Technical Package Cover Page

This file contains the following documents:

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

Portada de Paquete Técnico

Este archivo contiene los siguientes documentos:

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

Plain Language Summary Template and Instructions for Texas Pollutant Discharge Elimination System (TPDES) and Texas Land Application (TLAP) Permit Applications

This template is a guide to assist applicant's in developing a plain language summary as required by 30 Texas Administrative Code Chapter 39 Subchapter H. Applicant's may modify the template as necessary to accurately describe their facility as long as the summary includes the following information: (1) the function of the proposed plant or facility; (2) the expected output of the proposed plant or facility; (3) the expected pollutants that may be emitted or discharged by the proposed plant or facility; and (4) how the applicant will control those pollutants, so that the proposed plant will not have an adverse impact on human health or the environment.

Fill in the highlighted areas below to describe your facility and application in plain language. Instructions and examples are provided below. Make any other edits necessary to improve readability or grammar and to comply with the rule requirements.

If you are subject to the alternative language notice requirements in 30 Texas Administrative Code §39.426, **you must provide a translated copy of the completed plain language summary in the appropriate alternative language as part of your application package**. For your convenience, a Spanish template has been provided below.

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS INDUSTRIAL 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 Texas Administrative Code Chapter 39. The information provided in this summary may change during the technical review of the application and are not federal enforceable representations of the permit application.

Syngenta Crop Protection, LLC (CN601235393) Greens Bayou Site (RN100238492) is located at 2239 Haden Road, Houston, Harris County, Texas 77015. Historically, the site manufactured agricultural, specialty, and industrial chemicals. Between 2019-2021, the facility was decommissioned and demolished. The only remaining site operations are groundwater remediation system activities (groundwater recovery and treatment). The Groundwater Remediation Unit (GRU) includes metals removal by chemical precipitation and ion exchange and organics removal by granular activated carbon.

This application is to renew TPDES Permit No. WQ0000749000 to reflect current site conditions. Outfall 001 discharges treated groundwater, laboratory wastewater, and stormwater at a variable flow rate. Groundwater treatment includes carbon absorption and metals removal. Outfalls 002, 003, 004, 005, and 006 discharge stormwater at an intermittent and flow-variable rate. Outfall discharges are expected to contain dissolved and suspended solids, carbonaceous compounds, and metals. Information on other pollutants that may be present in the discharges are contained in Worksheets 2 and 7 of the TPDES application.

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

AGUAS RESIDUALES INDUSTRIALES/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 son representaciones federales exigibles de la solicitud de permiso.

Syngenta Crop Protection, LLC (CN601235393) Greens Bayou Site (RN100238492) se ubicada en 2239 Haden Road, Houston, Condado de Harris, Texas 77015. Históricamente, el sitio fabricaba productos químicos agrícolas, especializados e industriales. Entre 2019 y 2021, la instalación fue desmantelada y demolida. Las únicas operaciones restantes del sitio son las actividades del sistema de remediación de aguas subterráneas (recuperación y tratamiento de aguas subterráneas). La unidad de remediación de aguas subterráneas (GRU) incluye la eliminación de metales mediante precipitación química e intercambio iónico y la eliminación de orgánicos mediante carbón activado granular.

Esta solicitud es para renovar el permiso TPDES no. WQ0000749000 para reflejar las condiciones actuales del emplazamiento. La punta de descarga 001 vierte aguas subterráneas tratadas, aguas residuales de laboratorio y aguas pluviales a un caudal variable. El tratamiento de las aguas subterráneas incluye la absorción de carbono y la eliminación de metales. Las puntas de descarga 002, 003, 004, 005 y 006 vierten aguas pluviales de forma intermitente y con caudal variable. Se prevé que los vertidos de las puntas de descargas contengan sólidos disueltos y en suspensión, compuestos carbonosos y metales. La información sobre otros contaminantes que pueden estar presentes en los vertidos figura en las Worksheets 2 y 7 de la solicitud TPDES.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

PERMIT NO. WQ0000749000

APPLICATION. Syngenta Crop Protection, LLC, 2239 Haden Road, Houston, Texas 77015, which formerly manufactured agricultural, specialty, and industrial organic chemicals, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000749000 (EPA I.D. No. TX0007439) to authorize the discharge of treated wastewater and stormwater at an intermittent and flow-variable rate via Outfall 001, and the discharge of stormwater at an intermittent and flow-variable rate via Outfalls 002, 003, 004, 005, and 006. The facility is located at 2239 Haden Road in the extraterritorial jurisdiction of the City of Houston, in Harris County, Texas 77015. The discharge route is from the plant site via Outfalls 001, 003, and 004 to unnamed ditches; thence to a Harris County Flood Control District Ditch; thence to the Greens Bayou Tidal, a portion of the Houston Ship Channel Tidal; and via Outfalls 002, 005, and 006 to a Harris County Flood Control District Ditch; thence to the Greens Bayou Tidal, a portion of the Houston Ship Channel Tidal. TCEQ received this application on September 28, 2023. The permit application will be available for viewing and copying at Harris County Public Library – North Channel Branch, 15741 Wallisville Road, Houston, Texas prior to the date this notice is published in the newspaper. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application. https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.171111,29.763055&level=18

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

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

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

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

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

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

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

The Commission may only grant a request for a contested case hearing on issues the requestor submitted in their timely comments that were not subsequently withdrawn. **If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed questions of fact and law relating to relevant and material water quality concerns submitted during the comment period. TCEQ may act on an application to renew a permit for discharge of wastewater without providing an opportunity for a contested case hearing if certain criteria are met.**

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

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

AGENCY CONTACTS AND INFORMATION. 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 Syngenta Crop Protection, LLC at the address stated above or by calling Mr. Ken Rike, Remediation Manager, at 713-248-0145.

Issuance Date: January 4, 2024

Comisión de Calidad Ambiental del Estado de Texas

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

PERMISO NO. WQ0000749000

SOLICITUD. Syngenta Crop Protection, LLC, 2239 Haden Road, Houston, Texas 77015, que antiguamente fabricaba productos químicos orgánicos agrícolas, especializados e industriales, ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) la renovación del Permiso del Sistema de Eliminación de Descargas Contaminantes de Texas (TPDES) No. WQ0000749000 (EPA I.D. No. TX0007439) para autorizar el vertido de aguas residuales tratadas y aguas pluviales a un caudal intermitente y variable por el punto de descarga 001, y el vertido de aguas pluviales a un caudal intermitente y variable por los puntos de descarga 002, 003, 004, 005 y 006. La instalación está ubicada en 2239 Haden Road, en la jurisdicción extraterritorial de la ciudad de Houston, en el Condado de Harris, Texas 77015. La ruta de descarga es desde el sitio de la planta por los puntos de descarga 001, 003 y 004 a zanjas sin nombre; de ahí a una zanja del Distrito de Control de Inundaciones del Condado de Harris; de ahí a Greens Bayou Tidal, una porción del Houston Ship Channel Tidal; y por los puntos de descarga 002, 005 y 006 a una zanja del Distrito de Control de Inundaciones del Condado de Harris; de ahí a la porción de Greens Bayou Tidal del Houston Ship Channel Tidal. La TCEQ recibió esta solicitud el 28 de septiembre de 2023. La solicitud de permiso estará disponible para ver y copiar en la Biblioteca Pública del Condado de Harris - North Channel Branch, 15741 Wallisville Road, Houston, Texas antes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o instalación es proporcionado como cortesía pública y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud. https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.171111,29.763055&level=18

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

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

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

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

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

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

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

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

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

También se puede obtener información adicional del Syngenta Crop Protection, LLC a la dirección indicada arriba o llamando a Sr. Ken Rike, Remediation Manager, al 713-248-0145.

Fecha de emission 10 de enero de 2024

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

COMBINED

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

AND

NOTICE OF APPLICATION AND PRELIMINARY DECISION (NAPD) FOR TPDES PERMIT FOR INDUSTRIAL WASTEWATER

RENEWAL

PERMIT NO. WQ0000749000

APPLICATION AND PRELIMINARY DECISION. Syngenta Crop Protection, LLC, 2239 Haden Road, Houston, Texas, 77015, which operates the Greens Bayou Plant, which formerly manufactured agricultural, specialty, and industrial organic chemicals, has applied to the Texas Commission on Environmental Quality (TCEQ) for a renewal of Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000749000, which authorizes the discharge of previously monitored effluents (treated process wastewater, incinerator wastewater, groundwater, treated domestic wastewater, non-process wastewater, and treated stormwater) on an intermittent and flow-variable basis via Outfall 001; and stormwater on an intermittent and flow-variable basis via Outfall 002, 003, 004, 005, and 006. The draft permit authorizes the discharge of remediated groundwater, non-process wastewater, and stormwater on an intermittent and flow-variable basis via Outfall 001, and stormwater on an intermittent and flow-variable basis via Outfalls 002, 003, 004, 005, and 006. The TCEQ received this application on September 28, 2023.

This combined notice is being issued because the technical contact for this application has been updated since the submittal of this application in 2023.

The facility is located at 2239 Haden Road in the extraterritorial jurisdiction of the City of Houston, Harris County, Texas 77015. This link to an electronic map of the site or facility's general location is provided as a public courtesy and is not part of the application or notice. For the exact location, refer to the application. https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.171111,29.763055&level=18

The effluent is discharged via Outfalls 001, 003, and 004 to unnamed ditches, thence to Harris County Flood Control District (HCFCD) ditch P104-00-00, thence to Greens Bayou Tidal portion of the Houston Ship Channel; and via Outfalls 002, 005 and 006 to HCFCD ditch P104-00-00, thence to Houston Ship Channel Tidal in Segment No. 1006 of the San Jacinto River Basin. The unclassified receiving water uses are minimal aquatic life uses for the unnamed ditches and minimal aquatic life use for HCFCD ditch P104-00-00. The designated uses for Segment No. 1006 are navigation and industrial water supply.

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

The TCEQ Executive Director has completed the technical review of the application and prepared a draft permit. The draft permit, if approved, would establish the conditions under which the facility must operate. The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The permit application, Executive Director's preliminary decision, and draft permit are available for viewing and copying at Harris County Public Library – North Channel Branch, 15741 Wallisville Road, Houston, Texas. 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

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

PUBLIC COMMENT / PUBLIC MEETING. You may submit public comments or request a public meeting about this application. The purpose of a public meeting is to provide the opportunity to submit written or oral comment or to ask questions about the application. Generally, the TCEQ will hold a public meeting if the Executive Director determines that there is a significant degree of public interest in the application or if requested by a local legislator. A public meeting is not a contested case hearing.

