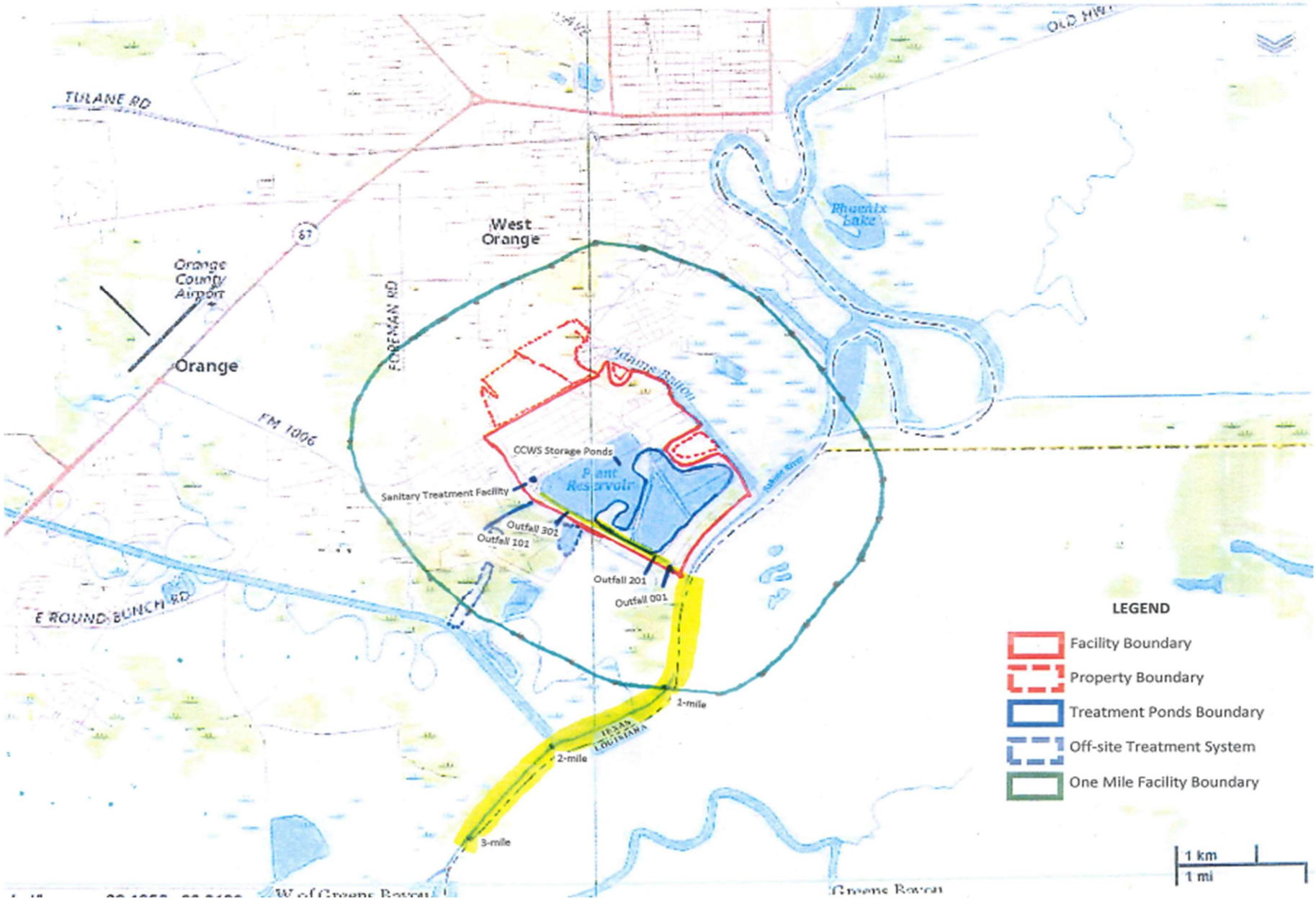

Property Boundary
Outfall 101
Outfall 301


Treatment Facility Boundary
Property Boundary
Outfall 201
Outfall 001

SPIF-1-USGS_Topo Maps Dow Sabine River Operations Facility Orange, Texas WQ0000475000



SPIF-1-USGS_Topo Maps Dow Sabine River Operations Facility Orange, Texas WQ0000475000



DOW

Sabine River Operations

March 5, 2025

Re: NetDMR Subscriber Agreement
TPDES Permit WQ0000475000
EPA ID No. TX00006327
CN-600356976
RN-100542711

Texas Commission on Environmental Quality
ATTN: Compliance Monitoring – MC-224
P. O. Box 13087
Austin, Texas 78711-3087

CERTIFIED MAIL: 9589 0710 5270 1714 3405 64

Enclosed please find a signed NetDMR Subscriber Agreement requesting access associated with TPDES Permit WQ000047500/EPA ID No. TX00006327. Cara Leigh Wright has recently replaced Mr. Dustin Hedges.

If you have any questions or need any additional information, please contact Richard Kirschner via email at Richard.Kirschner@dow.com.

Sincerely,

Richard A. Kirschner, Jr.
Environmental Specialist

Enclosure

PC: CL Wright

Agency: *Texas TCEQ*
Subscriber Agreement Number: *b051fb45-f5f7-4a21-92b0-864296d3512b*
Generated On: *2025-01-07 10:18:35.385*
Account Reference: *410977*

NetDMR Subscriber Agreement Instructions Page
This form can be used for permits issued by: Texas TCEQ, hereafter referred to as "the Regulatory Authority".

A. Signatory Authority Information

The Signatory Authority is the individual that intends to sign DMRs and signs this Subscriber Agreement in Section E.

User Name:	CEALEIGH
Subscriber Name:	Cara Wright
Organization:	DUPONT SABINE RIVER WORKS
Email Address:	clwright@dow.com
Phone Number:	(404) 625-7047

B. Permit Information

Signing privileges are requested for the following permits:

Permit ID	Facility Name	Facility Address	Relationship	Authorized By
TX0006327	PERFORMANCE MATERIALS	3055 FMR 1006 ORANGE, TX 77630	Facility	John Sampson

C. Terms and Conditions

- PURPOSE: This agreement creates a legally binding obligation for the signer of the Agreement (the Responsible Official and/or Signatory Authority) to abide by the terms and conditions for use of the NetDMR System, and memorializes a mutual understanding that the signer of this agreement is as legally bound, obligated, and responsible by use of the assigned electronic signature as by a hand-written signature.

- ACCEPTANCE & EFFECT: Acceptance of this agreement by the Regulatory Authority shall be evidenced by notice from the Regulatory Authority, provided electronically, that this agreement has been approved.

- SUBMITTAL & RECEIPT: A Document shall be deemed to have been submitted when it is accessible to the Regulatory Authority. A document shall be deemed to have been received

when it can be fully processed. No document shall satisfy any reporting requirement until it is received.

- VERIFICATION: In accordance with the associated certification statement, the signer of the Agreement is responsible for the truth and accuracy of the content of each submission. The signer of the Agreement also has an affirmative obligation to check the accuracy of the document as received by the Regulatory Authority and to notify the Regulatory Authority promptly if the document was sent without authorization or differs in substance in any way from the document that was submitted.

- INABILITY TO TRANSMIT OR FILE REPORTS ELECTRONICALLY: No party shall be liable for any failure to perform its obligations in connection with any Electronic Transaction or any Electronic Document, where such failure results from any act or cause beyond such party's control which prevents such party from electronically transmitting or receiving any Documents, except that the signer of the Agreement (Responsible Official and/or Signatory Authority) is nonetheless required to submit records or information required by law via other means, as provided by applicable law and within the time period provided by such law.

- SEVERABILITY: Any provision of the Agreement which is determined to be invalid or unenforceable will be ineffective to the extent of such determination without invalidating the remaining provisions of this Agreement or affecting the validity or enforceability of such remaining provisions.

- TERMINATION AND RENEWAL: The Agreement may be terminated at any time by the Regulatory Authority. Upon termination of this agreement, the associated ability to submit electronic information through the NetDMR system will be terminated. The Regulatory Authority will provide notification of termination, including the date on which termination takes effect. A new Responsible Official and/or Signatory Authority must resubmit this form at the time that a new permit application is submitted or when Responsible Official and/or Signatory Authority responsibility transfers from one person to another.
  -Note: Termination of this agreement may eliminate the ability to comply with permit requirements for any continuing operations. Paper DMR Reports will only be accepted under this permit where the permittee has provided sufficient justification and obtained prior approval from the Regulatory Authority.

D. Responsible Official Authorization

The Responsible Official is the appropriate individual identified under 40 CFR §122.22(a) with the authority to sign permit applications, reports, and other permit-required submittals (e.g., DMRs). The Responsible Official can also delegate the authority to electronically sign DMRs to a duly authorized representative(s) as described in 40 CFR §122.22(b).

Permit ID(s): TX0006327

I, John Sampson Operations Senior Vice President, have the authority to enter into this Agreement for PERFORMANCE MATERIALS and Permit ID TX0006327 under the applicable standards. I request Texas TCEQ grant Cara Wright the ability to submit DMRs for Permit ID TX0006327.

Responsible Official Name: John Sampson
Title: Operations Senior Vice President
Phone Number: 989-636-5836
Email Address: jmsampson@dow.com

John M Sampson — February 3, 2025

Responsible Official Signature — Date

E. Signatory Authority Signature

The Signatory Authority is the NetDMR user that submits this agreement to request approval to electronically sign DMRs. The Signatory Authority has the authority to sign DMRs under 40 CFR §122.22(a) or is a duly authorized representative(s) who has been delegated the authority to electronically sign DMRs by the Responsible Official as described in 40 CFR §122.22(b).

Permit ID: TX0006327

I, Cara Wright, am authorized by the signatory authority named in Part D of this document, who does have the authority under the applicable standards, to enter into this agreement for PERFORMANCE MATERIALS and Permit ID TX0006327.

By submitting this application for TX0006327, I, Cara Wright, have read, understand, and accept the terms and conditions of this subscriber agreement. I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Title: Senior Responsible Care Director

Cara Wright — February 28, 2025

Signatory Authority Signature — Date

Print this form, save a copy for your records, and mail to:
Texas TCEQ
Attn: Compliance Monitoring – MC224
P.O. Box 13087
Austin , TX 78711-3087

Checklist - Regulatory Authority Use Only:

Check	Information	Name	Date
	Form Received by		
	Verified ICIS-NPDES Permit Limits		
	Regulatory Authority Approves NetDMR Authorization		
	ICIS-NPDES NetDMR Flag Populated		
	User Approved in NetDMR Application		
	Notification to User		
	Inactivated?		

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

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, please refer to the Instructions for Completing the Industrial Wastewater Permit Application[1] available on the TCEQ website. Please contact the Industrial Permits Team at 512-239-4671 with any questions about this form.

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.

Item 1. Facility/Site Information (Instructions, Page 39)

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

Manufacturing organic and inorganic chemicals, polymers, and operation of an industrial hazardous waste incinerator and cogeneration facilities. Refer to Attachments – TR_Item1a-c-SiteInfo, TR_INVISTA_Desc, and TR_INVISTA_Fig1 for additional details.

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

Refer to Attachments – TR_Item1a-c-SiteInfo, TR_INVISTA_Desc, and TR_INVISTA_Fig1 for additional details.

[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
Refer to Attachment - TR_Item1a-c-SiteInfo for list	Refer to Attachment - TR_Item1a-c-SiteInfo for list	Refer to Attachment - TR_Item1a-c-SiteInfo for list

Attachment: TR_Item1a-c-SiteInfo, TR_INVISTA_Desc, and TR_INVISTA_Fig1

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: TR_Item1d-SiteMaps

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

☐ Yes ☒ No

If **yes**, provide background discussion: N/A

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 Map 48361C0170D, effective 12/16/2021 & 48361C0200D, effective 12/16/2021.

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: The elevation of the 100-year frequency flood plain is mainly 9 feet (msl)/Zone AE, according to the FEMA Flood Maps 48361C0170D and 48361C0200D, both effective 12/16/2021. Previous site land elevation surveys indicate that some of the levees of the wastewater treatment basins are below 9 feet (msl) elevation. However, the levees surrounding the high strength treatment ponds (the 27-acre pond and the 16-

acre pond) are maintained at heights above the 100-year frequency flood level elevation and are typically operated with 2-3+ feet of freeboard to prevent potential overflow during storm events.

Attachment: TR_Item 1f-FloodMaps

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: N/A

If **no**, provide an approximate date of application submittal to the USACE: N/A

Item 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.

Refer to the TR_Item2a-TreatmentSystem attachment for details.

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: TR_Item2b-WaterBalance

Item 3. Impoundments (Instructions, Page 40)

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. Attach additional copies of the Impoundment Information table, if needed.

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 #**	**Pond #**	**Pond #**	**Pond #**
Use Designation: (T) (D) (C) or (E)	Refer to	Attached	TR_Item3-Impoundments	Document
Associated Outfall Number				
Liner Type (C) (I) (S) or (A)				
Alt. Liner Attachment Reference				
Leak Detection System, Y/N				
Groundwater Monitoring Wells, Y/N				
Groundwater Monitoring Data Attachment				
Pond Bottom Located Above The Seasonal High-Water Table, Y/N				
Length (ft)				
Width (ft)				

Parameter	Pond #	Pond #	Pond #	Pond #
Max Depth From Water Surface (ft), Not Including Freeboard				
Freeboard (ft)				
Surface Area (acres)				
Storage Capacity (gallons)				
40 CFR Part 257, Subpart D, Y/N				
Date of Construction				

Attachment: TR_Item3a-Impoundments

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**.

1. Liner data

☐ Yes ☐ No ☐ Not yet designed

2. Leak detection system or groundwater monitoring data

☐ Yes ☐ No ☐ Not yet designed

3. Groundwater impacts

☐ Yes ☐ No ☐ Not yet designed

NOTE: Item b.3 is required if the bottom of the pond is not above the seasonal high-water table in the shallowest water-bearing zone.

Attachment: N/A

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: N/A

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: N/A

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: N/A

Item 4. Outfall/Disposal Method Information (Instructions, Page 42)

Complete the following tables to describe the location and wastewater discharge or disposal operations for each outfall for discharge, 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/0r 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 Longitude and Latitude

Outfall No.	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)
001	30.217	93.4423
101	30.248	93.4524
201	30.222	93.4430
301	30.245	93.4513

Outfall Location Description

Outfall No.	Location Description
001	Plant conveyance canal discharge to the Sabine River
101	Upstream side of the cooling water system dam gate structure
201	Weir structure at the southwest corner of the Southwest Pond
301	Pipe discharge on the southwest side of the middle pond of the cooling water reservoir system

Description of Sampling Point(s) (if different from Outfall location)

Outfall No.	Description of sampling point
001	Utilize an access dock at the outfall location (same location)
101	Manual hand pump with intake tubing located upstream of Gate #1 at the dam structure (same location)
201	Access catwalk at the weir structure (same location)
301	Manual hand pump from sample tap installed at end of 4" pipe discharge (same location)

Outfall Flow Information – Permitted and Proposed

Outfall No.	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	Report	Report	No change	No change	N/A

Outfall No.	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)
101	Report	Report	No change	No change	N/A
201	16.0	20.0	No change	No change	N/A
301	Report	Report	No change	No change	N/A

Outfall Discharge – Method and Measurement

Outfall No.	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used
001	N	Y	Calculated (101 + 201 flows)
101	N	Y	Six individual 36" gated weirs with electronic level determinations
201	N	Y	7' weir with electronic level determinations including potential submergence compensation
301	Y	N	Ultrasonic open-channel flow transmitter

Outfall Discharge – Flow Characteristics

Outfall No.	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	N	Y	24	31	12
101	Y	N	N	1-24	~4-6	12
201	N	N	Y	24	31	12
301	Y	N	N	15-20	31	12

Outfall Wastestream Contributions

Outfall No. 001, 101, 201, & 301

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Refer to Attachment TR_Item4-OutfallContributions for details		

Outfall No. Click to enter text.

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow

Outfall No. Click to enter text.

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow

Attachment: TR_Item4-OutfallContributions

Item 5. Blowdown and Once-Through Cooling Water Discharges (Instructions, Page 43)

a. Indicate if the facility currently or proposes to:

☒ Yes ☐ No Use cooling towers that discharge blowdown or other wastestreams

☒ Yes ☐ No Use boilers that discharge blowdown or other wastestreams

☐ Yes ☒ No Discharge once-through cooling water

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

b. If **yes** to any of the above, attach an 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.

In addition to each SDS, attach a summary of the above information for each specific wastestream and the associated chemical additives. Specify which outfalls are affected.

Attachment: TR_Item5b-TreatmentChemInv

c. Cooling Towers and Boilers

If the facility currently or proposes to use cooling towers or boilers that discharge blowdown or other wastestreams to the outfall(s), complete the following table.

Cooling Towers and Boilers

Type of Unit	Number of Units	Daily Avg Blowdown (gallons/day)	Daily Max Blowdown (gallons/day)
Cooling Towers	4	612,200	764,800
Boilers	18	147,631	355,602

Item 6. Stormwater Management (Instructions, Page 44)

Will any existing/proposed outfalls 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 a manner which may result in exposure of the activities or materials to stormwater: TR_Item6-StormWaterMgt

Item 7. Domestic Sewage, Sewage Sludge, and Septage Management and Disposal (Instructions, Page 44)

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: Portable toilets may be utilized in remote areas where domestic sewage connections are not available, or they are used on a temporary basis associated with construction or area turn-around activities

when large groups of contractors are brought on-site. All domestic sewage waste that is generated in the portable toilets is removed and transported off-site for treatment and disposal by the licensed, contracted vendor providing the service.

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.
Refer to Attachment TR_Item7b-DomesticSewage for details	

Item 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: As part of the 2020 TPDES permit renewal, a pH monitoring and control system using CO_2 project was installed at Outfall 201. The project was incorporated into the current permit provisions, along with the specific pH monitoring provisions and limitations at Outfall 201 that have been in effect since December 1, 2021.

Item 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: Outfall 001 Chronic and Acute whole effluent toxicity (WET) testing per permit. Test results submitted per required frequency to TCEQ via DMRs and emailed summarized result tables.

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

Item 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.

☐ 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: Click to enter text.

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.**

Item 11. Radioactive Materials (Instructions, Page 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 Name	Concentration (pCi/L)
N/A	

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 Name	Concentration (pCi/L)
N/A	

Item 12. Cooling Water (Instructions, Page 46)

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

- ☒ Yes
- ☐ No
- ☐ Decommissioned: Click to enter text.
- ☐ To Be Decommissioned: Click to enter text.

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

If **decommissioned**, provide the date operation ceased and stop here.

If to **be decommissioned**, provide the date operation is anticipated to cease and stop here.

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

1. 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	Primary Intake - Not Assigned	Secondary Intake - Not Assigned		
Owner	Sabine River Authority of Texas	Sabine River Authority of Texas		
Operator	Sabine River Authority of Texas	Sabine River Authority of Texas		

2. Cooling water is/will be obtained from a Public Water Supplier (PWS)

☐ No ☒ Yes; PWS No.: 1810193 – Earl Williams Pump Station

If **no**, continue. If **yes**, provide the PWS Registration No. and stop here.

3. Cooling water is/will be obtained from a reclaimed water source?

☐ No ☐ Yes; Auth No.: Click to enter text.

If **no**, continue. If **yes**, provide the Reuse Authorization No. and stop here.

4. Cooling water is/will be obtained from an Independent Supplier

☐ No ☐ Yes; AIF: Click to enter text.

If **no**, proceed to Item 12.d. If **yes**, provide the actual intake flow of the Independent Supplier's CWIS that is/will be used to provide water for cooling purposes and proceed.

d. 316(b) General Criteria

1. 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

2. At least 25% of the total water withdrawn by the CWIS(s) is/will be used at the facility exclusively for cooling purposes on an annual average basis.

☐ Yes ☐ No

3. 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. Explanation: Click to enter text.

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.*

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.1-3 and 6, 2.b.1, and 3.a to allow for a determination based upon BPJ.

f. Oil and Gas Exploration and Production

1. 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.

2. 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.1-3 and 6, 2.b.1, and 3.a to allow for a

determination based upon BPJ. If **no**, skip to Item 12.g.3.

g. Compliance Phase and Track Selection

1. Phase I - New facility subject to 40 CFR Part 125, Subpart I

☐ Yes ☐ No

If **yes**, check the box next to the 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.

2. 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.

3. Phase III - New facility subject to 40 CFR Part 125, Subpart N

☐ Yes ☐ No

If **yes**, check the box next to the 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 CWIS latitude/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.

Item 13. Permit Change Requests (Instructions, Page 48)

This item is only applicable to existing permitted facilities.

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.

N/A

b. Is the facility requesting any **minor amendments** to the permit?

☐ Yes ☒ No

If **yes**, list and describe each change individually.

Click to enter text.

c. Is the facility requesting any **minor modifications** to the permit?

☒ Yes ☐ No

If **yes**, list and describe each change individually.

Any mention of the previous entity: Performance Materials NA, Inc. shall be replaced with The Dow Chemical Company.

Item 14. Laboratory Accreditation (Instructions, Page 49)

All laboratory tests performed must meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*, which includes the following general exemptions from National Environmental Laboratory Accreditation Program (NELAP) certification requirements:

- The laboratory is an in-house laboratory and is:
  - periodically inspected by the TCEQ; or
  - located in another state and is accredited or inspected by that state; or
  - performing work for another company with a unit located in the same site; or
  - performing pro bono work for a governmental agency or charitable organization.

- The laboratory is accredited under federal law.
- The data are needed for emergency response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.
- The laboratory supplies data for which the TCEQ does not offer accreditation.

The applicant should review *30 TAC Chapter 25* for specific requirements.

The following certification statement shall be signed and submitted with every application. See the *Signature Page* section in the Instructions, for a list of designated representatives who may sign the certification.

CERTIFICATION:

I certify that all laboratory tests submitted with this application meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.*

Printed Name: Cara Leigh Wright

Title: Senior Responsible Care Director

Signature: _____

Date: 5/14/25

INDUSTRIAL WASTEWATER PERMIT APPLICATION 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).

Item 1. Categorical Industries (Instructions, Page 53)

Is this facility subject to any 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 below.

40 CFR Effluent Guideline

Industry	40 CFR Part
Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF)	414
Inorganic Chemicals	415

Item 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 appropriate data for effluent guidelines with production-based effluent limitations.

Production Data

Subcategory	Actual Quantity/Day	Design Quantity/Day	Units
HCN Subpart AP	Area curtailed production as of January 2024	Piping has been flanged and/or air-gapped and process wastewater is no longer generated.	Equipment remains and could potentially be restarted, so plan to leave any previous monitoring provisions in the permit.

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*.

Percentage of Total Production

Subcategory	Percent of Total Production	Appendix A and B - Metals	Appendix A - Cyanide
Subpart D	18.9	Zn, Ni, Cr	LDPE & Copolymers
Subpart F	37.9	Cu[1], Ni, Cr	Adipic Acid[2], Ethylene
Subpart G	43.2	Ni	Adiponitrile (ADN)[2], KA[2], HMD
Subpart H	0	N/A	ADN[2] Catalyst
		[1] associated with Adipic Acid	[2]currently idled

c. Refineries (40 CFR Part 419)

Provide the applicable subcategory and a brief justification.

N/A

Item 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.

Refer to Attachment TR_WS-1_Item3-WW_Flows for details.

Item 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
N/A			

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 2.0: POLLUTANT ANALYSIS

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.

Item 1. General Testing Requirements (Instructions, Page 55)

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): 04/08/2025 – 04/30/2025

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:** TR_WS-2_Item1c-LabInfo

Item 2. Specific Testing Requirements (Instructions, Page 56)

Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. **Attachment:** N/A

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)	9	13	11	9
CBOD (5-day)	9	10	11	8
Chemical oxygen demand	75	47	31	32
Total organic carbon	10	16	14	9
Dissolved oxygen	3.58	5.70	1.36	5.53
Ammonia nitrogen	<0.45	<0.45	<0.45	<0.45
Total suspended solids	24	76	14	7
Nitrate nitrogen	0.13	0.12	0.059	0.073
Total organic nitrogen	2.13	1.12	1.62	2.07
Total phosphorus	0.52	0.32	0.27	0.12
Oil and grease	<2.0	<2.0	<2.0	<2.0

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
Total residual chlorine	<1	<1	<1	<1
Total dissolved solids	149	472	570	242
Sulfate	160	170	240	80
Chloride	68	47	63	31
Fluoride	<0.10	<0.10	0.13	0.10
Total alkalinity (mg/L as CaCO3)	120	110	130	55
Temperature (°F)	63.9	66.0	74.8	64.0
pH (standard units)	6.94	6.99	7.30	6.52

Table 2 for Outfall No.: 001 **Samples are (check one): ☒ Composite ☐ Grab**

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Aluminum, total	830	5700	7300	290	2.5
Antimony, total	<2.0	<2.0	<2.0	<2.0	5
Arsenic, total	1.8	4.0	6.4	1.1	0.5
Barium, total	78	150	280	56	3
Beryllium, total	<0.50	0.52	1.1	<0.50	0.5
Cadmium, total	<0.50	<0.50	<0.50	<0.50	1
Chromium, total	<3.0	9.8	20	3.5	3
Chromium, hexavalent	<2.0	<2.0	<2.0	<2.0	3
Chromium, trivalent	3.0	9.8	20	3.5	N/A
Copper, total	5.5	17	35	3.4	2
Cyanide, available	<0.0016	0.0033	0.0018	<0.0016	2/10
Lead, total	2.3	8.6	19	0.94	0.5
Mercury, total	0.022	0.066	0.0058	0.0068	0.005/0.0005
Nickel, total	5.9	13	24	5.3	2
Selenium, total	<2.0	<2.0	2.7	<2.0	5
Silver, total	<0.50	<0.50	<0.50	<0.50	0.5
Thallium, total	<0.50	<0.50	<0.50	<0.50	0.5
Zinc, total	86	260	610	43	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): ☒ Composite ☐ Grab**

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Acrylonitrile	<14	<14	<14	<14	50
Anthracene	<0.094	<0.94	<0.94	<0.094	10
Benzene	<0.46	<0.46	<0.46	<0.46	10
Benzidine	<0.45	<4.5	<4.5	<0.45	50
Benzo(a)anthracene	<0.082	<0.82	<0.82	<0.082	5
Benzo(a)pyrene	<0.070	<0.70	<0.70	<0.070	5
Bis(2-chloroethyl)ether	<0.21	<2.1	<2.1	<0.21	10
Bis(2-ethylhexyl)phthalate	<1.4	<1.4	<1.4	<1.4	10
Bromodichloromethane [Dichlorobromomethane]	<0.55	<0.55	<0.55	<0.55	10
Bromoform	<0.63	<0.63	<0.63	<0.63	10
Carbon tetrachloride	<0.90	<0.90	<0.90	<0.90	2
Chlorobenzene	<0.46	<0.46	<0.46	<0.46	10
Chlorodibromomethane [Dibromochloromethane]	<0.55	<0.55	<0.55	<0.55	10
Chloroform	<0.46	<0.46	<0.46	<0.46	10
Chrysene	0.50	<0.82	<0.81	<0.082	5
m-Cresol [3-Methylphenol]	<0.14	<1.4	<1.4	<0.14	10
o-Cresol [2-Methylphenol]	<0.10	<1.0	<1.0	<0.11	10
p-Cresol [4-Methylphenol]	<0.14	<1.4	<1.4	<0.14	10
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0	10
m-Dichlorobenzene [1,3-Dichlorobenzene]	<0.41	<0.41	<0.41	<0.41	10
o-Dichlorobenzene [1,2-Dichlorobenzene]	<0.43	<0.43	<0.43	<0.43	10
p-Dichlorobenzene [1,4-Dichlorobenzene]	<0.45	<0.45	<0.45	<0.45	10
3,3'-Dichlorobenzidine	<0.18	<1.8	<1.8	<0.18	5