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

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

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

The Commission may only grant a request for a contested case hearing on issues the requestor submitted in their timely comments that were not subsequently withdrawn. **If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed questions of fact and law relating to relevant and material water quality concerns submitted during the comment period. TCEQ may act on an application to renew a permit for discharge of wastewater without providing an opportunity for a contested case hearing if certain criteria are met.**

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

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

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

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

AGENCY CONTACTS AND INFORMATION. Public comments and requests must be submitted either electronically at https://www.tceq.texas.gov/goto/comment/ or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Please be aware that any contact information you provide, including your name, phone number, email address, and physical address will become part of the agency's public record. For more information about this permit application or the permitting process, please call the TCEQ Public Education Program, toll free, at 1-800-687-4040 or visit their website at https://www.tceq.texas.gov/agency/decisions/participation/permitting-participation. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from Syngenta Crop Protection, LLC at the address stated above or by calling **Mr. Mike Hassett, Remediation Manager, at 678-780-6315**.

Issued: July 6, 2026

COMISIÓN DE CALIDAD AMBIENTAL DEL ESTADO DE TEXAS

COMBINADO

AVISO DE RECIBO DE SOLICITUD E INTENCION DE OBTENER UN PERMISO DE CALIDAD DE AGUA (NORI)

Y

AVISO DE SOLICITUD Y DECISION PRELIMINAR (NAPD) PARA LA RENOVACION DE UN PERMISO DEL TPDES PARA AGUAS RESIDUALES

INDUSTRIALES

PERMISO NO. WQ0000749000

SOLICITUD Y DECISIÓN PRELIMINAR. Syngenta Crop Protection, LLC, ubicada en 2239 Haden Road, Houston, Texas, 77015, que opera la Planta Greens Bayou, la cual anteriormente fabricaba productos químicos orgánicos para usos agrícolas, especializados e industriales, ha solicitado ante la Comisión de Calidad Ambiental de Texas (TCEQ) la renovación del Permiso Núm. WQ0000749000 del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES), el cual autoriza la descarga de efluentes previamente monitoreados (aguas residuales de procesos tratadas, aguas residuales de incinerador, aguas subterráneas, aguas residuales domésticas tratadas, aguas residuales no relacionadas con procesos y aguas pluviales tratadas) de manera intermitente y con caudal variable a través del Punto de Descarga 001; así como la descarga de aguas pluviales de manera intermitente y con caudal variable a través de los Puntos de Descarga 002, 003, 004, 005 y 006. El borrador del permiso autoriza la descarga de aguas subterráneas remediadas, aguas residuales no relacionadas con procesos y aguas pluviales de manera intermitente y con caudal variable a través del Punto de Descarga 001, así como la descarga de aguas pluviales de manera intermitente y con caudal variable a través de los Puntos de Descarga 002, 003, 004, 005 y 006. La TCEQ recibió esta solicitud el 28 de septiembre de 2023.

Este aviso combinado se emite porque el contacto técnico de esta solicitud ha sido actualizado desde que la solicitud fue presentada en 2023.

La facilidad está ubicada en 2239 Haden Road, dentro de la jurisdicción extraterritorial de la Ciudad de Houston, en el Condado de Harris, Texas 77015. Este enlace a un mapa electrónico de la ubicación general del sitio o de la facilidad se proporciona como una cortesía y no forma parte de la solicitud ni de este aviso. Para conocer la ubicación exacta, consulte la solicitud.
https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.171111,29.763055&level=18

El efluente se descarga a través de los Puntos de Descarga 001, 003 y 004 hacia zanjas sin nombre; posteriormente al canal de drenaje P104-00-00 del Distrito de Control de Inundaciones del Condado de Harris (HCFCD); y luego a la porción mareal de Greens Bayou del Canal de Navegación de Houston. Asimismo, se descarga a través de los puntos 002, 005 y 006 al canal de drenaje P104-00-00 del HCFCD y, de allí, a la porción mareal del Canal de Navegación de Houston, en el Segmento Núm. 1006 de la Cuenca del Río San Jacinto. Los usos de las aguas receptoras no clasificadas son de vida acuática mínima en las zanjas sin nombre y de vida acuática mínima para el canal de drenaje P104-00-00 del HCFCD. Los usos designados para el Segmento Nún. 1006 son la navegación y el suministro de agua para uso industrial.

El Director Ejecutivo de la TCEQ revisó esta acción para determinar su congruencia con los objetivos y las políticas del Programa de Manejo Costero de Texas (CMP, por sus siglas en inglés), de conformidad con los reglamentos de la Oficina General de Tierras (General Land Office), y ha determinado que dicha acción es consistente con los objetivos y las políticas aplicables del CMP.

El Director Ejecutivo de la TCEQ ha concluído la revisión técnica de la solicitud y ha preparado un borrador del permiso. El borrador del permiso, si es aprobado, establecería las condiciones bajo las cuales la instalación debe operar. El Director Ejecutivo ha tomado una decisión preliminar que si este permiso es emitido, cumple con todos los requisitos normativos y legales. La solicitud del permiso, la decisión preliminar del Director Ejecutivo y el borrador del permiso están disponibles para leer y copiar en la Biblioteca Pública del Condado de Harris – Sucursal North Channel, 15741 Wallisville Road, Houston, Texas. La solicitud y los avisos asociados están disponibles electrónicamente en la siguiente página web: https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications.

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

COMENTARIO PÚBLICO / REUNIÓN PUBLICA. Usted puede presentar comentarios públicos o pedir una reunión pública sobre esta solicitud. El propósito de una reunión pública es proveer una oportunidad de presentar comentarios por escrito u orales, o formular preguntas acerca de la solicitud. En general, la TCEQ llevará a cabo una reunión pública si el Director Ejecutivo determina que hay un grado significativo de interés público suficiente en la solicitud o si un legislador local lo solicita. Una reunión pública no es una audiencia de caso impugnado.

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

PARA SOLICITAR UNA AUDIENCIA DE CASO IMPUGNADO, USTED DEBE INCLUIR EN SU SOLICITUD LOS SIGUIENTES DATOS: su nombre, dirección, y número de teléfono; el nombre del solicitante y número del permiso propuesto; la ubicación y distancia de su propiedad/actividad con respecto a la facilidad; 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 la solicitud de audiencia de caso se presenta a nombre de un grupo o asociación, la solicitud también debe designar 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 facilidad o la actividad propuesta; proveer la información indicada anteriormente con respecto a la ubicación del miembro afectado y su distancia de la facilidad o actividad propuesta; explicar cómo y porqué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes para el propósito y la misión del grupo.

Después del cierre de todos los períodos de comentarios y de peticiones que apliquen, 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 audiencia de caso impugnado respecto de aquellos asuntos que el solicitante haya presentado oportunamente en sus comentarios y que no fueron retirados posteriormente. **Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o a cuestiones mixtas de hecho y de derecho relacionadas a inquietudes sobre la calidad del agua que sean pertinentes y sustanciales, y que hayan presentado durante el período de comentarios públicos. La TCEQ puede tomar una decisión sobre una solicitud de Renovación de un permiso de descarga de aguas residuales sin proveer una oportunidad de una audiencia de caso contencioso, siempre que cumplan ciertos criterios.**

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

LISTA DE CORREO. Si usted presenta comentarios públicos, una solicitud de una audiencia de caso impugnado o una solicitud de reconsideración de la decisión del Director Ejecutivo, será incluido en la lista de correo correspondiente a esta solicitud específica para recibir futuros avisos públicos enviados por la Oficina del Secretario Oficial. Además, puede solicitar ser incluído en: (1) la lista de correo permanente para un nombre de solicitante específico y número de permiso determinado; y (2) la lista de correo para un condado específico. Para ser colocado en la lista de correo permanente y del condado, especifique claramente qué lista(s) y envíe su solicitud a la Oficina del Secretario Oficial de la TCEQ a la dirección a continuación.

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

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

CONTACTOS E INFORMACIÓN DE LA AGENCIA. Los comentarios y solicitudes del público deben presentarse electrónicamente a: https://www.tceq.texas.gov/goto/comment, o por escrito a Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Tenga en cuenta que cualquier información de contacto que proporcione, incluido su nombre, número de teléfono, dirección de correo electrónico y dirección física, pasará a formar parte del expediente público de la agencia. Para obtener más información sobre esta solicitud de permiso o el proceso de permisos, llame gratuitamente al Programa de Educación Pública de la TCEQ al 1-800-687-4040 o visite su sitio web en: https://www.tceq.texas.gov/agency/decisions/participation/permitting-participation. Si desea información en español, puede llamar al 1-800-687-4040.

Puede obtener información adicional del Syngenta Crop Protection, LLC a la dirección indicada arriba o llamando al **Sr. Mike Hassett, Gerente de Remediación al 678-780-6315.**

Emitido: 6 de julio de 2026

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

TPDES PERMIT NO.
WQ0000749000
[For TCEQ office use only -
EPA I.D. No. TX0007439]

This renewal replaces TPDES Permit No. WQ0000749000, issued on March 27, 2019.