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
1,2-Dichloroethane	<0.37	<0.37	<0.37	<0.37	10
1,1-Dichloroethene [1,1-Dichloroethylene]	<0.74	<0.74	<0.74	<0.74	10
Dichloromethane [Methylene chloride]	<1.7	<1.7	<1.7	<1.7	20
1,2-Dichloropropane	<0.56	<0.56	<0.56	<0.56	10
1,3-Dichloropropene [1,3-Dichloropropylene]	<1.3	<1.3	<1.3	<1.3	10
2,4-Dimethylphenol	<0.19	<1.9	<1.9	<0.19	10
Di-n-Butyl phthalate	<1.4	<1.4	<1.4	<1.4	10
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	<7.5	<7.5	<7.5	<7.5	---
Ethylbenzene	<0.39	<0.39	<0.39	<0.39	10
Ethylene Glycol	<1200	<1200	<1200	<1200	---
Fluoride	<100	<100	130	100	500
Hexachlorobenzene	<0.097	<0.98	<0.97	<0.098	5
Hexachlorobutadiene	<0.10	<1.0	<1.0	<0.10	10
Hexachlorocyclopentadiene	<0.22	<2.2	<2.2	<0.22	10
Hexachloroethane	<0.10	<1.0	<1.0	<0.10	20
4,4'-Isopropylidenediphenol (bisphenol A)	0.95	0.95	<0.43	.<0.43	1
Methyl ethyl ketone	<8.3	<8.3	<8.3	<8.3	50
Methyl tert-butyl ether (MTBE)	<1.4	<1.4	<1.4	<1.4	---
Nitrobenzene	<0.074	<0.74	<0.74	<0.074	10
N-Nitrosodiethylamine	<0.54	<5.4	<5.4	<0.54	20
N-Nitroso-di-n-butylamine	<0.52	<5.2	<5.1	<0.52	20
Nonylphenol	<1.9	<19	<19	<1.9	333
Pentachlorobenzene	<0.27	<2.7	<2.7	<0.27	20
Pentachlorophenol	<0.20	<2.0	<2.0	0.22	5
Phenanthrene	<0.13	<1.3	<1.3	<0.13	10
Polychlorinated biphenyls (PCBs) (**)	<0.044	<0.044	<0.044	<0.044	0.2
Pyridine	<1.4	<14	<14	<1.4	20
1,2,4,5-Tetrachlorobenzene	<0.096	<0.96	<0.096	<0.096	20

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
1,1,2,2-Tetrachloroethane	<0.47	<0.47	<0.47	<0.47	10
Tetrachloroethene [Tetrachloroethylene]	<0.66	<0.66	<0.66	<0.66	10
Toluene	<0.48	<0.48	<0.48	<0.48	10
1,1,1-Trichloroethane	<0.59	<0.59	<0.59	<0.59	10
1,1,2-Trichloroethane	<0.41	<0.41	<0.41	<0.41	10
Trichloroethene [Trichloroethylene]	<1.5	<1.5	<1.5	<1.5	10
2,4,5-Trichlorophenol	<0.14	<1.4	<1.4	<0.14	50
TTHM (Total trihalomethanes)	<0.63	<0.63	<0.63	<0.63	10
Vinyl chloride	<0.43	<0.43	<0.43	<0.43	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)**

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

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)

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

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): ☐ Composite ☒ Grab**

Pollutant	Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin (µg/L)	N/A	N/A	N/A	N/A	0.010
Enterococci (cfu or MPN/100 mL)	104.3	20.9	1413.6	258.1	N/A
E. coli (cfu or MPN/100 mL)	N/A	N/A	N/A	N/A	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 that may contain pesticides or herbicides, check N/A.

☒ N/A

Table 5 for Outfall No.: N/A **Samples are (check one): ☐ Composite ☐ Grab**

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

Pollutant	**Sample 1 (µg/L)***	**Sample 2 (µg/L)***	**Sample 3 (µg/L)***	**Sample 4 (µg/L)***	**MAL (µg/L)***
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): ☒ Composite ☐ Grab**

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	☐	☒	<0.130				400
Color (PCU)	☒	☐	50* true color units				—
Nitrate-Nitrite (as N)	☒	☐	0.096				—
Sulfide (as S)	☐	☒	<0.029				—
Sulfite (as SO3)	☐	☒	<5				—
Surfactants	☒	☐	0.059				—
Boron, total	☒	☐	0.030				20
Cobalt, total	☐	☒	0.0024				0.3
Iron, total	☒	☐	3.4				7
Magnesium, total	☒	☐	2.9				20
Manganese, total	☒	☐	0.910				0.5
Molybdenum, total	☐	☒	0.00079				1
Tin, total	☐	☒	0.0022				5
Titanium, total	☐	☒	0.011				30

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

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/ Neutrals Table 10	Pesticides Table 11
☐ 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 **Samples are (check one): ☒ Composite ☐ Grab**

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Acrolein	<11				50
Acrylonitrile	<14				50
Benzene	<0.46				10
Bromoform	<0.63				10
Carbon tetrachloride	<0.90				2
Chlorobenzene	<0.46				10
Chlorodibromomethane	<0.55				10
Chloroethane	<2.0				50
2-Chloroethylvinyl ether	<0.75				10
Chloroform	<0.46				10
Dichlorobromomethane [Bromodichloromethane]	<0.55				10
1,1-Dichloroethane	<0.64				10
1,2-Dichloroethane	<0.37				10
1,1-Dichloroethylene [1,1-Dichloroethene]	<0.74				10
1,2-Dichloropropane	<0.56				10
1,3-Dichloropropylene [1,3-Dichloropropene]	<1.3				10
Ethylbenzene	<0.39				10
Methyl bromide [Bromomethane]	<1.4				50
Methyl chloride [Chloromethane]	<2.0				50
Methylene chloride [Dichloromethane]	<1.7				20

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
1,1,2,2-Tetrachloroethane	<0.47				10
Tetrachloroethylene [Tetrachloroethene]	<0.66				10
Toluene	<0.48				10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]	<0.37				10
1,1,1-Trichloroethane	<0.59				10
1,1,2-Trichloroethane	<0.41				10
Trichloroethylene [Trichloroethene]	<1.5				10
Vinyl chloride	<0.43				10

* Indicate units if different from µg/L.

Table 9 for Outfall No.: 001 **Samples are (check one): ☒ Composite ☐ Grab**

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
2-Chlorophenol	<0.075				10
2,4-Dichlorophenol	<0.14				10
2,4-Dimethylphenol	<0.19				10
4,6-Dinitro-o-cresol	<1.0				50
2,4-Dinitrophenol	<0.31				50
2-Nitrophenol	<0.14				20
4-Nitrophenol	<0.44				50
p-Chloro-m-cresol	<0.10				10
Pentachlorophenol	<0.20				5
Phenol	100				10
2,4,6-Trichlorophenol	<0.23				10

* Indicate units if different from µg/L.

Table 10 for Outfall No.: 001 **Samples are (check one): ☒ Composite ☐ Grab**

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Acenaphthene	<0.11				10
Acenaphthylene	<0.099				10
Anthracene	<0.094				10
Benzidine	<0.44				50

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Benzo(a)anthracene	<0.082				5
Benzo(a)pyrene	<0.070				5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]	<0.066				10
Benzo(ghi)perylene	<0.034				20
Benzo(k)fluoranthene	<0.066				5
Bis(2-chloroethoxy)methane	<0.097				10
Bis(2-chloroethyl)ether	<0.21				10
Bis(2-chloroisopropyl)ether	<0.13				10
Bis(2-ethylhexyl)phthalate	<1.4				10
4-Bromophenyl phenyl ether	<0.10				10
Butylbenzyl phthalate	<1.4				10
2-Chloronaphthalene	<0.38				10
4-Chlorophenyl phenyl ether	<0.13				10
Chrysene	<0.081				5
Dibenzo(a,h)anthracene	<0.051				5
1,2-Dichlorobenzene [o-Dichlorobenzene]	<0.094				10
1,3-Dichlorobenzene [m-Dichlorobenzene]	<0.10				10
1,4-Dichlorobenzene [p-Dichlorobenzene]	<0.078				10
3,3'-Dichlorobenzidine	<0.18				5
Diethyl phthalate	<1.4				10
Dimethyl phthalate	<1.4				10
Di-n-butyl phthalate	<1.4				10
2,4-Dinitrotoluene	<0.20				10
2,6-Dinitrotoluene	<0.12				10
Di-n-octyl phthalate	<1.4				10
1,2-Diphenylhydrazine (as Azobenzene)	<0.29				20
Fluoranthene	<0.088				10
Fluorene	<0.095				10
Hexachlorobenzene	<0.097				5

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Hexachlorobutadiene	<01.10				10
Hexachlorocyclopentadiene	<0.22				10
Hexachloroethane	<0.10				20
Indeno(1,2,3-cd)pyrene	<0.10				5
Isophorone	0.16				10
Naphthalene	0.45				10
Nitrobenzene	<0.073				10
N-Nitrosodimethylamine	<0.10				50
N-Nitrosodi-n-propylamine	<0.12				20
N-Nitrosodiphenylamine	<0.14				20
Phenanthrene	<0.13				10
Pyrene	<0.085				10
1,2,4-Trichlorobenzene	<0.076				10

* Indicate units if different from µg/L.

Table 11 for Outfall No.: 001 **Samples are (check one): ☒ Composite ☐ Grab**

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Aldrin	<0.0013				0.01
alpha-BHC [alpha-Hexachlorocyclohexane]	<0.00063				0.05
beta-BHC [beta-Hexachlorocyclohexane]	<0.0013				0.05
gamma-BHC [gamma-Hexachlorocyclohexane]	<0.0034				0.05
delta-BHC [delta-Hexachlorocyclohexane]	<0.0025				0.05
Chlordane	<0.025				0.2
4,4'-DDT	<0.0025				0.02
4,4'-DDE	<0.0013				0.1
4,4'-DDD	<0.0025				0.1
Dieldrin	<0.00063				0.02
Endosulfan I (alpha)	<0.0013				0.01
Endosulfan II (beta)	<0.0013				0.02
Endosulfan sulfate	<0.0056				0.1

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Endrin	<0.0025				0.02
Endrin aldehyde	<0.0059				0.1
Heptachlor	<0.0017				0.01
Heptachlor epoxide	<0.0013				0.01
PCB 1242	<0.044				0.2
PCB 1254	<0.039				0.2
PCB 1221	<0.044				0.2
PCB 1232	<0.044				0.2
PCB 1248	<0.044				0.2
PCB 1260	<0.039				0.2
PCB 1016	<0.044				0.2
Toxaphene	<0.078				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 59-60)

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: N/A

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: Incinerator process data suggests that TCDD compounds are present in waste gas and ash. Note – the waste gas and ash do not discharge into or directly contact any part of the area's or site's wastewater systems.

If **yes** to either Items a **or** b, complete Table 12 as instructed.

Table 12 for Outfall No.: 001 **Samples are (check one): ☒ Composite ☐ Grab**

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	<0.85	<0.85	N/A	N/A	10
1,2,3,7,8-PeCDD	1.0	<3.1	<3.1	N/A	N/A	50
2,3,7,8-HxCDDs	0.1	<2.4	<0.24	N/A	N/A	50
1,2,3,4,6,7,8-HpCDD	0.01	89	0.89	N/A	N/A	50
2,3,7,8-TCDF	0.1	<2.2	<0.22	N/A	N/A	10
1,2,3,7,8-PeCDF	0.03	<2.4	<0.072	N/A	N/A	50
2,3,4,7,8-PeCDF	0.3	<2.4	<0.72	N/A	N/A	50
2,3,7,8-HxCDFs	0.1	<2.4	<0.24	N/A	N/A	50
2,3,4,7,8-HpCDFs	0.01	<2.4	<0.024	N/A	N/A	50
OCDD	0.0003	3800	1.14	N/A	N/A	100
OCDF	0.0003	12	0.0036	N/A	N/A	100
PCB 77	0.0001	<20	<0.002	N/A	N/A	500
PCB 81	0.0003	<20	<0.006	N/A	N/A	500
PCB 126	0.1	<20	<2.0	N/A	N/A	500
PCB 169	0.03	<20	<0.6	N/A	N/A	500
Total				N/A	N/A	

TABLE 13 (HAZARDOUS SUBSTANCES)

Complete Table 13 **is required** for all **external outfalls** as directed below. (Instructions, Pages 60-61)

Are there any pollutants listed in the instructions (pages 55-62) believed present in the discharge?

☒ Yes ☐ No

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): ☒ Composite ☐ Grab**

Pollutant	CASRN	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Analytical Method
Acetaldehyde	75-07-0	<60				8315A
Cresols (all isomers)	1319-77-3	0.15				625.1
Cyclohexane	110-82-7	<1.3				624.1
Diuron	330-54-1	<0.051				632
Formaldehyde	50-00-0	<54				8315A
Isoprene	78-79-5	<0.38				8260D
Methyl Methacrylate	80-62-6	6.5				624.1
Styrene	100-42-5	<0.62				624.1
Triethylamine	121-44-8	<9.4				8270E
Trimethylamine	75-50-3	<12				Lap SOP Amines
Vanadium, Total	7440-62-2	5.4				200.8
Vinyl Acetate	108-05-4	<2.1				624.1
Xylenes, Total	1330-20-7	<1.2				624.1

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 4.0: RECEIVING WATERS

This worksheet **is required** for all TPDES permit applications.

Item 1. Domestic Drinking Water Supply (Instructions, Page 80)

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:

1. The legal name of the owner of the drinking water supply intake: Click to enter text.
2. 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.