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

Syngenta Crop Protection, LLC

whose mailing address is

2239 Haden Road
Houston, Texas, 77015

is authorized to treat and discharge wastes from Greens Bayou Plant, which preivously manufactured agricultural, specialty, and industrial organic chemicals (SIC 2879 and 2819)

located at 2239 Haden Road in the extraterritorial jurisdiction, in the extraterritorial jurisdiction of the City of Houston, in Harris County, Texas 77015

via Outfalls 001, 003, and 004 to unnamed ditches, thence to Harris County Flood Control District (HCFCD) ditch P104-00-00, thence to Greens Bayou Tidal portion of the Houston Ship Channel; and via Outfalls 002, 005 and 006 to HCFCD ditch P104-00-00, thence to Houston Ship Channel Tidal in Segment No. 1006 of the San Jacinto River Basin

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

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

ISSUED DATE:

_____
For the Commission

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge stormwater and previously monitored effluents (treated groundwater, non-process wastewater) subject to the following effluent limitations:

Volume: Intermittent and Flow-Variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	Continuous	Totalizer
Oil and Grease	N/A	15	15	2/week	Grab
Hexachlorobenzene	0.000023 0.00017 lbs/day	0.000049 0.00037 lbs/day	0.005	2/week	Composite
Chlorothalonil (Daconil) [1]	N/A	0.6	0.6	2/week	Grab
Total Organic Carbon [1]	N/A	55	55	2/week	Grab
Arsenic, Total	0.1	0.2	0.3	1/week	Composite
Copper, Total	0.023 0.165 lbs/day	0.049 0.350 lbs/day	0.072	1/week	Composite
Cyanide, Free [2]	0.009	0.019	0.019	1/week	Grab
Manganese, Total	1.0	2.0	3.0	1/week	Composite
Chloride	Report	Report	N/A	1/month	Composite
Hexachlorocyclohexane (*alpha*)	Report	Report	N/A	1/month	Composite
Hexachlorocyclohexane (*gamma*)	Report	Report	N/A	1/month	Composite
Hexachlorocyclohexane (*beta*)	Report	Report	N/A	1/month	Composite
Hexachlorocyclohexane (*delta*)	Report	Report	N/A	1/month	Composite
Vanadium, Total	Report	Report	N/A	1/month	Composite
Xylenes, Total	Report	Report	N/A	1/month	Composite
DCPA [Dacthal]	N/A	0.168	0.250	1/quarter	Composite
4,4′-DDT	Report	Report	N/A	1/quarter	Composite
4,4′-DDD	Report	Report	N/A	1/quarter	Composite
4,4′-DDE	Report	Report	N/A	1/quarter	Composite

[1] When discharge occurs from the drainage area of former Outfall 201. See Other Requirement No. 12.
[2] See Other Requirement No. 10.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Cadmium, Total	Report	Report	N/A	1/6 months	Composite
Chromium, Hexavalent	Report	Report	N/A	1/6 months	Composite
Mercury, Total	Report	Report	N/A	1/6 months	Composite
Selenium, Total	Report	Report	N/A	1/6 months	Composite
Silver, Total	Report	Report	N/A	1/6 months	Composite
Aldrin	Report	Report	N/A	1/6 months	Composite
Chlordane	Report	Report	N/A	1/6 months	Composite
Dieldrin	Report	Report	N/A	1/6 months	Composite
Lead, Total	0.154 1.07 lbs/day	0.326 2.27 lbs/day	0.465	1/year	Composite
Benzo(*a*)anthracene	0.0009	0.002	0.005	1/year	Composite
Benzo(*a*)pyrene	0.00009	0.0002	0.005	1/year	Composite
Lethal Whole Effluent Toxicity (WET) limit 8% (Parameter 51713)					
Americamysis bahia (7-day chronic NOEC [3])	8%	8%	N/A	1/quarter	Composite
Lethal Whole Effluent Toxicity (WET) limit 8% (Parameter 51712)					
Menidia beryllina (7-day chronic NOEC [2])	8%	8%	N/A	1/quarter	Composite
24-hour Acute Whole Effluent Toxicity (WET) limit >100% (Parameter 51713)					
Americamysis bahia (24-hour acute LC50 [4])	>100%	>100%	N/A	1/6 months	24-Hour Composite

2. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 1/day by grab sample.
3. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
4. Effluent monitoring samples shall be taken at the following location: at Outfall 001, after waste streams for Outfall 001 have commingled, and prior to discharge to the unnamed ditch.

[3] The no observed effect concentration (NOEC) is here defined as the greatest effluent dilution at which no significant lethality is demonstrated. Significant lethality is here defined as a statistically significant difference between a specified effluent dilution and the control for lethal effects.
[4] The LC50 (Lethal Concentration 50) is defined as the effluent dilution at which 50% of the organisms survive.

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge remediated groundwater and non-process wastewater subject to the following effluent limitations:

The daily average flow of effluent shall not exceed 0.9 million gallons per day (MGD). The daily maximum flow shall not exceed 1.6 MGD.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	0.9 MGD	1.6 MGD	N/A	Continuous	Totalizer
Biochemical Oxygen Demand (5-day)	24.0	66.6	100	2/week	Composite
Total Suspended Solids	28.6	66.6	100	2/week	Composite
Ammonia, as Nitrogen	2.7	5.3	8.0	2/week	Composite
Total Organic Carbon	85.2	170.4	210	2/week	Composite
Arsenic, Total	0.20	0.30	0.45	2/week	Composite
Chlorothalonil [Daconil]	0.007	0.023	0.05	2/week	Composite
Chloromethane [Methyl Chloride]	0.022	0.049	0.192	1/week	Composite
1,2-Dichloroethane	0.043	0.134	0.264	1/week	Composite
Tetrachloromethane [Carbon Tetrachloride]	0.011	0.024	0.047	1/week	Composite
Trichloromethane [Chloroform]	0.013	0.029	0.051	1/week	Composite
Chemical Oxygen Demand	155	251	320	1/quarter	Composite
Cyanide, Total	0.130	0.377	0.377	1/year	Grab
Acenaphthene	0.001	0.003	0.010	1/year	Composite
Acenapthylene	0.001	0.003	0.010	1/year	Composite
Acrylonitrile	0.007	0.017	0.050	1/year	Composite
Anthracene	0.001	0.003	0.010	1/year	Composite
Benzene	0.023	0.086	0.170	1/year	Composite
Benzo(*a*)anthracene	0.001	0.003	0.009	1/year	Composite
3,4-Benzofluoranthene [Benzo(*b*)fluoranthene]	0.001	0.004	0.010	1/year	Composite
Benzo(*k*)fluoranthene	0.001	0.003	0.009	1/year	Composite
Benzo(*a*)pyrene	0.001	0.004	0.009	1/year	Composite
Bis(2-ethylhexyl) phthalate	0.007	0.019	0.042	1/year	Composite
Bromodichloromethane [Dichlorobromomethane]	0.079	0.212	0.421	1/year	Composite

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Bromomethane	0.079	0.212	0.421	1/year	Composite
Chlorobenzene	0.009	0.018	0.035	1/year	Composite
Chloroethane	0.008	0.020	0.050	1/year	Composite
2-Chlorophenol	0.020	0.062	0.123	1/year	Composite
Chrysene	0.001	0.003	0.009	1/year	Composite
Dibromochloromethane [Chlorodibromomethane]	0.109	0.444	0.880	1/year	Composite
Di-*n*-butyl phthalate	0.001	0.003	0.010	1/year	Composite
1,2-Dichlorobenzene	0.049	0.103	0.204	1/year	Composite
1,3-Dichlorobenzene	0.002	0.003	0.010	1/year	Composite
1,4-Dichlorobenzene	0.009	0.018	0.035	1/year	Composite
1,1-Dichloroethane	0.002	0.004	0.010	1/year	Composite
1,1-Dichloroethylene	0.010	0.016	0.032	1/year	Composite
1,2-*trans*-Dichloroethylene	0.013	0.034	0.068	1/year	Composite
Dichloromethane [Methylene Chloride]	0.025	0.056	0.112	1/year	Composite
2,4-Dichlorophenol	0.025	0.071	0.140	1/year	Composite
1,2-Dichloropropane	0.097	0.146	0.288	1/year	Composite
1,3-Dichloropropene [1,3-Dichloropropylene]	0.018	0.028	0.055	1/year	Composite
Diethyl phthalate	0.003	0.008	0.030	1/year	Composite
2,4-Dimethylphenol	0.011	0.023	0.045	1/year	Composite
Dimethyl phthalate	0.001	0.003	0.010	1/year	Composite
4,6-Dinitro-*o*-cresol	0.006	0.021	0.050	1/year	Composite
2,4-Dinitrophenol	0.005	0.009	0.050	1/year	Composite
2,4-Dinitrotoluene	0.008	0.021	0.042	1/year	Composite
2,6-Dinitrotoluene	0.019	0.048	0.095	1/year	Composite
Ethylbenzene	0.020	0.068	0.135	1/year	Composite
Fluoranthene	0.002	0.004	0.010	1/year	Composite
Fluorene	0.001	0.003	0.010	1/year	Composite
Hexachlorobutadiene	0.001	0.004	0.010	1/year	Composite

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Hexachloroethane	0.002	0.004	0.020	1/year	Composite
Naphthalene	0.014	0.036	0.073	1/year	Composite
Nitrobenzene	0.002	0.005	0.010	1/year	Composite
2-Nitrophenol	0.003	0.005	0.020	1/year	Composite
4-Nitrophenol	0.005	0.009	0.050	1/year	Composite
Phenanthrene	0.001	0.003	0.010	1/year	Composite
Phenol	0.009	0.017	0.033	1/year	Composite
Pyrene	0.001	0.004	0.010	1/year	Composite
Tetrachloroethylene	0.014	0.035	0.070	1/year	Composite
Toluene	0.017	0.050	0.100	1/year	Composite
Tribromomethane [Bromoform]	0.109	0.444	0.880	1/year	Composite
1,2,4-Trichlorobenzene	0.005	0.010	0.021	1/year	Composite
1,1,1-Trichloroethane	0.013	0.034	0.068	1/year	Composite
1,1,2-Trichloroethane	0.002	0.004	0.010	1/year	Composite
Trichloroethylene	0.002	0.004	0.010	1/year	Composite
Vinyl Chloride	0.007	0.013	0.040	1/year	Composite

2. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

3. Effluent monitoring samples shall be taken at the following location unless otherwise specified: at Outfall 101, at the exit of the Groundwater Remediation Unit.

1. During the period beginning upon the date of permit issuance and lasting through the date of permit expiration, the permittee is authorized to discharge stormwater subject to the following effluent limitations:

   Volume: Intermittent and Flow-Variable.

Effluent Characteristics	Discharge Limitations			Minimum Self-Monitoring Requirements	
	Daily Average mg/L	Daily Maximum mg/L	Single Grab mg/L	Report Daily Average and Daily Maximum Measurement Frequency	Sample Type
Flow	Report, MGD	Report, MGD	N/A	1/6 months [1]	Estimate
Total Organic Carbon	N/A	55	55	1/6 months [1]	Grab
Oil and Grease	N/A	15	15	1/6 months [1]	Grab

2. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored 1/6 months [1] by grab sample.

3. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

4. Effluent monitoring samples shall be taken at the following locations:

   - at Outfall 002, in area 5 (the park) at the culvert entrance prior to discharging to Harris County Flood Control District (HCFCD) Ditch P104-00-00;
   - at Outfall 003, across from the former location of Warehouse No. 9 near the fence at Haden Road prior to discharging to the unnamed drainage ditch;
   - at Outfall 004, north of the stormwater basin at the back of the property prior to discharging to the unnamed drainage ditch;
   - at Outfall 005, in area 7 at the end of the box culvert, across from the berm for the dredge project prior to discharging to the HCFCD ditch; and
   - at Outfall 006, in area 7 at the end of the box culvert, across from the berm for the dredge project prior to entering the unnamed drainage ditch.

[1] When discharge occurs.

DEFINITIONS AND STANDARD PERMIT CONDITIONS

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

1. Flow Measurements

   a. Annual average flow - the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder, and limited to major domestic wastewater discharge facilities with a one million gallons per day or greater permitted flow.

   b. Daily average flow - the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determination for intermittent discharges shall consist of a minimum of three flow determinations on days of discharge.

   c. Daily maximum flow - the highest total flow for any 24-hour period in a calendar month.

   d. Instantaneous flow - the measured flow during the minimum time required to interpret the flow measuring device.

   e. 2-hour peak flow (domestic wastewater treatment plants) - the maximum flow sustained for a two-hour period during the period of daily discharge. The average of multiple measurements of instantaneous maximum flow within a two-hour period may be used to calculate the 2-hour peak flow.

   f. Maximum 2-hour peak flow (domestic wastewater treatment plants) - the highest 2-hour peak flow for any 24-hour period in a calendar month.

2. Concentration Measurements

   a. Daily average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.

      i. For domestic wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.

      ii. For all other wastewater treatment plants - When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.

   b. 7-day average concentration - the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar week, Sunday through Saturday.

   c. Daily maximum concentration - the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.

   d. Daily discharge - the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the “daily discharge” is calculated as the total

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

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

e. Bacteria concentration (Fecal coliform, *E. coli*, or Enterococci) – the number of colonies of bacteria per 100 milliliters effluent. The daily average bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the nth root of the product of all measurements made in a calendar month, where n equals the number of measurements made; or computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of bacteria equaling zero, a substitute value of one shall be made for input into either computation method. If specified, the 7-day average for bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.

f. Daily average loading (lbs/day) - the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as (Flow, MGD × Concentration, mg/L × 8.34).

g. Daily maximum loading (lbs/day) - the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.

3. Sample Type

   a. Composite sample - For domestic wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC §319.9(a). For industrial wastewater, a composite sample is a sample made up of a minimum of three effluent portions collected in a continuous 24-hour period or during the period of daily discharge if less than 24 hours, and combined in volumes proportional to flow, and collected at the intervals required by 30 TAC §319.9(c).

   b. Grab sample - an individual sample collected in less than 15 minutes.

4. Treatment Facility (facility) - wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.

5. The term "sewage sludge" is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids that have not been classified as hazardous waste separated from wastewater by unit processes.

6. Bypass - the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

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

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

2. Test Procedures

   a. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§319.11 - 319.12. Measurements, tests, and calculations shall be accurately accomplished in a representative manner.

   b. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

3. Records of Results

   a. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.

   b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, records of all data used to complete the application for this permit, and the certification required by 40 CFR §264.73(b)(9) shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, application or certification. This period shall be extended at the request of the Executive Director.

   c. Records of monitoring activities shall include the following:

      i. date, time, and place of sample or measurement;
      ii. identity of individual who collected the sample or made the measurement;
      iii. date and time of analysis;
      iv. identity of the individual and laboratory who performed the analysis;
      v. the technique or method of analysis; and
      vi. the results of the analysis or measurement and quality assurance/quality control records.

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

4. Additional Monitoring by Permittee

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

5. Calibration of Instruments

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

6. Compliance Schedule Reports

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

7. Noncompliance Notification

   a. In accordance with 30 TAC §305.125(9) any noncompliance that may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Report of such information shall be provided orally or by facsimile transmission (FAX) to the regional office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the regional office and the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. For Publicly Owned Treatment Works (POTWs), effective September 1, 2020, the permittee must submit the written report for unauthorized discharges and unanticipated bypasses that exceed any effluent limit in the permit using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.

   b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:

      i. unauthorized discharges as defined in Permit Condition 2(g).
      ii. any unanticipated bypass that exceeds any effluent limitation in the permit.
      iii. violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.

   c. In addition to the above, any effluent violation that deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the regional office and the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.

   d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Enforcement Division (MC 224) as promptly as possible. For effluent limitation violations, noncompliances shall be reported on the approved self-report form.

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

9. Changes in Discharges of Toxic Substances

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

   a. That any activity has occurred or will occur that would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) that is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:

      i. one hundred micrograms per liter (100 µg/L);
      ii. two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
      iii. five (5) times the maximum concentration value reported for that pollutant in the permit application; or
      iv. the level established by the TCEQ.

b. That any activity has occurred or will occur that would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant that is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

i. five hundred micrograms per liter (500 μg/L);
ii. one milligram per liter (1 mg/L) for antimony;
iii. ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
iv. the level established by the TCEQ.

10. Signatories to Reports

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

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

a. any new introduction of pollutants into the POTW from an indirect discharger that would be subject to CWA §301 or §306 if it were directly discharging those pollutants;

b. any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit; and

c. for the purpose of this paragraph, adequate notice shall include information on:

i. the quality and quantity of effluent introduced into the POTW; and
ii. any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

PERMIT CONDITIONS

1. General

a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.

b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:

i. violation of any terms or conditions of this permit;
ii. obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
iii. a change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending, or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.

2. Compliance

a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.

b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment,

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

c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.

e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.

f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§305.62 and 305.66 and TWC §7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.

h. In accordance with 30 TAC §305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility that does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.

i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under Texas Water Code §§7.051 - 7.075 (relating to Administrative Penalties), 7.101 - 7.111 (relating to Civil Penalties), and 7.141 - 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA §402, or any requirement imposed in a pretreatment program approved under the CWA §§402(a)(3) or 402(b)(8).

3. Inspections and Entry

a. Inspection and entry shall be allowed as prescribed in the TWC Chapters 26, 27, and 28, and THSC Chapter 361.

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

4. Permit Amendment or Renewal

   a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:

      i. the alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in accordance with 30 TAC §305.534 (relating to New Sources and New Dischargers); or

      ii. the alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9; or

      iii. the alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.

   b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.

   c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate.

   d. Prior to accepting or generating wastes that are not described in the permit application or that would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.

   e. In accordance with the TWC §26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.

   f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA §307(a) for a toxic pollutant that is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or prohibition. The permittee shall comply with effluent standards or prohibitions established under CWA §307(a) for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

5. Permit Transfer

   a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.

   b. A permit may be transferred only according to the provisions of 30 TAC §305.64 (relating to Transfer of Permits) and 30 TAC §50.133 (relating to Executive Director Action on Application or WQMP update).

6. Relationship to Hazardous Waste Activities

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

7. Relationship to Water Rights

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

8. Property Rights

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

9. Permit Enforceability

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

10. Relationship to Permit Application

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

11. Notice of Bankruptcy.

    a. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:

       i. the permittee;
       ii. an entity (as that term is defined in 11 USC, §101(15)) controlling the permittee or listing the permit or permittee as property of the estate; or
       iii. an affiliate (as that term is defined in 11 USC, §101(2)) of the permittee.

    b. This notification must indicate:

       i. the name of the permittee;
       ii. the permit number(s);
       iii. the bankruptcy court in which the petition for bankruptcy was filed; and
       iv. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.

2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge use and disposal and 30 TAC §§319.21 - 319.29 concerning the discharge of certain hazardous metals.

3. Domestic wastewater treatment facilities shall comply with the following provisions:

   a. The permittee shall notify the Municipal Permits Team, Industrial Wastewater Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.

   b. The permittee shall submit a closure plan for review and approval to the Municipal Permits Team, Industrial Wastewater Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment or other treatment unit regulated by this permit.

4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, or retention of inadequately treated wastewater.

5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.

6. The permittee shall remit an annual water quality fee to the Commission as required by 30 TAC Chapter 21. Failure to pay the fee may result in revocation of this permit under TWC §7.302(b)(6).

7. Documentation

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

8. Facilities that generate domestic wastewater shall comply with the following provisions; domestic wastewater treatment facilities at permitted industrial sites are excluded.

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

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

b. The plans and specifications for domestic sewage collection and treatment works associated with any domestic permit must be approved by the Commission, and failure to secure approval before commencing construction of such works or making a discharge is a violation of this permit and each day is an additional violation until approval has been secured.

c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment, and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.

9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.

10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85%, unless otherwise authorized by this permit.