Item 2. Discharge Into Tidally Influenced Waters (Instructions, Page 80)

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: 1,250 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: N/A

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: N/A

Item 3. Classified Segment (Instructions, Page 80)

The discharge is/will be directly into (or within 300 feet of) a classified segment.

☒ Yes ☐ No

If **yes**, stop here and do not 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.

Item 4. Description of Immediate Receiving Waters (Instructions, Page 80)

a. Name of the immediate receiving waters: N/A

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:

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.

Item 5. General Characteristics of Water Body (Instructions, Page 81)

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: N/A

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: N/A

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

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 4.1: WATERBODY PHYSICAL CHARACTERISTICS

The following information **is required** for new applications, EPA-designated Major facilities, and major amendment applications requesting to add an outfall if the receiving waters are perennial or intermittent with perennial pools (including impoundments) for a TDPES permit.

Complete the transects downstream of the existing or proposed discharges.

Item 1. Data Collection (Instructions, Page 82)

a. Date of study: Not Applicable; discharge is directly to the Sabine River, which is a classified segment (0501) per Appendix C of 30 TAC 307.10 Time of study: Click to enter text.

Waterbody name: Click to enter text.

General location: Click to enter text.

b. Type of stream upstream of an existing discharge or downstream of a proposed discharge (check only one):

☐ perennial ☐ intermittent with perennial pools ☐ impoundment

c. No. of defined stream bends:

Well: Click to enter text. Moderately: Click to enter text. Poorly: Click to enter text.

d. No. of riffles: Click to enter text.

e. Evidence of flow fluctuations (check one):

☐ Minor ☐ Moderate ☐ Severe

f. Provide the observed stream uses and where there is evidence of channel obstructions/modifications: Click to enter text.

g. Complete the following table with information regarding the transect measurements.

Stream Transect Data

Transect Location	Habitat Type*	Water Surface Width (ft)	Stream Depths (ft)**								

Transect Location	Habitat Type*	Water Surface Width (ft)	Stream Depths (ft)**								

* riffle, run, glide, or pool
** channel bed to water surface

Item 2. Summarize Measurements (Instructions, Page 83)

Provide the following information regarding the transect measurements:

Streambed slope of entire reach (from USGS map in ft. /ft.): Click to enter text.

Approximate drainage area above the most downstream transect from USGS map or county highway map (square miles): Click to enter text.

Length of stream evaluated (ft): Click to enter text.

Number of lateral transects made: Click to enter text.

Average stream width (ft): Click to enter text.

Average stream depth (ft): Click to enter text.

Average stream velocity (ft/sec): Click to enter text.

Instantaneous stream flow (ft^3/sec): Click to enter text.

Indicate flow measurement method (VERY IMPORTANT – type of meter, floating chip timed over a fixed distance, etc.): Click to enter text.

Flow fluctuations (i.e., minor, moderate, or severe): Click to enter text.

Size of pools (i.e., large, small, moderate, or none): Click to enter text.

Maximum pool depth (ft): Click to enter text.

Total number of stream bends: Click to enter text.

Number well defined: Click to enter text.

Number moderately defined: Click to enter text.

Number poorly defined: Click to enter text.

Total number of riffles: Click to enter text.

INDUSTRIAL WASTEWATER PERMIT APPLICATION 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.

Item 1. Sewage Sludge Solids Management Plan (Instructions, Page 84)

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:** N/A

Item 2. Sewage Sludge Management and Disposal (Instructions, Page 84)

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: N/A

b. Provide the following information for each disposal site:

Disposal site name: (1) Waste Management or (2) Chemical Waste Management

TCEQ Permit/Registration Number: (1) MSW H2242A / (2) LA000777201

County where disposal site is located: (1) Newton County, TX / (2) Calcsieu Parish, LA

c. Method of sewage sludge transportation:

☒ truck ☐ train ☐ pipe ☐ other: Click to enter text.

TCEQ Hauler Registration Number: RN23833

d. Sludge is transported as a:

☐ liquid ☒ semi-liquid ☐ semi-solid ☐ solid

e. Purpose of land application: ☐ reclamation ☐ soil conditioning ☒ N/A

f. 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: N/A – plant generated sewage sludge is solidified at the disposal facility and directly landfilled. There is no further treatment.

Item 3. Authorization for Sewage Sludge Disposal (Instructions, Page 85)

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: N/A

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.

INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 7.0: STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES

This worksheet **is required** for all TPDES permit applications requesting individual permit coverage for discharges consisting of **either**: 1) solely of stormwater discharges associated with industrial activities, as defined in *40 CFR § 122.26(b)(14)(i-xi)*, **or** 2) stormwater discharges associated with industrial activities and any of the listed allowable non-stormwater discharges, as defined in the MSGP (TXR05000), Part II, Section A, Item 6.

Discharges of stormwater as defined in *40 CFR § 122.26 (b)(13)* are not required to obtain authorization under a TPDES permit (see exceptions at *40 CFR §§ 122.26(a)(1)* and *(9)*). Authorization for discharge may be required from a local municipal separate storm sewer system.

Item 1. Applicability (Instructions, Page 89)

Do discharges from any of the existing/proposed outfalls consist either 1) solely of stormwater discharges associated with industrial activities **or** 2) stormwater discharges associated with industrial activities and any of the allowable non-stormwater discharges?

☒ Yes ☐ No

If **no**, stop here. If **yes**, proceed as directed.

Item 2. Stormwater Coverage (Instructions, Page 89)

List each existing/proposed stormwater outfall at the facility and indicate which type of authorization covers or is proposed to cover discharges.

Authorization Coverage

Outfall	Authorization under MSGP	Authorized Under Individual Permit
001	☐	☒ Discharges to Sabine River
101	☐	☒ Internal non-contact cooling water & process wastewater Outfall
201	☐	☒ Internal process wastewater Outfall
301	☐	☒ Internal Domestic wastewater Outfall
002	☒ TXR05FG09	☐
003	☒ TXR05FG09	☐
004	☒ TXR05FG09	☐
005	☒ TXR05FG09	☐
006	☒ TXR05FG09	☐
007	☒ TXR05FG09	☐

Outfall	Authorization under MSGP	Authorized Under Individual Permit
008	☒ TXR05FG09	☐

If **all** existing/proposed outfalls which discharge stormwater associated with industrial activities (and any of the allowable non-stormwater discharges) are **authorized under the MSGP**, **stop** here.

If **seeking authorization** for any outfalls which discharge stormwater associated with industrial activities (and any of the allowable non-stormwater discharges) **under an individual permit**, **proceed**.

NOTE: The following information is required for each existing/proposed stormwater outfall for which the facility is seeking individual permit authorization under this application

Item 3. Site Map (Instructions, Page 90)

Attach a site map or maps (drawn to scale) of the entire facility with the following information.

- the location of each stormwater outfall to be covered by the permit
- an outline of the drainage area that is within the facility's boundary and that contributes stormwater to each outfall to be covered by the permit
- connections or discharge points to municipal separate storm sewer systems
- locations of all structures (e.g. buildings, garages, storage tanks)
- structural control devices that are designed to reduce pollution in discharges of stormwater associated with industrial activities
- process wastewater treatment units (including ponds)
- bag house and other air treatment units exposed to stormwater (stormwater runoff, snow melt runoff, and surface runoff and drainage)
- landfills; scrapyards; surface water bodies (including wetlands)
- vehicle and equipment maintenance areas
- physical features of the site that may influence discharges of stormwater associated with industrial activities or contribute a dry weather flow
- locations where spills or leaks of reportable quality (as defined in *30 TAC § 327.4*) have occurred during the three years before this application was submitted to obtain coverage under an individual permit
- processing areas, storage areas, material loading/unloading areas, and other locations where significant materials are exposed to stormwater (stormwater runoff, snow melt runoff, and surface runoff and drainage)

☐ Check the box to confirm all above information was provided on the facility site map(s).

Attachment: N/A

Item 4. Facility/Site Information (Instructions, Page 90)

a. Provide the area of impervious surface and the total area drained by each stormwater outfall requested for authorization by this permit application.

Impervious Surfaces

Outfall	Area of Impervious Surface (include units)	Total Area Drained (include units)

b. Provide the following local area rainfall information and the source of the information.

Wettest month: Click to enter text.

Average rainfall for wettest month (total inches): Click to enter text.

25-year, 24-hour rainfall (inches): Click to enter text.

Source: Click to enter text.

c. Attach an inventory, or list, of materials currently handled at the facility that may be exposed to precipitation. **Attachment:** Click to enter text.

d. Attach narrative descriptions of the industrial processes and activities involving the materials in the above-listed inventory that occur outdoors or in some manner that may result in exposure of the materials to precipitation or runoff (see instructions for guidance). **Attachment:** Click to enter text.

e. Describe any BMPs and controls the facility uses/proposes to prevent or effectively reduce pollution in stormwater discharges from the facility: Click to enter text.

Item 5. Pollutant Analysis (Instructions, Page 91)

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): Click to enter text.

b. ☐ Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.

c. Complete Table 17 as directed on page 92 of the Instructions.

Table 17 for Outfall No.: Click to enter text.

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)
pH (standard units)	(max)	—	(min)	—		—
Total suspended solids						—

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)
Chemical oxygen demand						—
Total organic carbon						—
Oil and grease						—
Arsenic, total						0.0005
Barium, total						0.003
Cadmium, total						0.001
Chromium, total						0.003
Chromium, trivalent						—
Chromium, hexavalent						0.003
Copper, total						0.002
Lead, total						0.0005
Mercury, total						0.000005
Nickel, total						0.002
Selenium, total						0.005
Silver, total						0.0005
Zinc, total						0.005

* Taken during first 30 minutes of storm event

** Flow-weighted composite sample

d. Complete Table 18 as directed on pages 92-94 of the Instructions.

Table 18 for Outfall No.: Click to enter text.

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled

* Taken during first 30 minutes of storm event

** Flow-weighted composite sample

Attachment: Click to enter text.

Item 6. Storm Event Data (Instructions, Page 93)

Provide the following data for the storm event(s) which resulted in the maximum values for the analytical data submitted:

Date of storm event: Click to enter text.

Duration of storm event (minutes): Click to enter text.

Total rainfall during storm event (inches): Click to enter text.

Number of hours the between beginning of the storm measured and the end of the previous measurable storm event (hours): Click to enter text.

Maximum flow rate during rain event (gallons/minute): Click to enter text.

Total stormwater flow from rain event (gallons): Click to enter text.

Provide a description of the method of flow measurement or estimate:

5/8/2025

INVISTA
Orange Site Wastewater System

General Overview

The Orange facility operated by INV Nylon Chemicals Americas, LLC (INVISTA) consists of process areas and tank farms leased from the land owner, The Dow Chemical Company (TDCC) – Sabine River Operations Facility. INVISTA manufactures and distributes Hexamethylenediamine (HMD), and other chemical intermediates.

TDCC owns and operates the wastewater treatment facility (WWTF) for the SRW Site. INVISTA discharges process wastewater via various header systems and other wastewater conveyance systems (as described below) to the WWTF.

The wastewater conveyance system (WWCS), which is owned by TDCC, consists of the East Conduit and a closed-loop cooling water return system (CWRS). A block flow diagram of the WWCS is presented in Figure 1.

The East Conduit is a segment of the WWCS that is isolated from the CWRS by a dam as shown in Figure 1. The East Conduit aggregates streams from the INVISTA laboratory (see Section 2) along with TDCC wastewaters prior to these streams flowing to the WWTF. At the end of the open channel flow, a concrete mixing cell is used to monitor and adjust pH for the aggregated wastewater flow. TDCC operates and maintains the mixing cell and pH control system.

INVISTA discharges various streams, including stormwater, non-contact cooling water, boiler water blowdown, one-pass cooling water, and steam condensate to the CWRS. On an unplanned basis, discharges to the CWRS may contain trace amounts of chemicals from equipment leaks, minor spills, contaminated condensate, etc., resulting from upsets in site operations. INVISTA uses best management practices, pollution prevention techniques, and controls to minimize and manage unplanned discharges.

1. Manufacturing Areas

1.1. Adiponitrile

Adiponitrile (ADN) is an intermediate used in the manufacture of nylon 6, 6. It is produced by reacting butadiene (BD) and hydrogen cyanide (HCN) to form an intermediate pentenenitrile (PN), which in turn was reacted with additional HCN to produce crude ADN. The crude ADN was fed to the refining building to produce refined ADN. The ADN production area consisted of the following operating units: HCN, ADN Synthesis and Refining, and a Natural Gas Plant. The ADN production units are currently out of service, air gapped, and being cleaned as of 5/7/2025.

1.1.1. Adiponitrile (ADN) Synthesis and Refining

This manufacturing equipment is cleaned and out of service, the remaining process equipment in the ADN process area is entirely enclosed by concrete curbing that segregated wastewater within the process area from water outside of the process area. Wastewater within the curbed process area was transferred to the NAS Tank. Organics were recovered from the wastewater in the NAS Tank, and the wastewater was disposed of onsite via UIC wells. A closed organic funnel and drain header was used primarily to drain concentrated organics from equipment before cleaning and to purge sample points for organic recovery. This material collected in area organic sumps and was pumped to the waste treatment organic system where the organics were separated from any wastewater. Wastewater from this system is sent to the NAS Tank for UIC disposal. Organics were recycled through the Wet Organic Recovery Column (WORC) System in ADN Refining. Wastewater was managed in the following sumps that are now out of service:

Building/Area	Wastewater Unit
3040	NE Aqueous Sump
3040	NW Aqueous Sump
3045	Synthesis Tank Farm Aqueous Sump
3050	Aqueous Sump
3055	Refining Tank Farm Aqueous Sump
3040	SW Organic Sump
3040	SE Organic Sump
3040	NW Organic Sump
3040	NE Organic Sump
3045	Synthesis Tank Farm Organic Sump
3050	Organic Sump
3055	Refining Tank Farm Organic Sump

3080	North Organic Sump
3080	South Organic Sump
3080	North Aqueous Sump
3080	South Aqueous Sump
3080	Emergency Water Sump

Wastewater within the curbed process areas or tank farm, but not routed to the dedicated funnel system, was recovered in the aqueous sumps system. This system collected and transfered all material to the NAS Tank. From here, wastewater was disposed of via UIC wells.

As of 5/7/2025, the North Diversion Basin is part of the unit process containment that is currently being cleaned for closure. The basin system contents were typically pumped into the waste treatment area for UIC disposal. There are certain circumstances where the basin liquid contents were be trucked to the Shell Pit or directly transferred to the WWCS, both require sample analysis and environmental approval prior to starting transfer.

Material that collects outside the enclosed process area gravity drains to area EA sumps. The contents of those sumps are vacuumed and trucked to the Shell Pit, waste treatment for UIC disposal, or may be drained to the CWRS based on testing results. There are two EA sumps in the ADN area in the northeast corner of the 3040 building and the northwest corner of the 3050 building. There are multiple drains throughout the area, including in the tank farms, that feed into this system.

1.1.2. ADN Tank Farms

The tank farm had an oil/water decanter system. Water that was separated from the oil by decantation leaves the bottom of the decanter and discharged into the 3045 Tank Farm aqueous trench.

1.2. Hexamethylenediamine, and Utilities (HPU)

1.2.1. Hexamethylenediamine (HMD) and Utilities

HMD is produced by hydrogenation of ADN in the presence of ammonia and hydrogen in a fixed catalyst bed. Ammonia is added to absorb the exothermic heat of the reaction and to suppress byproduct formation. The HMD is then refined through a series of distillation columns and loaded from storage tanks into railcars, barges, portable tanks (ISO containers), and trucks for shipment.

The HMD manufacturing facilities consist of: a synthesis unit, Building 258, which contains the conversion step and the ammonia recycle step of the process; a refining unit, Building 261, that consists of distillation columns which separate the byproducts from the purified product; a storage/truck loading area for byproducts and waste, Building 517; Crude HMD storage, Building 233, for feed to refining; and Refined HMD storage/railcar loading, Building 317.

Wastewater from the 311 Tank Farm Area containments are managed within the HMD Area. The wastewater is sampled and analyzed and either released to ditches that drain to the WWTF or is collected by vacuum truck for appropriate disposal based on sampling results.

Wastewaters are generated by noncontact operations and other discharges such as minor spills and leaks, unrecovered condensate, stormwater, wash-down solutions, cooling water relief vent discharges, 317 scrubbing water, and vacuum steam jets off of process equipment. Most wastewater is collected in sumps and trenches prior to discharge into the alkaline waste header and ultimate discharge to the WWTF. Below is a table of discharges to the alkaline waste header.

Building/Area	**Wastewater Unit**
258	B258 Sump
261	B261 Sump
317	B317 Spill Containment Sump
317	B317 /Railcar HMD Loading Sump
317	B317 Pump Pad Sump
317	B317 Vent Scrubber
317	Runoff Water from Railcar Loading
517	B517 Sump
233	D1 and D2 Sump
233, 317	B568 Sump (alternate routing)
258	LPA Catch Tank

Closed-loop cooling water is used in Buildings 258, 261, and 517 in several heat exchangers. The cooling water is discharged into the CWRS. Steam condensate is also discharged to the CWRS under certain conditions, such as high conductivity or high level.

Below is a table of discharges to the CWRS from HMD.

Building /Area	**Wastewater Unit**
258	Fresh Water Sump B258

261	B261 Cooling Water
258	B258 Steam Condensate
261	B261 Steam Condensate
261	Column Condensate
261	Fresh Water Strainer Backflush
261	CHE River Water Strainer Backflush
517	River Water Strainer Backflush to Road Ditch
258, 261	River Water/Fresh Water Return
233	Crude HMD Tank Dike (not concrete)
317	Runoff Water from Railcar Loading
261	CHE Aux Cooler Water Return
517	D17/Process Drain/E Tails Coolers Water Return
258	1038 Tank Dike Drain
258	CRU Cooling Water Return

Wastewaters associated with Boilers 5 and 7, including the flash pot blowdown to the CWRS, and process equipment surrounded by curbing which collects minor spills, leaks, and stormwater, are collected by vacuum truck, sampled and analyzed, and transported to the Shell Pit. Other stormwaters are collected in trenches outside the contained area and discharge to the CWRS.

2. Laboratories

Wastewater from one on-site laboratory is aggregated with other wastewater in the East Conduit. Sumps in Building 5 are used to collect laboratory wastewater that is then routed to the East Conduit, which leads to the WWTF. The Building 5 sump also collected wastewater from a TDCC laboratory, but is no longer in use by INVISTA.. The laboratory wastewater consists of sink drains from glassware cleaning, hood drains, and other pilot-scale equipment discharges associated with quality control and research and development activities. All other laboratory wastes generated are placed in containers and disposed of offsite at an approved TSDF.

3. De Minimis Losses

De minimis losses of hazardous waste, commercial chemical products, or chemical intermediates listed in 40 CFR § 261.31 through 261.33 may be inadvertently released to the WWCS, which encompasses the East Conduit and CWRS, and/or WWTF, as per 40 CFR § 261.3(a)(2)(iv)(D).

Additional Responses to Technical Report 1.0 – Industrial

Item 1. Facility/Site Information

a. Describe the type of activity and general nature of your business.

The Dow Sabine River Operations (SRO) facility is owned and operated by The Dow Chemical Company (Dow). INVISTA S.à r.l. (INVISTA) and Arcwood are co-tenants on the facility. Dow manufactures and distributes Ethylene and Ethylene Copolymers, as well as other manufacturing intermediates under SIC Codes 2869 and 2821. INVISTA manufactures and distributes Hexamethylene Diamine (HMD) as well as other manufacturing intermediates under SIC Code 2869. INVISTA had previously manufactured Adipic Acid and Adiponitrile (ADN) and associated intermediates, but those two process areas have been shut down due to business needs and currently remain idled.

Electrical power (SIC Code 4911) and/or steam are produced on-site for use in the manufacturing process using Dow owned Co-generation facilities and boilers. Excess electricity is commercially sold. INVISTA also produces steam from boilers. Dow generates instrument air via stationery and/or temporary, portable air compressors. Potable water is produced by Dow via on-site surface water treatment of Sabine River Authority water with well water as a backup.

A permitted hazardous waste incinerator owned by Arcwood Environmental (Arcwood) is used to burn site-generated waste, as well as off-site transfers of waste from other Arcwood facilities.

As of the submittal of this permit renewal, OLIPDP II, LLC owns, and Hackberry Management maintains, the two oil/natural gas wells (SIC Code 1311) that are installed east of Outfall 001.

b. Describe the wastewater-generating processes.

The site generates wastewater from production units owned by Dow and INVISTA using feedstocks of ammonia, methane, ethane, and propane. Sabine River Operations (SRO) manufactures principal intermediate product lines: ethylene; and ethylene copolymers owned by Dow and a Nylon intermediate: hexamethylenediamine (HMD) owned by INVISTA.

A Dow permitted hazardous waste incinerator is used to burn Dow generated waste as well as on-site waste generated by INVISTA.

Wastewater is generated by the following activities with the owner noted:

- Adipic Acid / Nitric Acid Production (INVISTA) – currently idled
- Cyclohexane Oxidation (INVISTA) – currently idled
- Hexamethylene Diamine (HMD) Production (INVISTA)
- Adiponitrile (ADN) Production (INVISTA) – currently idled
- HCN Production (INVISTA) – currently idled
- ADN Catalyst Production (INVISTA) – currently idled
- Ethylene Production (Dow)
- Low Density Polyethylene Production (Dow)
- Ethylene Copolymer Specialties (Dow)
- Air Compression (Dow)
- Boiler Blowdown/Condensate (Dow, INVISTA)
- Cooling Tower Systems (Dow, Arcwood)
- Raw Water Clarification and Demineralization Regeneration (Dow)
- Storm Water (Dow, INVISTA, Arcwood, OLIPDP II)
- Sanitary Treatment Effluent (Dow)
- Laboratory/Pilot Plant Effluents (Dow, INVISTA)

· General Construction Activities (Dow, INVISTA, Arcwood, & OLIPDP II)

Process wastewater from the Adipic Acid and ADN process areas was no longer generated by April 2016 and January 2024, in the two respective areas.

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

RAW MATERIALS

Information on Raw Materials is provided under separate cover as Confidential Business Information

INTERMEDIATES

(May be used on-site or sold as product)

Chemical	CAS #
6-Aminohexanenitrile	432-74-8
BHMT Amine	68411-90-5
DCH Amine	694-83-7
Heavy Aromatic Distillate	7891-79-6
HMI Imine	111-49-9
Light Aromatic Distillate	7891-79-9
Mixed C4 Hydrocarbons	8956-54-7
Propylene	115-07-1

PRODUCTS

Chemical	CAS #
Adiponitrile	111-69-3
Low Density Polyethylene (Ethylene Copolymer)	26375-31-5
Ethylene	74-85-1
Ethylene/N-Butyl Acrylate Copolymer	25750-84-9
Hexamethylenediamine	124-09-4

Confidential Business Information

Additional Responses to Technical Report 1.0 – Industrial

Item 1. Facility/Site Information

C. Provide a list of raw materials, major intermediates, and products handled at your facility.

RAW MATERIALS

Chemical	CAS #
A4V4 Oil	64741-88-4
Acetic Acid	4-19-7
Acetone	67-64-1
Acrylic Acid	79-10-7
Ammonia	766-41-7
Butyl Acrylate	141-32-2
Butyl Methacrylate	97-88-1
Butylated Hydroxytoluene	128-37-0
Calcium Stearate Emulsion	Proprietary
Carbon Monoxide	630-08-0
Chlorobenzene	108-90-7
Cresol	13139-77-3
Dimethyl Sulfide	624-92-0
Distillates, Light	64742-47-8
Ethane	74-84-9
Glycidyl Methacrylate	106-91-2
Isobutyl Acrylate	106-63-8
Isopropanol	67-63-0
Monoethyl Maleate	3990-03-2
Methyacrylic Acid	79-41-4
Methane	74-82-8
Methanol	67-56-1
Methyl Acrylate	96-33-3
Mineral Spirits	64742-47-8
Octadecyl 3-propionate	2082-79-3
Oleic Acid	112-80-1
Petroleum Distillates	
Phenothiazine	92-84-2
Peroctoate Initiator	3006-82-4
Peroxyacetate Initiator	107-71-1
Peroxydicarbonate Initiator	19910-65-7
Peroxypivalate Initiator	927-07-1
Polyethylene Glycol	25322-68-3
Propane	74-98-6
Sodium Hydroxide	1310-73-2
Stearic Acid	57-11-4
t-Butanol	75-65-0
Peroxyacetate Initiator	927-07-1
Tris (nonylphenyl) phosphite	26523-78-4
Vinyl Acetate	108-05-4
White Oil	8042-47-5
Zinc Acetate	557-34-6
Zinc Oxide	1314-13-2
(a) Adiponitrile	11-69-3
(a) Ethylene	74-85-1
(a) Hydrogen	1333-74-0
(a) Propylene	115-07-1

(a) Also a product

Item 2. Treatment System

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.

Oil & grease recovery (e.g., API separators, oil decant sumps, etc.) and floating solids removal (e.g., pellet separators, hydrasieves, etc.) equipment is provided at several locations within the various plant production areas and within the recirculated cooling water system.

Domestic wastewater undergoes solids removal and anaerobic biodegradation, and the effluent is chlorinated and temporarily held in a contact sump, prior to being pumped and discharged into the cooling water reservoir system via monitored Outfall 301. Generated sludge is periodically removed from the Digestor and is transported off-site using an approved sludge hauler for disposal in a municipal landfill.

Wastewater associated with the freshwater clarifier blowdown and cooling tower blowdown all undergo solids settling in an isolated section of the cooling water reservoir system prior to entering the recirculated cooling water system and/or the wastewater treatment surface impoundment system.

The closed-loop cooling water and reservoir storage system (CCWS) has been designed to recirculate the non-contact cooling water and reuse the aforementioned wastewater. Most storm water is also directed to wood-lined ditch conveyance systems and returned to the reservoirs. Raw water that is purchased from the Sabine River Authority can be used as additional make-up water in the CCWS. Discharge from the recirculated cooling water and reservoir system is done on an intermittent basis via monitored Outfall 101.

Upstream of Outfall 201, the wastewater treatment processes include: oil & grease recovery, floating solids recovery, and neutralization, followed by treatment in a series of surface impoundments. Specifically, the ethylene area production unit's wastewater treatment and collection system include collection piping, sumps, tanks, and pumps. Some of the specific equipment includes an Acid Gas Treating Blowdown separator, tar box and replacement, quench settler, dissolved air flotation unit, API separator, storm water collection tanks, surge tanks, and stream stripper system installed upstream of the surface impoundment system. The Ethylene Copolymers production unit's wastewater treatment and collection system includes collection piping, sumps, tanks, and pumps. Some of the specific equipment includes a caustic scrubber, water collection/surge tanks and sumps, emergency spill diversion/collection tank, pellet collector hydrasieves, neutralization sumps, and an oil recovery Decant tank. Neutralization of wastewater streams within the process areas is typically done using either sodium hydroxide or sulfuric acid depending on the wastewater's pH. Specific details of the typical wastewater treatment processes within the INVISTA process areas can be found in Attachment TR_INVISTA_Desc.