11. Facilities that generate industrial solid waste as defined in 30 TAC §335.1 shall comply with these provisions:

a. Any solid waste, as defined in 30 TAC §335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.

b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.

c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC §335.8(b)(1), to the Corrective Action Section (MC 127) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.

d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Permitting and Remediation Support Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC §335.5.

e. The term “industrial solid waste management unit” means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well, container, drum, salt dome waste containment cavern, or any other structure vessel, appurtenance, or other improvement on land used to manage industrial solid waste.

f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC Chapter 335 and must include the following, as it pertains to wastewater treatment and discharge:

i. volume of waste and date(s) generated from treatment process;
ii. volume of waste disposed of on-site or shipped off-site;
iii. date(s) of disposal;

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

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

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

TCEQ Revision 05/2021

OTHER REQUIREMENTS

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

2. Violations of daily maximum limitations for the following pollutants shall be reported orally or by facsimile to TCEQ Region 12 within 24 hours from the time the permittee becomes aware of the violation, followed by a written report within five working days to TCEQ Region 12 and Enforcement Division (MC 224):

Arsenic (Total)	1,3-Dichloropropylene
Copper (Total)	Diethyl Phthalate
Cyanide (Free and Available)	2,4-Dimethylphenol
Cyanide (Total)	Dimethyl Phthalate
Lead (Total)	4,6-Dinitro-o-Cresol
Manganese	2,4-Dinitrophenol
Acenaphthene	2,4-Dinitrotoluene
Acenaphthylene	2,6-Dinitrotoluene
Acrylonitrile	Ethylbenzene
Anthracene	Fluoranthene
Benzene	Fluorene
Benzo(a)anthracene	Hexachlorobenzene
3,4-Benzofluoranthene	Hexachlorobutadiene
[Benzo(b)fluoranthene]	Hexachloroethane
Benzo(k)fluoranthene	Naphthalene
Benzo(a)pyrene	Nitrobenzene
Bis(2-Ethylhexyl) phthalate	2-Nitrophenol
Bromodichloromethane	4-Nitrophenol
[Dichlorobromomethane]	Phenanthrene
Bromomethane	Phenol
Chlorobenzene	Pyrene
Chloroethane	Tetrachloroethylene
Chloromethane	Tetrachloromethane
[Methyl Chloride]	[Carbon Tetrachloride]
2-Chlorophenol	Toluene
Chrysene	Tribromomethane
Dibromochloromethane	[Bromoform]
[Chlorodibromomethane]	1,2,4-Trichlorobenzene
Di-n-Butyl Phthalate	1,1,1-Trichloroethane
1,2-Dichlorobenzene	1,1,2-Trichloroethane
1,3-Dichlorobenzene	Trichloroethylene
1,4-Dichlorobenzene	Trichloromethane
1,1-Dichloroethane	[Chloroform]
1,2-Dichloroethane	Vinyl Chloride
1,1-Dichloroethylene	Xylenes (Total)
1,2-trans-Dichloroethylene	Chlorothalonil
Dichloromethane	[Daconil]
[Methylene Chloride]	DCPA
2,4-Dichlorophenol	[Dacthal]
1,2-Dichloropropane	

Test methods used must be sensitive enough to demonstrate compliance with the permit effluent limitations. If an effluent limit for a pollutant is less than the minimum analytical level

(MAL), then the test method for that pollutant must be sensitive enough to demonstrate compliance at the MAL. Permit compliance/noncompliance determinations will be based on the effluent limitations contained in this permit, with consideration given to the MAL for the pollutants specified below.

Metals and Cyanide	**MAL (mg/L)**
Arsenic (Total)	0.0005
Cadmium (Total)	0.001
Chromium (Hexavalent)	0.003
Copper (Total)	0.002
Cyanide (Free and Available)	0.008
Cyanide (Total)	0.010
Lead (Total)	0.0005
Manganese	0.0005
Mercury (Total)	0.000005
Selenium (Total)	0.005
Silver (Total)	0.0005
Vanadium (Total)	0.005

Organic Pollutants	**MAL (mg/L)**
Acenaphthene	0.010
Acenaphthylene	0.010
Acrylonitrile	0.050
Anthracene	0.010
Benzene	0.010
Benzo(*a*)anthracene	0.005
3,4-Benzofluoranthene (Benzo(*b*)fluoranthene)	0.010
Benzo(*k*)fluoranthene	0.005
Benzo(*a*)pyrene	0.005
Bis(2-ethylhexyl) phthalate	0.010
Bromodichloromethane [Dichlorobromomethane]	0.010
Bromomethane	0.050
Chlorobenzene	0.010
Chloroethane	0.050
Chloromethane [Methyl Chloride]	0.050
2-Chlorophenol	0.010
Chrysene	0.005
Dibromochloromethane [Chlorodibromomethane]	0.010
Di-n-Butyl Phthalate	0.010
1,2-Dichlorobenzene	0.010
1,3-Dichlorobenzene	0.010
1,4-Dichlorobenzene	0.010
1,1-Dichloroethane	0.010

Organic Pollutants	MAL (mg/L)
1,2-Dichloroethane	0.010
1,1-Dichloroethylene	0.010
1,2-trans-Dichloroethylene	0.010
Dichloromethane [Methylene Chloride]	0.020
2,4-Dichlorophenol	0.010
1,2-Dichloropropane	0.010
1,3-Dichloropropylene	0.010
Diethyl Phthalate	0.010
2,4-Dimethylphenol	0.010
Dimethyl Phthalate	0.010
4,6-Dinitro-o-Cresol	0.050
2,4-Dinitrophenol	0.050
2,4-Dinitrotoluene	0.010
2,6-Dinitrotoluene	0.010
Ethylbenzene	0.010
Fluoranthene	0.010
Fluorene	0.010
Hexachlorobenzene	0.005
Hexachlorobutadiene	0.010
Hexachloroethane	0.020
Naphthalene	0.010
Nitrobenzene	0.010
2-Nitrophenol	0.020
4-Nitrophenol	0.050
Phenanthrene	0.010
Phenol	0.010
Pyrene	0.010
Tetrachloroethylene	0.010
Tetrachloromethane [Carbon Tetrachloride]	0.002
Toluene	0.010
Tribromomethane [Bromoform]	0.010
1,2,4-Trichlorobenzene	0.010
1,1,1-Trichloroethane	0.010
1,1,2-Trichloroethane	0.010
Trichloroethylene	0.010
Trichloromethane [Chloroform]	0.010
Vinyl Chloride	0.010
Xylenes (Total)	0.010

Pesticide Pollutants	MAL (mg/L)
Aldrin	0.00001
Chlordane	0.00015
Chlorothalonil [Daconil]	—
DCPA [Dacthal]	—
4,4'-DDD	0.0001
4,4'-DDE	0.0001
4,4'-DDT	0.00002
Dieldrin	0.00002
Alpha-Hexachlorocyclohexane	0.00005
Beta-Hexachlorocyclohexane	0.00005
Gamma-Hexachlorocyclohexane (Lindane)	0.00005
Delta-Hexachlorocyclohexane	0.00005

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

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

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

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

When an analysis of an effluent sample for a pollutant indicates no detectable levels and the test method detection level is not as sensitive as the MAL specified in the permit, or an MAL is not specified in the permit for that pollutant, the level of detection achieved shall be used for that measurement when making calculations for the self-reporting form. A zero may not be used.

The permittee may develop a matrix-specific method detection limit (MDL), in accordance with Appendix B of 40 CFR Part 136, to develop a permit-specific MAL. For any pollutant for which the permittee develops a permit-specific MAL, the permittee shall send to the TCEQ Industrial Permits Team (MC 148) a report containing quality assurance/quality control documentation, analytical results, and calculations necessary to support the requested permit-specific MAL. A permit-specific MAL must be derived from a matrix-specific MDL in accordance with the following equation:

$$MAL = 3.18 \times MDL$$

Upon written approval by the Wastewater Permitting Section of the TCEQ, an approved permit-specific MAL will supersede the MAL listed above as the level of demonstrated compliance. The matrix-specific MDL must be verified annually in accordance with Appendix B of 40 CFR Part 136. This ongoing annual verification of the MDL must be sent to the TCEQ Industrial Permits Team (MC 148) by September 1 of each year for continued authorization of the permit-specific MAL granted by the TCEQ. If ongoing annual verification is not submitted to the TCEQ Industrial Permits Team for review, the original MAL in the permit will become applicable.

3. Under normal operating conditions, all stormwater retention ponds must be operated in such a manner as to maintain a minimum freeboard of one foot.

4. This provision supersedes and replaces Provision 1, Paragraph 1 of Monitoring and Reporting Requirements found on Page 4 of this permit:

   Monitoring results shall be provided at the intervals specified in the permit. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall conduct effluent sampling and reporting in accordance with 30 TAC §§319.4 - 319.12. Unless otherwise specified, effluent monitoring data shall be submitted for each month, to the Enforcement Division (MC 224), by the 25th day of the following month for each discharge that is described by this permit whether or not a discharge was made during that month. Monitoring results must be submitted online using the NetDMR reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. Monitoring results must be signed and certified as required by Monitoring and Reporting Requirements No. 10.

5. Testing Procedures: Chlorothalonil and DCPA analyses shall be in accordance with the procedures specified in the TCEQ rules (30 TAC §§319.11 – 319.12) or the EPA-approved test procedures (see 40 CFR § 136.3, Table IG—Test Methods for Pesticide Active Ingredients).

6. There is no mixing zone established for this discharge to an intermittent stream. Acute toxic criteria apply at the point of discharge.

7. Monitoring results shall be provided at the intervals specified in this permit. For pollutants which are monitored annually, effluent reports must be submitted in September of each year. For pollutants which are monitored twice per year, the first effluent report shall be submitted six months after the date of permit issuance and subsequent reports every six months thereafter. For pollutants which are monitored four times per year, the first effluent report shall be submitted three months after the date of permit issuance and subsequent reports every three months thereafter.

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

9. STORMWATER BEST MANAGEMENT PRACTICES

   The permittee must continue to implement its stormwater pollution prevention plan (SWP3) that includes a set of best management practices (BMPs) to eliminate or lessen the exposure of stormwater to industrial activities and pollutants. The SWP3 must be maintained on site and be made readily available for review by authorized TCEQ personnel. The SWP3 must contain elements, or sections, to require implementation of the following activities:

   A. *Good Housekeeping Measures* - Activities must be defined and implemented to ensure areas of the facility that either contribute or potentially contribute pollutants to stormwater discharges are maintained and operated in a clean and orderly manner. The frequency for conducting each of the good housekeeping measures must be defined in the SWP3.

B. *Spill Prevention and Response Measures* - Areas must be identified where spills would likely contribute pollutants to stormwater discharges. Procedures must be identified and implemented to minimize or prevent contamination of stormwater from spills. Spill cleanup techniques must be identified and the necessary materials and equipment for cleanup made available to facility personnel. Facility personnel that work in the identified areas must be trained in spill prevention and response measures at a minimum frequency of once per year. A record of employee training shall be maintained at a minimum frequency of once per year, maintained on site, and made readily available for inspection by authorized TCEQ personnel upon request.

The SWP3 may be modified at any time in order to implement either additional or more effective pollution control measures. A summary of revisions, including the dates of the revisions, shall be maintained on a quarterly basis, maintained as a part of the SWP3 document, and made readily available for inspection by authorized TCEQ personnel upon request.