The wastewater treatment surface impoundments include three anaerobic/anoxic biological treatment impoundments followed by four facultative/aerobic biological treatment impoundments. The terms anaerobic, anoxic, facultative, and aerobic are used in a general sense to help describe the desired bacterial population present within each impoundment. A 40% sodium nitrate solution is added on an as-needed basis to the anaerobic/anoxic ponds to supplement the existing nitrate source. Nitrate serves as an oxygen source for the anoxic biological reaction and increases organic removal efficiency of the system and reduces the organic load to the downstream aerobic biological treatment units. Pure oxygen and/or a hydrogen peroxide solution are added on an as-needed basis to the facultative/aerobic ponds. These oxygen sources supplement the oxygen produced from algae

growth in the ponds. Oxygen is needed for aerobic biological growth, which is necessary for degradation of BOD and control of the aerobic microorganism population. Nutrients, typically in the form of ammonium hydroxide or solid urea (Nitrogen sources) and Phosphoric Acid (Phosphorus source), are added on an as-needed basis throughout the system to maintain proper Carbon-Nitrogen-Phosphorus balances necessary to sustain the microorganism population. Adjustment of pH within the treatment system is done on an as-needed basis, typically using either Sodium Hydroxide or Hydrochloric Acid. A continuous pH monitoring and control system using CO2 is installed at the Outfall 201 discharge location. Cationic polymers (e.g., ChemTreat PG-906 or P846E) are used on an as-needed basis to help control algae growth and aid in solids settling. An anti-foam solution (ChemTreat CL-240) is injected at the Outfall discharge on an as-needed basis.

The wastewater discharges from Outfalls 101 and 201 combine in a canal that is used to convey the waters to Outfall 001, which discharges directly into the Sabine River.

ATTACHMENT: TR_Item5b

Dow Process Areas
COOLING WATER
TREATMENT CHEMICALS

TPDES Permit No. WQ0000475000

Unit	Chemical	Manufacturers Product Identification Number	Use	Chemical Composition (wt %)	CAS #	Classification	Aquatic Toxicity	Half-life (Days)	Estimated Max Product Concentration in Blowdown (mg/l)	Frequency of Use
Cogen BD = 200 gpm	ChemTreat P-873L	P-873L	Coagulant	Polydimethyldiallylammonium chloride (10-30%)	26062-79-3	Non-persistent	*Ceriodaphnia dubia* 48hr LC50 = 0.473 mg/L Rainbow Trout 96hr LC50 = 0.60 mg/L *Pimehales promelas* 96hr LC50 = 2.253 mg/L	UNK	<1	Continuous
	ChemTreat FlexPro Plus CL-5688	CL-5688	Corrosion Inhibitor	2-Butenedioic acid (Z)-, homopolymer and 2-butenedioic acid (5-10%)	26099-09-2	Non-persistent	Fathead minnow 96hr LC50 >10,000 mg/L *Ceriodaphnia dubia* 48hr LC50 = 3,789 mg/L	UNK	50	Continuous
	12.5% Sodium Hypochlorite (Bleach%)	Dixichlor Max	Biocide	Sodium hypochlorite (10%) Sodium chloride (7-8%) Sodium hydroxide (0.5-2%) Water (Remainder)	7681-52-9 7647-14-5 1310-73-2	Non-persistent persistent as salt Non-persistent Non-persistent	*Daphnia magna* 24hr. LC50 >500 mg/L Zebra fish Static 24hr. LC50 >500 mg/l	60	0.5 (free chlorine)	Continuous
	Chemtreat CL-240	CL-240	Anti-foam	No hazardous ingredients as defined in 29CFR1910.1200	Proprietary	Non-persistent	Fathead minnow 96hr LC50 = 8600 mg/L *Daphnia magna* 48h LC50 = 6000 mg/L Sheepshead minnow 96hr static = > 1000 mg/L Mysid shrimp 48hr static = >1000 mg/L	UNK	<2	Continuous
	Chemtreat CL-280	CL-280	Corrosion Inhibitor	Sodium tetraborate pentahydrate (1-5%) Sodium nitrite (10-30)	1330-43-4 7632-00-0	non-persistent non-persistent	Fathead minnow 96hr LC50 = 658.9 mg/L Ceriodaphnia dubia 48hr static = 500 mg/L	UNK	4000	Continuous
Ethylene Copolymers Units BD = 20 gpm	Chemtreat CL-280	CL-280	Corrosion Inhibitor	Sodium tetraborate pentahydrate (1-10) Sodium nitrite (5-25)	1330-43-4 7632-00-0	Non-persistent Non-persistent	Fathead minnow 96hr LC50 = 658.9 mg/L Ceriodaphnia dubia 48hr static = 500 mg/L	UNK	4000	Continuous
	ChemTreat CL-4816	CL4816	Corrosion Inhibitor	2-Phosphono-1,2,4-butane tricarboxylic acid (1-5%) Zinc chloride (1-5%) Sodium hydroxide (10-30%) Tolyltriazole, sodium salt (0.5-1.5%)	37971-36-1 7646-85-7 1310-73-2 64665-57-2	Non-determined Non-determined Non-determined Non-determined	Fathead Minnow 96hr LC50 = 35.4 mg/l Ceriodaphnia dubia 48 hr LC50 = 33 mg/l	UNK	200	Continuous
	ChemTreat CL-206[1]	CL206	Biocide	2-2-Dibromo-3-nitrilopropionamide (20%)	10222-01-2	Non-determined	Daphnia Magna 48hr LC50 = 6.2 mg/L Bluegill Sunfish 96 hr LC50 = 6.5 mg/L Rainbow Trout 96 hr LC50 = 5 mg/L Fathead Minnow 96 hr LC50 = 6.8 mg/L Ceriodaphnia Dubia 48 hr LC50 = 5.733 mg/L Sheepshead Minnow 96 hr LC50 = 7 mg/L	UNK	5	Slug Fed
Site Cooling Water BD = 2,490 gpm	Chemtreat CT-62	CT-62	Corrosion Inhibitor	Zinc Chloride (40-70%)	7646-85-7	Persistent as salt	*Ceriodaphnia dubia* 48hr LC50 = 0.55 mg/L Fathead Minnow 96hr LC50 = 12 mg/L Rainbow Trout 96h LC50 = 1.3 mg/L	UNK	<2	Continuous
	Chemtreat CT-709	CT-709	Corrosion Inhibitor	Tetrapotassium pyrophosphate (40-70%)	7320-34-5	Non-persistent	Fathead minnow 96h LC50 = >1000 mg/L Mysid shrimp 48hr = >1000 mg/L *Ceriodaphnia dubia* 48hr LC50 = 170.8 mg/L	UNK	15	Continuous
	ChemTreat CL-4428	CL-4428	Dispersant	No hazardous ingredients as defined in 29CFR1910.1200	Proprietary	Non-persistent	Fathead minnow 96hr LC50 = 3314 mg/L *Ceriodaphnia dubia* 48hr = 888 mg/L	UNK	15	Continuous
	ChemTreat CL-4512[2]	CL-4512	Dispersant	No ingredients as hazardous to health according to OSHA 29 CFR 1910.1200.	Proprietary	Not determined	*Ceriodaphnia dubia* 48hr LC50 = 1149 mg/L Fathead minnow 96hr LC50 = 615.6 mg/L	UNK	<1	Continuous
	Chlorine Gas	Chlorine	Biocide	Chlorine (100%)	7782-50-5	Non-persistent	96-hr LC50, rainbow trout: 0.132 mg/l	NA	<1	Continuous

Notes:
[1] Replaced CL-2112. Moved to slug fed instead of continuous feed versus previously.
[2] Plan to conduct trial runs in the near future to assess viability.

ATTACHMENT: TR_Item5b

Dow Process Areas
COOLING WATER
TREATMENT CHEMICALS

TPDES Permit No. WQ0000475000

Unit	Chemical	Manufacturers Product Identification Number	Use	Chemical Composition (wt %)	CAS #	Classification	Aquatic Toxicity	Half-life (Days)	Estimated Max Product Concentration in Blowdown (mg/l)	Frequency of Use
SR-1 Ethylene BD = 200 gpm	ChemTreat CT-907	CT-907	Surfactant	Polyethylene glycol mono (octylphenyl) ether (5-10%)	9036-19-5	Non-persistent	Fathead minnow 96hr static = 98.1 mg/L *Ceriodaphnia dubia* 48hr static = 554.8 mg/L Sheepshead minnow 96hr static = 278.4 mg/L Mysid shrimp 48hr static = 83.5 mg/L	UNK	< 1	Continuous
	ChemTreat CL4132	CL4132	Corrosion Inhibitor	Chlorotolyltriazole sodium salt Sodium Hydroxide Sodium Tolyltriazole Other component below reportable levels	202420-04-0 1310-73-2 64665-57-2	No data available	Ceriodaphnia dubia 48 hr LC50 108 mg/L Fathead minnow LC50 96hr = 44.1 mg/L	3 days	15	Continuous
	ChemTreat CL8803	CL8803	Corrosion Inhibitor	Proprietary Zinc Chloride Phosphoric Acid	Proprietary 7646-85-7 7664-38-2	Not Determined	Fathead Minnow 96 hour static LD50 = 267.4 mg/L *Ceriodaphnia Dubia 48hr LC50 = 88.39 mg/L*	3 days	90	Continuous
	ChemTreat CL453	CL453	Biosurfactant	Proprietary aliphatic amide hydrolsates	Proprietary	Not Determined	Ceriodubia 96 hr LD50 = 2.62 mg/L 96 hr LOEC = 4.25 mg/L, 96hr NOEC = 1.7 mg/L Fathead Minnow 96hr LC50 = 2.4 mg/L Rainbow Trout 96hr LC50 = 9.07 mg/L	3 days	118	Shot fed
	ChemTreat CL2212	CL2212	Biocide	Glutaraldehyde	111-30-8	Not Determined	Fathead Minnow 96 hour LC50 = 37.9 mg/L Ceriodaphnia Dubia 48hr LC50 = 15.6 mg/L Bacterial Toxicity 17hr EC10 = 8.8 mg/L Golden Orfe 96hr LC50 = 10 mg/L	2.5 days	100	Shot fed
	ChemTreat CL-2150	CL-2150	Biocide	2-methyl-4-isothiazolin-3-one (0.39%) 5-Chloro-2-methyl-4-isothiazolin-3-one (1.11%)	2682-20-4 26172-55-4	Persistent as salt Persistent as salt	Rainbow Trout 96hr LC50 = 12.6 mg/L Bluegill Sunfish 96h LC50 = 18.6 mg/L *Ceriodaphnia dubia* 48hr EC50 = 10.7 mg/L Sheepshead minnow 96hr static = 70.7 mg/L Mysid shrimp 48hr static LC50 = 46.1 mg/L	2.5 days	100	Shot fed
	ChemTreat CL-241	CL-241	Antifoam	No hazardous ingredients as defined in 29CFR1910.1200	Proprietary	Non-persistent	Fathead minnow 96hr LC50 = 17,200 mg/L *Daphnia magna* 48h LC50 = 12,000 mg/L	UNK	<1	Continuous
	ChemTreat CL-427	CL-427	Silt Cleaner	Hydrogen peroxide (10-30%)	7722-84-1	Non-persistent	Rainbow Trout 96hr LC50 = 37 mg/L Freshwater Snail 96hr LC50 = 66 mg/L *Daphnia magna* 24h EC50 = 28.5 mg/L *Daphnia pulex* 48h LC50 = 9 mg/L Fathead minnow 96hr LC50 = 60.7 mg/L Fathead minnow 48hr LC50 = 148 mg/L	UNK	<1	Continuous
	ChemTreat CL-41	CL-41	Biocide	Sodium bromide (40%)	7647-15-6	Persistent as salt	Rainbow Trout 96hr LC50 = >1000 mg/L Bluegill Sunfish 96h LC50 = >1000 mg/L *Daphnia magna* 48h LC50 = >1000 mg/L Fathead minnow 96hr LC50 = >1000 mg/L *Ceriodaphnia dubia* 48hr LC50 = >1000 mg/L	UNK	<1	Continuous
	Chemtreat CL-1352	CL-1352	Dispersant	No hazardous ingredients as defined in 29CFR1910.1200	Proprietary	Non-persistent	Fathead minnow 96hr LC50 = 806.1 mg/L *Ceriodaphnia dubia* 48hr static = 1414.2 mg/L	UNK	2	Continuous
	ChemTreat P-873L	P-873L	Coagulant	Polydimethyldiallylammonium chloride (10-30%)	26062-79-3	Non-persistent	*Ceriodaphnia dubia* 48hr LC50 = 0.473 mg/L Rainbow Trout 96hr LC50 = 0.60 mg/L *Pimehales promelas* 96hr LC50 = 2.253 mg/L	UNK	<1	Continuous
	ChemTreat CL-4449	CL-4449	Antiscale	2-Phosphono-1,2,4-butane tricarboxylic acid (7-13%) 2-Butenedioic acid (Z)-, homopolymer and 2-butenedioic acid (10-30%)	37971-36-1 26099-09-2	Non-persistent Non-persistent	Not tested	UNK	<10	Continuous
	12.5% Sodium Hypochlorite (Bleach%)	Dixichlor Max	Biocide	Sodium hypochlorite (10%) Sodium chloride (7-8%) Sodium hydroxide (0.5-2%) Water (Remainder)	7681-52-9 7647-14-5 1310-73-2	Non-persistent persistent as salt Non-persistent Non-persistent	*Daphnia magna* 24hr. LC50 >500 mg/L Zebra fish Static 24hr. LC50 >500 mg/l	60	0.5 (free chlorine)	Continuous
	Chlorine Gas	Chlorine	Biocide	Chlorine (100%)	7782-50-5	Non-persistent	96-hr LC50, rainbow trout: 0.132 mg/l	NA	<1	Continuous