Qualified personnel, who are familiar with the industrial activities performed at the facility, must conduct monthly inspections to determine the effectiveness of the Good Housekeeping Measures, Spill Prevention and Response Measures, Best Management Practices, and Employee Training Program. The results of inspections must be documented in an inspection summary report, include an assessment for any necessary revisions or additional measures to increase the effectiveness of the SWP3, and include a time frame for implementation of any follow-up actions. The summary report must be maintained on site and be made readily available for inspection by authorized TCEQ personnel upon request.

10. This permit does not authorize the discharge of domestic wastewater. All domestic wastewater must be disposed of in an approved manner, such as routing to an approved on-site septic tank and drainfield system or to an authorized third party for treatment and disposal.

11. Wastewater discharged via Outfalls 003 and 004 must be sampled and analyzed for total mercury for a minimum of two sampling events. Each sampling event must be taken at least one week apart and must be tested to the MAL specified in the table below. Analytical testing for total mercury at Outfall 001 must begin at the first available sampling event. Results of the total mercury analytical testing must be submitted to the TCEQ Enforcement Division (MC-224) and Industrial Wastewater Permits Team (MC-148) prior to 60 days after the final sampling event. Based on a technical review of the submitted analytical results, an amendment may be initiated by TCEQ staff to include additional effluent limitations, monitoring requirements, or both.

Pollutant	**Effluent Concentration (µg/L)**					
	Sample 1	**Sample 2**	**Sample 3**	**Sample 4**	**Average**	**MAL (µg/L)**
Mercury, total						0.00005

12. The permittee shall maintain a daily record of flow from the stormwater retention basin at former internal Outfall 201. These records must be retained on-site for a minimum period of five (5) years from the date of measurement. The permittee shall make these records readily available for inspection by authorized TCEQ personnel upon request.

BIOMONITORING REQUIREMENTS

CHRONIC BIOMONITORING REQUIREMENTS: MARINE

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

1. Scope, Frequency and Methodology

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

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

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

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

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

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

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

   e. Testing Frequency Reduction

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

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

f. The lethal No Observed Effect Concentration (NOEC) effluent limitations of not less than 8% is effective at the permit issue date (see the EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS section) for both test species.

g. If a test species fails to meet the lethal NOEC of 8%, the testing frequency for that species will increase to monthly until such time compliance is demonstrated for a period of three consecutive months, at which time the permittee may return to quarterly testing.

2. Required Toxicity Testing Conditions

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

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

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

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

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

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

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

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

b. Statistical Interpretation

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

2) The permittee is responsible for reviewing test concentration-response relationships to ensure that calculated test-results are interpreted and reported correctly. The document entitled “Method Guidance and Recommendation for

Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)" (EPA 821-B-00-004) provides guidance on determining the validity of test results.

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

4) The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. The Lowest Observed Effect Concentration (LOEC) is defined as the lowest effluent dilution at which a significant effect is demonstrated. A significant effect is herein defined as a statistically significant difference between the survival, reproduction, or growth of the test organism in a specified effluent dilution compared to the survival, reproduction, or growth of the test organism in the control (0% effluent).

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

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

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

c. Dilution Water

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

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

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

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

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

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

d. Samples and Composites

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

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

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

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

3. Reporting

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

d. Enter the following codes for sublethal (but not lethal) retests only:

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

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

e. The permittee shall report the lethal WET values for the 30-day average and the 7-day minimum under Parameter No. 51713 for the mysid shrimp and Parameter No. 51712 for the inland silverside for the appropriate reporting period for both test species. If more than one valid test for one or both test species was performed during the reporting period, the NOECs will be averaged arithmetically and reported as the daily average NOEC. The data submitted should reflect the lowest lethal values during the reporting period.

4. Demonstration of a Significant Sublethal Effect

The requirements of this part apply only when a test demonstrates a significant sublethal (but not lethal) effect at the critical dilution. Significant sublethality is defined as a statistically significant difference in growth at the critical dilution when compared to the growth of the test organism in the control.

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

b. No more than one retest per month is required for a test species.

5. Toxicity Reduction Evaluation

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

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

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

2) Sampling Plan - The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The

effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;

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

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

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

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

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

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

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

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

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

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

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

f. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 28 months from the date the permittee was instructed to perform a TRE. The permittee may petition the Executive Director (in writing) for an extension of the 28-month limit. However, to warrant an extension the permittee must have

demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond their control stalled the toxicity identification evaluation/TRE. The report shall provide information pertaining to the specific control mechanism selected that will, when implemented, result in the reduction of effluent toxicity to no significant sublethality at the critical dilution. The report shall also provide a specific corrective action schedule for implementing the selected control mechanism.

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

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

TABLE 1 (SHEET 1 OF 4)

MYSID SHRIMP SURVIVAL AND GROWTH

Dates and Times Composites Collected

Date Time Date Time

No. 1 FROM: _____ TO: _____

No. 2 FROM: _____ TO: _____

No. 3 FROM: _____ TO: _____

Test initiated: _____am/pm _____date

Dilution water used: _____ Receiving water _____ Synthetic dilution water

MYSID SHRIMP SURVIVAL

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

* Coefficient of Variation = standard deviation x 100/mean

DATA TABLE FOR GROWTH OF MYSID SHRIMP

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

TABLE 1 (SHEET 2 OF 4)

MYSID SHRIMP SURVIVAL AND GROWTH

DATA TABLE FOR GROWTH OF MYSID SHRIMP (Continued)

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

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

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

   CRITICAL DILUTION (8%): _____ YES _____ NO

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

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

   CRITICAL DILUTION (8%): _____ YES _____ NO

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

   a.) NOEC survival = _____% effluent

   b.) LOEC survival = _____% effluent

   c.) NOEC growth = _____% effluent

   d.) LOEC growth = _____% effluent

TABLE 1 (SHEET 3 OF 4)

INLAND SILVERSIDE MINNOW LARVAL SURVIVAL AND GROWTH TEST

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

Test initiated: _____am/pm _____date

Dilution water used: _____ Receiving water _____ Synthetic Dilution water

INLAND SILVERSIDE SURVIVAL

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

* Coefficient of Variation = standard deviation x 100/mean

TABLE 1 (SHEET 4 OF 4)

INLAND SILVERSIDE LARVAL SURVIVAL AND GROWTH TEST

INLAND SILVERSIDE GROWTH

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

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

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

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

   CRITICAL DILUTION (8%): _____ YES _____ NO

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

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

   CRITICAL DILUTION (8%): _____ YES _____ NO

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

   a.) NOEC survival = _____% effluent

   b.) LOEC survival = _____% effluent

   c.) NOEC growth = _____% effluent

   d.) LOEC growth = _____% effluent

24-HOUR ACUTE BIOMONITORING REQUIREMENTS: MARINE

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

1. Scope, Frequency, and Methodology

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

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

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

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

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

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

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

e. The WET limit of greater than 50% survival in 100% effluent (LC50 of greater than 100%) after 24-hours is effective at the permit issue date (see also EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS section) for the mysid shrimp.

f. If a mysid shrimp test fails to meet an LC50 of greater than 100%, the permittee shall be considered in violation of this permit limit and the testing frequency will increase to monthly until such time compliance with the WET limit is demonstrated for three consecutive months, at which time the permittee may return to the semi-annual testing frequency.

2. Required Toxicity Testing Conditions

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

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

c. Samples and Composites

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

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

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

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

3. Reporting

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

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

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

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

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

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

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

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

d. Enter the following codes for inland silverside retests only:

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

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

e. The permittee shall report the Whole Effluent Lethality values for the 30-day Average Minimum and the 7-day Minimum under Parameter No. 51713 for the mysid shrimp for the appropriate reporting period. If more than one valid test was performed during the reporting period, the test LC50s will be averaged arithmetically and reported as the 30-day Average Minimum for that reporting period. The 7-day Minimum should reflect the lowest LC50 during the reporting period.

4. Persistent Mortality

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

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

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

5. Toxicity Reduction Evaluation

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

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

the successful elimination of significant lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

h. Within 3 years of the last day of the test confirming toxicity, the permittee shall comply with 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the test organism in 100% effluent at the end of 24-hours. The permittee may petition the Executive Director (in writing) for an extension of the 3-year limit. However, to

warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE.

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

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

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

TABLE 2 (SHEET 1 OF 2)

MYSID SHRIMP SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

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

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = _____% effluent

TABLE 2 (SHEET 2 OF 2)

INLAND SILVERSIDE SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

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

Enter percent effluent corresponding to the LC50 below:

24 hour LC50 = _____% effluent

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0000749000, U.S. Environmental Protection Agency (EPA) ID No. TX0007439, to discharge to water in the state

Issuing Office:	Texas Commission on Environmental Quality (TCEQ) P.O. Box 13087 Austin, Texas 78711-3087
Applicant:	Syngenta Crop Protection, LLC 2239 Haden Road Houston, Texas, 77015
Prepared By:	Alexander Owens Industrial Wastewater Section Water Quality Division (512) 239-6707
Date:	June 24, 2026
Permit Action:	Renewal with changes to remove treated process wastewater, incinerator wastewater, and treated domestic wastewater from Outfalls 101 and 001, remove Outfall 201, and adjust the permit accordningly following these removals.

I. EXECUTIVE DIRECTOR RECOMMENDATION

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

II. APPLICANT ACTIVITY

The applicant formerly operated the Greens Bayou Plant, which manufactured agricultural, specialty, and industrial organic chemicals.

III. DISCHARGE LOCATION

As described in the application, the facility is located at 2239 Haden Road in the extraterritorial jurisdiction, in the City of Houston, Harris County, Texas 77015. Discharge is via Outfalls 001, 003, and 004 to unnamed ditches, thence to Harris County Flood Control District (HCFCD) ditch P104-00-00, thence to Greens Bayou Tidal portion of the Houston Ship Channel; and via Outfalls 002, 005 and 006 to HCFCD ditch P104-00-00, thence to Houston Ship Channel Tidal in Segment No. 1006 of the San Jacinto River Basin.

IV. RECEIVING STREAM USES

The unclassified receiving water uses are minimal aquatic life uses for the unnamed ditches and minimal aquatic life use for HCFCD ditch P104-00-00. The designated uses for Segment No. 1006 are navigation and industrial water supply.

V. STREAM STANDARDS

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

VI. DISCHARGE DESCRIPTION

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

A. Flow

Outfall	Frequency	Average of Daily Average, MGD	Maximum of Daily Maximum, MGD
001	Continuous	0.257	1.95
101	Continuous	0.146	1.41
201	Intermittent	0.144	1.41
002	Intermittent	0.059	0.103
003	Intermittent	0.009	0.023
004	Intermittent	0.068	0.169
005	Intermittent	0.012	0.030
006	Intermittent	0.002	0.003

B. Effluent Characteristics

Outfall	Pollutant	Average of Daily Average	Maximum of Daily Maximum
		mg/L	*mg/L*
001	*Conventionals*		
	Oil and grease	N/A	6.70
	pH	6.2 SU, Min	9.2 SU, Max
	Metals and Cyanide		
	Arsenic, Total	0.0269	0.16
	Cadmium, Total	Non-Detect (ND)	ND
	Chromium, Hexavalent	0.00055	0.0055
	Copper, Total	0.002 0.004 lbs/day	0.036 0.093 lbs/day
	Cyanide, Free	0.0005	0.035
	Lead, Total	0.00033 0.001 lbs/day	0.00035 0.001 lbs/day
	Manganese, Total	0.243	6.52
	Mercury, Total	0.00004	0.00034
	Selenium, Total	ND	ND
	Silver, Total	ND	ND
	Vanadium, Total	0.030	0.659
	Organics/Pesticides		
	Aldrin	0.000002	0.00002

B. Effluent Characteristics

Outfall	Pollutant	Average of Daily Average	Maximum of Daily Maximum
		mg/L	*mg/L*
001	Chlordane	ND	ND
	DCPA [Dacthal or Dimethyl 2,3,5,6-tetrachloroterephthalate]	N/A	0.006
	4,4′-DDT	0.000007	0.0001
	4,4′-DDD	0.000008	0.0001
	4,4′-DDE	ND	ND
	Dieldrin	ND	ND
	Hexachlorobenzene	0.0000005, 0.00014 lbs/day	0.000003, 0.0012 lbs/day
	Hexachlorocyclohexane (*alpha*) [*alpha*-BHC]	0.00005	0.00053
	Hexachlorocyclohexane (*beta*) [*beta*-BHC]	0.00021	0.0012
	Hexachlorocyclohexane (*delta*) [*delta*-BHC]	0.0001	0.001
	Hexachlorocyclohexane (*gamma*) [*gamma*-BHC]	0.00002	0.0001
	TCDD Equivalents	N/A	Not Conducted[1]
	Xylenes, Total	ND	ND

B. Effluent Characteristics

Outfall	Pollutant	Avg of Daily Avg, lbs/day	Max of Daily Max, lbs/day
101	*Conventionals*		
	Biochemical Oxygen Demand, 5-day (BOD_5)	7.29	403.0
	Total Suspended Solids (TSS)	4.11	157
	Ammonia, as Nitrogen	0.41	10.3
	Total Organic Carbon (TOC)	5.78	77.80
	Chemical Oxygen Demand (COD)	36.9	1140
	Metals and Cyanide		
	Arsenic, Total	0.051	0.377
	Cyanide, Total	ND	ND
	Bacteria		
	Enterococci	10 cfu/100 mL [2]	3110 cfu/100 mL
	Organics/Pesticides		
	Acenaphthene	ND	ND
	Acenaphthylene	ND	ND
	Acrylonitrile	ND	ND
	Anthracene	ND	ND
	Benzene	ND	ND
	Benzo(*a*)anthracene	ND	ND

[1] Monitoring was conditional upon processes which did not occur during the life of the permit.

[2] Geometric mean.

B. Effluent Characteristics

Outfall	Pollutant	Avg of Daily Avg, lbs/day	Max of Daily Max, lbs/day
101	3,4-Benzofluoranthene [Benzo(*b*)fluoranthene]	ND	ND
	Benzo(*k*)fluoranthene	ND	ND
	Benzo(*a*)pyrene	ND	ND
	Bis(2-ethylhexyl) phthalate	ND	ND
	Bromodichloromethane [Dichlorobromomethane]	ND	ND
	Bromomethane	ND	ND
	Chlorine, Total Residual	0.02, Min	63.6, Max
	Chlorobenzene	ND	ND
	Chloroethane	ND	ND
	Chloromethane [Methyl Chloride]	ND	ND
	2-Chlorophenol	ND	ND
	Chlorothalonil [Daconil]	0.0036	1.25
	Chrysene	ND	ND
	Dibromochloromethane [Chlorodibromomethane]	ND	ND
	Di-*n*-butyl phthalate	ND	ND
	1,2-Dichlorobenzene	ND	ND
	1,3-Dichlorobenzene	ND	ND
	1,4-Dichlorobenzene	ND	ND
	1,1-Dichloroethane	ND	ND
	1,2-Dichloroethane	ND	ND
	1,1-Dichloroethylene	ND	ND
	1,2-*trans*-Dichloroethylene	ND	ND
	Dichloromethane [Methylene Chloride]	ND	ND
	2,4-Dichlorophenol	ND	ND
	1,2-Dichloropropane	ND	ND
	1,3-Dichloropropene [1,3-Dichloropropylene]	ND	ND
	Diethyl phthalate	ND	ND
	2,4-Dimethylphenol	ND	ND
	Dimethyl phthalate	ND	ND
	4,6-Dinitro-*o*-cresol	ND	ND
	2,4-Dinitrophenol	ND	ND
	2,4-Dinitrotoluene	ND	ND
	2,6-Dinitrotoluene	ND	ND
	Ethylbenzene	ND	ND
	Fluoranthene	ND	ND
	Fluorene	ND	ND
	Hexachlorobutadiene	ND	ND
	Hexachloroethane	ND	ND
	Naphthalene	ND	ND
	Nitrobenzene	ND	ND
	2-Nitrophenol	ND	ND
	4-Nitrophenol	ND	ND
	Phenanthrene	ND	ND
	Phenol	ND	ND

B. Effluent Characteristics

Outfall	Pollutant	Avg of Daily Avg, lbs/day	Max of Daily Max, lbs/day
101	Pyrene	ND	ND
	Tetrachloroethylene	ND	ND
	Tetrachloromethane [Carbon Tetrachloride]	ND	ND
	Toluene	ND	ND
	Tribromomethane [Bromoform]	ND	ND
	1,2,4-Trichlorobenzene	ND	ND
	1,1,1-Trichloroethane	ND	ND
	1,1,2-Trichloroethane	ND	ND
	Trichloroethylene	ND	ND
	Trichloromethane [Chloroform]	0.000088	0.019
	Vinyl Chloride	ND	ND

B. Effluent Characteristics

Outfall	Pollutant	Avg of Daily Avg, mg/L	Max of Daily Max, mg/L
201	TOC	N/A	15.6
	Arsenic, Total	N/A	0.027
	Chlorothalonil [Daconil]	N/A	0.022
002	TOC	N/A	23.4
	Oil and Grease	N/A	ND
	pH	6.4 SU, Min	7.7 SU, Max
003	TOC	N/A	21.7
	Oil and Grease	N/A	ND
	pH	6.2 SU, Min	7.66 SU, Max
004	TOC	N/A	15.2
	Oil and Grease	N/A	ND
	pH	6.0 SU, Min	7.5 SU, Max
005	TOC	N/A	10.9
	Oil and Grease	N/A	ND
	pH	6.1 SU, Min	7.5 SU, Max
006	TOC	N/A	24.4
	Oil and Grease	N/A	ND
	pH	6.2 SU, Min	7.7 SU, Max

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

D. Effluent Limitation Violations

Outfall	Pollutant (*mg/L*)	Month/ Year	Daily Average		Daily Maximum	
			Limit	Reported	Limit	Reported
001	Arsenic, Total	May 2021	0.1	0.11	0.2	0.13
	Cyanide, Free	May 2019	0.009	0.005	0.019	0.02
	Cyanide, Free	July 2019	0.009	0.0072	0.019	0.021
	Cyanide, Free	Nov 2022	0.009	0.007	0.019	0.035
	Manganese, Total	Feb 2020	1.0	1.068	2.0	1.88
	Manganese, Total	Oct 2020	1.0	1.683	2.0	6.52
	Manganese, Total	Nov 2020	1.0	2.067	2.0	5.49

D. Effluent Limitation Violations

Outfall	Pollutant (*mg/L*)	Month/ Year	Daily Average		Daily Maximum	
			Limit	Reported	Limit	Reported
001	pH	Jan 2020	6.0 SU, Min	7.8 SU, Min	9.0 SU, Max	9.2 SU, Max
101	*Enterococci (CFU or MPN per 100 mls)*	April 2019	35	35.8	104	287
	Enterococci	May 2019	35	55.6	104	4840
	Enterococci	June 2019	35	5.7	104	135
	Enterococci	July 2019	35	5.9	104	114
	Enterococci	Mar 2020	35	278.6	104	3110
	Enterococci	April 2020	35	20.3	104	775
	Enterococci	May 2020	35	8.6	104	345
	Enterococci	June 2020	35	34.1	104	1830
	Enterococci	July 2020	35	14.1	104	323
	Enterococci	Sept 2020	35	8.7	104	163
	Daconil	Mar 2020	0.053	0.138	0.176	1.246
	Daconil	May 2020	0.053	0.04	0.176	0.276

The draft permit was not changed to address these effluent limit violations because the facility has ceased generating domestic wastewater along with organic chemical and pesticide manufacturing operations onsite and is actively remediating the groundwater contaminated by legacy pollution. *Enterococci* are no longer discharged from the facility via the removal of domestic wastewater, and the violations of the metal and daconil effluent limitations have not occurred since the decommissioning of the facility.

VII. DRAFT EFFLUENT LIMITATIONS

Effluent limitations are established in the draft permit as follows:

Outfall	Pollutant	Daily Average mg/L	Daily Maximum mg/L
001	Flow	Report, MGD	Report, MGD
	Conventionals		
	Oil and Grease	N/A	15
	TOC [1]	N/A	55
	pH	6.0 SU, min	9.0 SU
	Metals, Cyanide, and Chloride		
	Arsenic, Total	0.1	0.2
	Cadmium, Total	Report	Report
	Chloride	Report	Report
	Chromium, Hexavalent	Report	Report
	Copper, Total	0.024 0.165 lbs/day	0.051 0.350 lbs/day
	Cyanide, Free	0.009	0.019
	Lead, Total	0.155 1.07 lbs/day	0.329 2.27 lbs/day
	Manganese, Total	1.0	2.0

[1] When discharge occurs from the drainage area of former Outfall 201. See Other Requirement No. 12.