Unit	Chemical	Manufacturers Product Identification Number	Use	Chemical Composition (wt %)	CAS #	Aquatic Toxicity	Classification	Half-life (Days)	Estimated Max Product Concentration in Blowdown (mg/l)	Frequency of Use
SR-1 Ethylene Cooling Tower MicroFiltration Project	12.5% Sodium Hypochlorite (Bleach%)	12.5% Sodium Hypchlorite	Biocide; Cleaning Agent	Chlrorine (12%)	7782-50-5	*Atlantic Silverside (Menidia menidia) LC50 .037 mg/L 96 hours*	Non-persistent	UNK	< 1	Periodic Daily
				Sodium Hydroxide (10%)	1310-73-2	Water Flea (ceriodaphnia dubia) EC50 34.59-47.13 mg/L, 48 hours; Western mosquitofish (Gambusia affinis) LC50 125 mg/l, 96 hours	Non-persistent			
				Other (78%)			Non-persistent			
	Citric Acid 50% Solution	50% Citric Acid	pH Adjustment; Cleaning Agent	Citric Acid (49-51%)	77-92-9	*Daphnia magna* 24hr. LC50 1535 mg/L - 24 hour	528 mg O2/g greater than 8 % after 2 days.	UNK	< 1	Periodic Daily
				Water (49-51%)	7732-18-5	Leuciscus idus meanotus - 440 mg/L - 48 hour				
	Sodium Hydroxide (5%-50%)	Caustic (5-50%)	pH Adjustment	Caustic Soda (5-50%)	1310-73-2	45.4: 96h Oncorhynchus mykiss mg/L LC Static	No information listed	UNK	< 1	Periodic Daily
				Sodium Chloride (<1.0%)	7647-14-5					
				Sodium Carbonate (<.2%)	207-838-8	5560-6080: 96 h Lepomis macrochirus mg/L LC50 flow through 6020 - 7070: 96H Lepomis macrochirus mg/L LC60 Static				
				Water	7732-791-2	300: 96H Lepomis macrochirus mg/L LC50 sttic 310 - 1220: 96H Pimephales promelas mg/L LC50 static				
	Sodium Bisulfite Solution	Sodium Bisulfite Solution	Chlorine Scavenger	Sodium Bisulfite (NaHSO3) (15-44%)	7631-90-5	Mosquitofish 240 ppm, 96 hours, LC50	No information listed	UNK	<50	Periodic Daily
				Sodium Sulfite (Na2SO3) (<1%)	7757-83-7					
				Sodium Sulfate (Na2SO4) (<4%)	7757-82-6					
				Water (Balance)	7732-18-5					
	Iron Out	Iron Out (liquid)	Rust/Iron Remover for Microfilter Membrane cleaning	Oxalic Acid (5-10 wt%)	144-62-7	EC50: Daphnia (137.5 mg/L, 48 hours), EC50: Water Flea (Daphnia magna), 125-150 mg/L, 48 hours	No information listed	UNK	<1 for Oxalic Acid	Periodic, Semi-Annually
				1,2 Propanediol (1-5 wt %)	57-55-6	EC50: Daphnia (10000 mg/L, 48 hours); EC50: Water Flea (Daphnia magna), >10000 mg/L, 48 hours; EC50: Fathead minnow, Pimephales promelas, 710 mg/L, 96 hours.			<20 for 1,2 Propanediol	

ATTACHMENT: TR_Item5b

Site Tenant Process Areas
COOLING WATER
TREATMENT CHEMICALS

TPDES Permit No. WQ0000475000

Unit	Chemical	Manufacturers Product Identification Number	Use	Chemical Composition (wt %)	CAS #	Classification	Aquatic Toxicity	Half-life (Days)	Estimated Max Product Concentration in Blowdown (mg/l)	Frequency of Use
Arcwood Incinerator BD = 20 gpm	ChemTreat CT-781	CT-781	Corrosion Inhibitor	Phosphoric acid (10-30%) Zinc Sulfate (10-30%)	7664-38-2 7733-02-0	Non-persistent persistent as salt	*Ceriodaphnia dubia* 48hr LC50 = 1.571 mg/L Fathead Minnow 96hr LC50 = 4.879 mg/L	UNK UNK	27	Continuous
	ChemTreat FlexPro Plus CL-5688	CL-5688	Corrosion Inhibitor	2-Butenedioic acid (Z)-, homopolymer and 2-butenedioic acid (5-10%)	26099-09-2	Non-persistent	Fathead minnow 96hr LC50 >10,000 mg/L *Ceriodaphnia dubia* 48hr LC50 = 3,789 mg/L	UNK	50	Continuous
	ChemTreat CL-4892	CL-4892	Dispersant	Sodium Hydroxide (1-5%) Tolytriazole, sodium salt (3-7%) 1-Hydroxyethylidene-1,1-diphosphonic acid, tetrasodium salt (1-5%)	1310-73-2 64665-57-2 3794-83-0	Persistent as salt Non-persistent Non-persistent	*Daphna magna* 48hr LC50 = 1593 mg/L Fathead Minnow 96hr LC50 = 676 mg/L Mysid Shrimp 24/48hr LC50 = 1410 mg/L	UNK UNK UNK	100	Continuous
	12.5% Sodium Hypochlorite (Bleach%)	Dixichlor Max	Biocide	Sodium hypochlorite (10%) Sodium chloride (7-8%) Sodium hydroxide (0.5-2%) Water (Remainder)	7681-52-9 7647-14-5 1310-73-2	Non-persistent persistent as salt Non-persistent Non-persistent	*Daphnia magna* 24hr. LC50 >500 mg/L Zebra fish Static 24hr. LC50 >500 mg/l	60	0.5 (free chlorine)	Continuous

ATTACHMENT: TR_Item5b

BOILER FEED WATER TREATMENT CHEMICALS

TPDES Permit No. WQ0000475000

Unit	Chemical	Manufacturers Product Identification Number	Use	Chemical Composition (wt %)	CAS #	Aquatic Toxicity	Classification	Half-life (Days)	Estimated Max Product Concentration in Blowdown (mg/l)
Cogen	ChemTreat BL-1285	BL-1285	Oxygen Scavenger	Diethylhydroxylamine (5-10%)	3710-84-7	*Daphnia magna* 48h LC50 = 1306 mg/L Guppies 96h LC50 = 1765 mg/L, neutralized material Fathead Minnow 96h LC50 >10000 mg/L Bacterial toxicity EC50 = 435 mg/L	Non-persistent	UNK	0.3
	ChemTreat BL-1303	BL-1303	Caustic Solution	Sodium Hydroxide (1-5%)	1310-73-2	Not tested	Persistent as salt	UNK	<1
	ChemTreat BL-1559	BL-1559	Neutralizing Amine	3-Methoxypropylamine (10-30%) Cyclohexylamine (10-30%)	5332-73-0 108-91-8	Fathead minnow 96hr static = 659.75 mg/L *Ceriodaphnia dubia* 48hr static = 519.63 mg/L	Non-persistent Non-persistent	UNK	4
	ChemTreat BL-6001	BL6001	Internal Treatment	Sodium Hydroxide (10-20%)	1310-73-2	Not tested	Persistent as salt	UNK	500
	ChemTreat BL-1776	BL1776	Corrosion Inhibitor	Tetrapotassium Pyrophosphate (7-13%)	7320-34-5	Fathead minnow 96hr LC50 = >1000 mg/L Ceriodaphnia dubia 48hr LC50 = >1000 mg/L	Non-persistent	UNK	100
	ChemTreat BL-1793	BL-1793	Phosphate	Sodium phosphate, tribasic (0.5-1.5%) Sodium phosphate, dibasic (0.5-1.5%)	7558-79-4 7601-54-9	Fathead minnow 96hr LC50 = >10000 mg/L Ceriodaphnia dubia 48hr LC50 = >10000 mg/L	Non-persistent	UNK	500
SR-1 Ethylene	ChemTreat BL-1285	BL-1285	Oxygen Scavenger	Diethylhydroxylamine (1-10%)	3710-84-7	*Daphnia magna* 48h LC50 = 1306 mg/L Guppies 96h LC50 = 1765 mg/L, neutralized material Fathead Minnow 96h LC50 >10000 mg/L Bacterial toxicity EC50 = 435 mg/L	Non-persistent	UNK	0.3
	ChemTreat BL-1310	BL-1310	Dilute Caustic	Sodium Hydroxide (1-3%)	1310-73-2	Not tested	Persistent as salt	UNK	250
	ChemTreat BL-1513	BL-1513	Neutralizing Amine	Cyclohexylamine (10-30%) Morpholine (10-30%)	108-91-8 110-91-8	Fathead minnow 96hr static = 354 mg/L Ceriodaphnia dubia 48hr static = 85.4 mg/L	Non-persistent Non-persistent	UNK	4
	ChemTreat BL8401[1]	BL8401	Film Forming Amine	N-Oleyl-1,3-diaminopropane (5-10%) Formic Acid (<5%)	7173-62-8 64-18-6	Mysid Shrimp 96 hr LC50 = 3.9 mg/L Inland Silverside 48 hr LC50 = 2.7 mg/L	Not determined	UNK	<1
	ChemTreat BL-6017	BL-6017	Corrosion Inhibitor	Sodium hydroxide (1-<3%) Other component below reportable levels	1310-73-2 Proprietary	Not tested	Persistent as salt Non-persistent	UNK	100

Notes: [1] Plan to conduct trial runs in the near future to assess viability.

ATTACHMENT: TR_Item5b

Environmental Operations Process Areas
WASTEWATER
TREATMENT CHEMICALS

TPDES Permit No. WQ0000475000

Unit	Chemical	Manufacturers Product Identification Number	Use	Hazardous Chemical Composition (wt %)	CAS #	Classification	Aquatic Toxicity	Half-life (Days)	Frequency of Use	Estimated Max Product Concentration in Outfall (mg/l)
Sanitary Treatment	Chlorine Gas	Chlorine	Biocide	Chlorine (100%)	7782-50-5	Non-persistent	96+H2:H30-hr LC50, rainbow trout: 0.132 mg/l	NA	Continuous as needed	>2.0 (free chlorine)
	12.5% Sodium Hypochlorite (Bleach%)	Dixichlor Max	Biocide	Sodium hypochlorite (10%) Sodium chloride (7-8%) Sodium hydroxide (0.5-2%) Water (Remainder)	7681-52-9 7647-14-5 1310-73-2	Non-persistent Persistent as salt Non-persistent Non-persistent	*Daphnia magna* 24hr. LC50 >500 mg/L Zebra fish Static 24hr. LC50 >500 mg/l	60	Supplement chorine gas injection as needed	>2.0 (free chlorine)
Biopond	Carbon Dioxide	Liquid Carbon Dioxide, Refrigerated	pH Control	Carbon Dioxide (100%)	124-38-9	Non-persistent	Not applicable	NA	Continuous	NA
	Hydrochloric Acid	Hydrochloric Acid, 20° or 22° Baume	pH Control	Hydrogen Chloride (26-37%) Water (Remainder)	7647-01-0 7732-18-5	Persistent as salt	No Aquatic Testing Listed	UNK	Trailer load added as needed (15-90 times per year)	<1
	Sodium Hydroxide[1]	Liquid Caustic Soda (20-50%)	pH Control	Sodium hydroxide (49-51%) Sodium chloride (0-2%) Chloric Acid (<1%) Sodium carbonate (<0.5%)	1310-73-2 7647-14-5 7775-09-9 497-19-8	Persistent as salt Persistent as salt Persistent as salt Persistent as salt	*Ceriodaphnia dubia* 48hr. LC50 = 40.4 mg/L Bluegill fish 96hr LC50 = 1,295 mg/l	UNK	Continuous as needed	<1
	Sulfuric Acid[1]	Sulfuric Acid (77-100%)	pH Control	Sulfuric Acid (70-100%) Water (Remainder)	7664-93-9 7732-18-5	Persistent as salt	Bluegill fish 96hr LC50 = 16 mg/l *Daphnia magna* 48h LC50 >100 mg/L	UNK	Continuous as needed	<1
	NOTE - The Chemicals listed below have previously been utilized within the Biopond system, but are no longer being used at the current time. In the event that they be needed in the future for potential treatment purposes, they remain on the list.									
	Chemtreat CL-240	CL-240	Anti-foam	No hazardous ingredients as defined in 29CFR1910.1200	Proprietary	Non-persistent	Fathead minnow 96hr LC50 = 8600 mg/L *Daphnia magna* 48h LC50 = 6000 mg/L Sheepshead minnow 96hr static = > 1000 mg/L Mysid shrimp 48hr static = >1000 mg/L	UNK	Continuous injection as needed (~0-60 days per year)	<4
	ChemTreat P-846E	P-846E	Water Clarification/Solids Conditioning Agent	2-Propenaide, polymer with N, N, N-trimethyl-2-[(1-oxo-2-propenyl)oxy]ethanaminium (30-60%) Alcohols (C12-14-secondary) ethoxylated (1-5%) Petroleum distillate hydrotreated light (15-40%)	69418-26-4 84133-50-6 64742-47-8	Absorbs to solids Non-persistent Non-persistent	*Ceriodaphnia dubia* 48hr LC50 = 0.123 mg/L Fathead minnow 96hr LC50 = 4.891 mg/L *Daphnia pulex* 48hr LC50 = 0.63 mg/L	UNK	Continuous injection as needed (~0-120 days per year)	<2
	ChemTreat PG-906	PG-906	Water Clarification/Solids Conditioning Agent	Sodium hydroxide (1-5%) Sodium hexametaphosphate (3-7%)	1310-73-2 10124-56-8	Persistent as salt Non-persistent	Not tested	UNK UNK	Continuous injection as needed (~0-120 days per year)	<2
	Ammonium Hydroxide	Aqua Ammonia 20%	Nutrient	Ammonium Hydroxide (100%)	1336-21-6	Non-persistent	Fathead minnow 96hr LC50 = 8.2 mg/L *Daphnia pulex* 48hr LC50 = 0.66 mg/L	Log Pow = -1.14	Trailer load added as needed (0-36 times per year)	<1
	Hydrogen Peroxide	Hydrogen Peroxide 50% Standard	Aerobic bacteria metabolism	Hydrogen Peroxide (50%) Water (Remainder)	7722-84-1 7732-18-6	Non-persistent	Fathead minnow 96hr LC50 = 16.4 mg/L *Daphnia pulex* 48hr LC50 =2.4 mg/L	8-20 (freshwater)	Trailer load added as needed (0-36 times per year)	<1
	Oxygen	Oxygen Refrigerated	Aerobic bacteria metabolism	Oxygen (100%)	7782-44-7	Non-persistent	Not applicable	NA	Continuous injection as needed (`0-365 days per year)	>2.0
	Phosphoric Acid	Phosbrite Coproduct	Nutrient / pH Control	Phosphoric Acid (25-50%) Sulfuric Acid (4-12%) Nitric Acid (1-4%)	7664-38-2 7664-93-9 7697-37-2	Persistent as salt Persistent as salt Persistent as salt	Mosquito fish 96hr LD50 = 138 mg/L	UNK	Trailer load added as needed (0-4 times per year)	<1
	Sodium Nitrate	Sodium Nitrate Solution (40%)	Anoxic bacteria metabolism	Sodium Nitrate (10-50%) Water (Remainder)	7631-99-4 7732-18-6	Persistent as salt	Mosquito fish 96hr LD50 = 6,650 mg/L Bluegill fish 96hr LC50 = 10,000 mg/l	UNK	0-4 Trailer loads per day as needed	<50
	Urea	Urea, Dry	Nutrient	Urea (97.5-99.7%) Methylenediurea (0-2.5%) Biuret (0-1.5%)	57-13-6 13547-174-6 108-19-0	Non-persistent	*Barillius barna* 96hr LC50 = >9,100 mg/L *Daphnia magna* 24h EC50 = >10,000 mg/L	>1 yr	Trailer load added as needed (0-4 times per year)	<1

Notes: [1] Injected upstream of the Biopond system within the process areas for pH control purposes.

Additional Responses to Technical Report 1.0 – Industrial

Item 6. Storm Water Management

There is a potential for storm water runoff to be present in all four of the permitted outfalls.

The recirculating cooling water and reservoir system was designed to collect and reuse storm water as much as possible. Storm water runoff from most of the process areas that does not have much potential to contact any raw materials, intermediates, product, wastes, etc. (e.g., building roofs, parking lots, grass/gravel areas, and street run-off, etc.) is directed into the site's cooling water return conveyance system. Discharge from this system would ultimately occur via Outfall 101.

There are parts of the sanitary system that are tied into area drains where potable water is utilized such as safety showers, etc. that have the potential to collect and drain storm water run-off. As mentioned previously, chlorinated effluent from the sanitary system is discharged via Outfall 301 to the cooling water reservoir system for reuse purposes.

Storm water run-off from the process areas that has the potential to contact any raw materials, intermediates, product, wastes, most tank dike systems, equipment wash down areas, etc. is typically directed into the site's wastewater treatment impoundment system, which is ultimately discharged via Outfall 201. This includes storm water run-off from the B-311 tank farm area where the first flush waters in the drainage system surrounding this area is pumped to the wastewater treatment system.

In addition to receiving the discharges from Outfall 101 and Outfall 201, Outfall 001 also receives storm water run-off associated with the natural gas collection operation located east of the outfall location.

On an unplanned basis, storm water run-off into the recirculated cooling water or sanitary systems may contain trace amounts of chemicals or oil from equipment leaks, spills, contaminated condensate, etc., resulting from upsets in site operations. Dow and all site tenants use best management practices, pollution prevention techniques, and controls to minimize and manage these types of unplanned discharges.

Refer to Attachment TR_INVISTA_Desc for additional details regarding storm water run-off from INVISTA process areas.

In addition to these four outfalls, there are seven storm water only outfalls that are monitored under the Storm Water MSGP conditions and are currently registered under TCEQ Permit ID: TXR05FG09.

Item 7.b. Domestic Sewage, Sewage Sludge, and Septage Management and Disposal

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.
City of Groves WWTP[1] / Sprint Waste Services	WQ0010094004 / RN23833
Port Acres WWTP[1] / Sprint Waste Services	WQ0010364002 / RN23833
City of Groves WWTP[1] / United Rentals	WQ0010094004 / RN25412
City of Beaumont WWTP[1] / United Rentals	WQ0010501020 / RN25412
Gulf Coast Reclamation Ctr WWTP[1] / Johnnie on the Spot, Inc.	WQ0010094004 / RN22348
City of Beaumont WWTP[1] / Johnnie on the Spot, Inc.	WQ0010501020 / RN22348
Chem Waste Mgt[2]– Newton Co. Landfill / Sprint Waste Services	No TPDES Permit / RN23833
Chemical Waste Management Landfill[2] / Sprint Waste Services	LA0054828 / RN23833

[1] Domestic sewage disposal from portable toilets
[2] Domestic sewage sludge disposal from site sanitary treatment system

Technical Report 1.0

Worksheet 2.0 - Pollutant Analysis

Item 1. C. – Contract Laboratory Information

All contracted laboratory analyses associated with the recent SRO TPDES Permit Renewal were coordinated through Eurofins Houston. All of the applicable Worksheet 2.0 Pollutant Analyses listed in Tables 2-13 were performed by Eurofins. Eurofins also analyzed the following chemicals listed in Table 1: Chemical Oxygen Demand, Nitrate-Nitrogen, Total Phosphorus, Sulfate, Chloride, Fluoride, and Total Alkalinity.

Eurofins contact information:

Bethany McDaniel

Senior Project Manager

Eurofins Houston

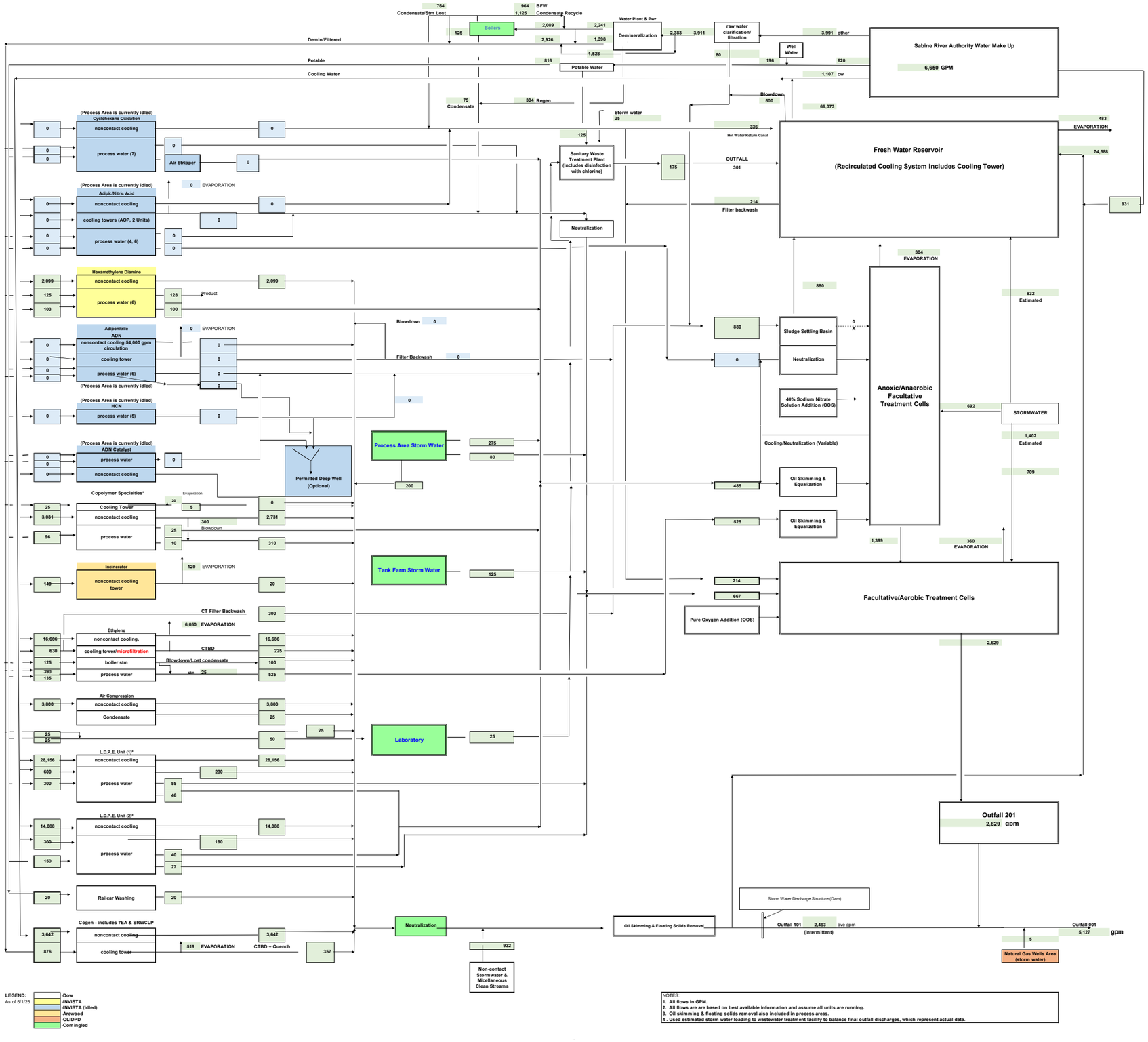
4145 Greenbriar Drive

Stafford, Texas 77477

Phone: 1-713-358-2005

Email: Bethany.McDaniel@ET.EurofinsUS.com

Simplified *Water Balance General Flow Diagram*
(Technical Report 1.0 Item 2.b. Treatment System Water Balance)



LEGEND:
As of 5/1/25

- -Dow
- -INVISTA
- -INVISTA (idled)
- -Arcwood
- -OLIDPD
- -Comingled

NOTES:
1. All flows in GPM.
2. All flows are are based on best available information and assume all units are running.
3. Oil skimming & floating solids removal also included in process areas.
4. Used estimated storm water loading to wastewater treatment facility to balance final outfall discharges, which represent actual data.

TPDES Permit ID. WQ0000475000

Technical Report 1.0

Item No. 4 - Outfall Wastestream Contributions

Outfall 001

Contributing Wastestreams	Volume (MGD)	% of Total Flow
Outfall 101	3.590	48.67
Outfall 201	3.786	51.33
Total	7.376	100.00

Outfall 101

Contributing Wastestreams	Volume (MGD)	% of Total Flow
Non-contact Storm Water & Miscellaneous Clean Streams	0.045	2.32
Non-contact cooling water	1.795	92.31
Compressor and Steam Condensate	0.020	1.02
Boilers and Cooling Towers Blowdown (Including Regen)	0.046	2.34
Filter Backwash	0.008	0.39
Treated Disinfected Sanitary Wastewater (Outfall 301)	0.003	0.16
Sabine River Authority Make-up Water	0.023	1.21
Process Wastewater (Including Contaminated Storm Water)	0.017	0.88
Evaporation	-0.012	-0.63
Total	1.945	100.00

Outfall 201

Contributing Wastestreams	Volume (MGD)	% of Total Flow
Process Wastewater (Including Contaminated Storm Water)	1.869	49.38
Storm Water	2.019	53.32
Cooling Water Ponds Stream	0.000	0.00
Boilers & Cooling Towers Blowdown (Including Regen)	0.546	14.42
Filter Backwash	0.308	8.14
Evaporation	-0.956	-25.26
Total	3.786	100.00

Outfall 301

Contributing Wastestreams	Volume (MGD)	% of Total Flow
Sanitary Wastewater	0.180	83.33
Non-contact Storm Water	0.036	16.67
Total	0.216	100.00

Technical Report 1.0

Item No. 4 - Outfall & Wastewater Characterizations

Outfall 001 discharges directly to the Sabine River and is comprised of storm water runoff and previously monitored effluent from Outfalls 101 and 201. Specific types of wastewaters include process wastewater, recirculated non-contact cooling water, domestic wastewater, utility wastewaters, and storm water via Outfall 101 on an intermittent and flow variable basis; and treated process wastewater, utility wastewater, treated laboratory wastewater, steam condensate, clarifier effluent, domestic wastewater, non-contact cooling water, and storm water via Outfall 201 at a daily average flow not to exceed 16 million gallons per day (MGD).

Domestic wastewater undergoes solids removal and anaerobic biodegradation and the effluent is chlorinated prior to discharging into the cooling water reservoir system via monitored Outfall 301. Wastewaters from the freshwater clarifier blowdown and cooling towers also undergo solids settling prior to entering the cooling water reservoir system. Wastewater that is added or returned to the cooling water reservoir system is reused via the site's closed loop cooling water system. Water from the reservoir system is transferred to the wastewater treatment surface impoundments via pump/filter blowdowns or via a siphon system that is utilized to help maintain reservoir level and proper chloride concentration. Oil and grease recovery and floating solids removal is provided in the system at several locations in the production areas and the cooling water system prior to discharging from the Outfall 101 dam structure and mixing with Outfall 201. Upstream of Outfall 201 wastewater treatment processes include: oil and grease recovery and floating solids removal, air stripping and neutralization, followed by treatment in a series of surface impoundments.

The discharge of process wastewater refers to any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product.

The discharge of treated process wastewater and treated laboratory wastewater is subject to federal effluent limitation guidelines at 40 CFR Part 414 Subpart D, F, G, H, and I, and the discharge of process wastewater from hydrogen cyanide process is regulated under 40 CFR Part 415, Subpart AP.

The discharge of utility wastewater (including, but not limited to, boiler blowdown, cooling tower blowdown & overflow, steam condensate, air compressor condensate, potable water (including freeze bleeds and line flushes), clarifier effluent, non-contact cooling water, air-conditioning condensate, water softener demineralizer regeneration effluent, and emergency firewater wash-down) is not subject to federal effluent limitation guidelines and any technology-based effluent limitations are based on best professional judgement.

Wastewater that is generated by cleanup of spills, leaks, wash down associated with manufacturing activities, including storage and transfer of raw materials, intermediates, products, by-products, equipment wash down and waste products, that meets the definition of process wastewater at 40 CFR 401.11(q) may be treated using the treatment methods described in the permit application and then discharged as process wastewater provided that all effluent limitations and conditions in the permit are complied with.