Outfall	Pollutant	Daily Average mg/L	Daily Maximum mg/L
001	Mercury, Total	Report	Report
	Selenium, Total	Report	Report
	Silver, Total	Report	Report
	Vanadium, Total	Report	Report
	Organics/Pesticides		
	Aldrin	Report	Report
	Benzo(a)anthracene	0.0009	0.002
	Benzo(a)pyrene	0.00009	0.0002
	Chlordane	Report	Report
	Chlorothalonil (Daconil) [1]	N/A	0.6
	DCPA [Dacthal or Dimethyl 2,3,5,6-tetrachloroterephthalate]	N/A	0.168
	4,4′-DDT	Report	Report
	4,4′-DDD	Report	Report
	4,4′-DDE	Report	Report
	Dieldrin	Report	Report
	Hexachlorobenzene	0.000023 0.0002 lbs/day	0.000049 0.0004 lbs/day
	Hexachlorocyclohexane (*alpha*) [*alpha*-BHC]	Report	Report
	Hexachlorocyclohexane (*beta*) [*beta*-BHC]	Report	Report
	Hexachlorocyclohexane (*delta*) [*delta*-BHC]	Report	Report
	Hexachlorocyclohexane (*gamma*) [*gamma*-BHC]	Report	Report
	Xylenes, Total	Report	Report
	Whole Effluent Toxicity (WET) Limits		
	Mysidopsis bahia (7-day chronic NOEC [1])	8%	8%
	Menidia beryllina (7-day chronic NOEC)	8%	8%
	Mysidopsis bahia (24-hour acute LC50 [2])	>100%	>100%

[1] The no observed effect concentration (NOEC) is defined as the greatest effluent dilution at which no significant lethality is demonstrated. Significant lethality is defined as a statistically significant difference between a specified effluent dilution and the control for lethal effects.

[2] The LC50 (Lethal Concentration 50) is defined as the effluent dilution at with 50% of the organisms survive.

Outfall	Pollutant	Daily Average, mg/L	Daily Maximum, mg/L
101	Flow	0.9 MGD	1.6 MGD
	Conventionals		
	BOD_5	24.0	66.6
	TSS	28.6	66.6
	Ammonia, as Nitrogen	2.7	5.3
	TOC	85.2	170
	COD	155	251
	Metals and Cyanide		
	Arsenic, Total	0.2	0.3
	Cyanide, Total	0.13	0.377
	Organics/Pesticides		
	Acenaphthene	0.001	0.003
	Acenaphthylene	0.001	0.003
	Acrylonitrile	0.007	0.017
	Anthracene	0.001	0.003
	Benzene	0.023	0.086
	Benzo(*a*)anthracene	0.001	0.003
	3,4-Benzofluoranthene [Benzo(*b*)fluoranthene]	0.001	0.004
	Benzo(*k*)fluoranthene	0.001	0.003
	Benzo(*a*)pyrene	0.001	0.004
	Bis(2-ethylhexyl) phthalate	0.007	0.019
	Bromodichloromethane [Dichlorobromomethane]	0.079	0.212
	Bromomethane	0.079	0.212
	Chlorobenzene	0.009	0.018
	Chloroethane	0.008	0.020
	Chloromethane [Methyl Chloride]	0.022	0.049
	2-Chlorophenol	0.020	0.062
	Chlorothalonil [Daconil]	0.007	0.023
	Chrysene	0.001	0.003
	Dibromochloromethane [Chlorodibromomethane]	0.109	0.444
	Di-*n*-butyl phthalate	0.001	0.003
	1,2-Dichlorobenzene	0.049	0.103
	1,3-Dichlorobenzene	0.002	0.003
	1,4-Dichlorobenzene	0.009	0.018
	1,1-Dichloroethane	0.002	0.004
	1,2-Dichloroethane	0.043	0.134
	1,1-Dichloroethylene	0.010	0.016
	1,2-*trans*-Dichloroethylene	0.013	0.034
	Dichloromethane [Methylene Chloride]	0.025	0.056

Outfall	Pollutant	Daily Average, mg/L	Daily Maximum, mg/L
101	2,4-Dichlorophenol	0.025	0.071
	1,2-Dichloropropane	0.097	0.146
	1,3-Dichloropropene [1,3-Dichloropropylene]	0.018	0.028
	Diethyl phthalate	0.003	0.008
	2,4-Dimethylphenol	0.011	0.023
	Dimethyl phthalate	0.001	0.003
	4,6-Dinitro-*o*-cresol	0.006	0.021
	2,4-Dinitrophenol	0.005	0.009
	2,4-Dinitrotoluene	0.008	0.021
	2,6-Dinitrotoluene	0.019	0.048
	Ethylbenzene	0.020	0.068
	Fluoranthene	0.002	0.004
	Fluorene	0.001	0.003
	Hexachlorobutadiene	0.001	0.004
	Hexachloroethane	0.002	0.004
	Naphthalene	0.014	0.036
	Nitrobenzene	0.002	0.005
	2-Nitrophenol	0.003	0.005
	4-Nitrophenol	0.005	0.009
	Phenanthrene	0.001	0.003
	Phenol	0.009	0.017
	Pyrene	0.001	0.004
	Tetrachloroethylene	0.014	0.035
	Tetrachloromethane [Carbon Tetrachloride]	0.011	0.024
	Toluene	0.017	0.050
	Tribromomethane [Bromoform]	0.109	0.444
	1,2,4-Trichlorobenzene	0.005	0.010
	1,1,1-Trichloroethane	0.013	0.034
	1,1,2-Trichloroethane	0.002	0.004
	Trichloroethylene	0.002	0.004
	Trichloromethane [Chloroform]	0.013	0.029
	Vinyl Chloride	0.007	0.013
002	Flow	Report, MGD	Report, MGD
	TOC	N/A	55
	Oil and Grease	N/A	15
	pH	6.0 SU, min	9.0 SU
003	Flow	Report, MGD	Report, MGD
	TOC	N/A	55
	Oil and Grease	N/A	15
	pH	6.0 SU, min	9.0 SU
004	Flow	Report, MGD	Report, MGD

Outfall	Pollutant	Daily Average, mg/L	Daily Maximum, mg/L
004	TOC	N/A	55
	Oil and Grease	N/A	15
	pH	6.0 SU, min	9.0 SU
005	Flow	Report, MGD	Report, MGD
	TOC	N/A	55
	Oil and Grease	N/A	15
	pH	6.0 SU, min	9.0 SU
006	Flow	Report, MGD	Report, MGD
	TOC	N/A	55
	Oil and Grease	N/A	15
	pH	6.0 SU, min	9.0 SU

OUTFALL LOCATIONS

Outfall	Latitude	Longitude
001	29.763567 N	95.169128 W
002	29.756141 N	95.171093 W
003	29.760153 N	95.171019 W
004	29.766191 N	95.169841 W
005	29.762356 N	95.168628 W
006	29.762698 N	95.168820 W

VIII. SUMMARY OF CHANGES FROM APPLICATION

The applicant requested the following amendments that the executive director did not grant:

1. The removal of production-based allocations for the discharge of process wastewater based on effluent guidelines under 40 CFR §§414/455. While manufacturing has been terminated, groundwater at the site has been contaminated with a variety of the pollutants regulated under 40 CFR §§414/455. So long as groundwater onsite is being treated for legacy pollutants associated with the facility's former processes, the technology based effluent limitations associated with those legacy pollutants cannot be removed under a minor amendment action.

IX. SUMMARY OF CHANGES FROM EXISTING PERMIT

The permittee requested the following amendments that the Executive Director recommends granting:

1. Remove treated process wastewater, incinerator wastewater, and treated domestic wastewater from the list of authorized wastewaters at Outfall 101 (permit, pg. 2b) because they are no longer generated.
2. Remove treated domestic wastewater, treated process wastewater, and incinerator wastewater from the list of wastewaters for Outfall 001 because these wastewaters are no longer generated.

3. Change "treated stormwater" to "stormwater" at Outfall 001 because the stormwater treatment system has been removed following the cleanup of contaminated facility areas which impacted stormwater.
4. Remove Outfall 201 as an internal monitoring point, following the removal of the stormwater treatment system due to the completed cleanup of areas affecting stormwater. Parameters at Outfall 201 have been applied to Outfall 001 as appropriate.
5. Remove monitoring for enterococci and corresponding footnotes 1 and 2 for Outfall 101 because domestic wastewater is no longer authorized for discharge.

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

1. Pages 3-13 were updated (May 2021 version).
2. The Other Requirements section (beginning on page 14) was rearranged to assist with compliance monitoring.
3. On November 27, 2023, the permit for the Greens Bayou Plant was transferred from GB Biosciences LLC to Syngenta Crop Protection, LCC. The draft permit has been updated accordingly.
4. Flow volumes at Outfall 001 have been updated to intermittent and flow-variable following the removal of domestic wastewater and process wastewater from the draft permit.
5. The self-expiring monitoring requirement for TCDD Equivalents at Outfall 001 was removed from the draft permit following self-expiration and the cessation of processes onsite which monitoring was conditioned upon.
6. At the recommendation of the Standards Implementation Team, monitoring and reporting for chloride has been implemented in the draft permit at Outfall 001 following a TDS, chloride, and sulfate screening. See Appendix C.
7. Water quality-based effluent limitations for the protection of human health have been included in the draft permit at Outfall 001 to ensure that existing limits for benzo(a)anthracene and benzo(a)pyrene at Outfall 101 are protective of the receiving segment.
8. Water quality-based effluent limitations for the protection of human health calculated for hexachlorobenzene in this permit action were more stringent than the effluent limitations established in the existing permit. Therefore, the effluent limitations for hexachlorobenzene at Outfall 001 have been updated.
9. The monitoring location for Outfall 001 has been updated to reflect the cessation of manufacturing operations at the facility and ongoing groundwater remediation.
10. The mass-based allocations at Outfall 101 have been converted to concentration-based effluent limitations which are more appropriate for the variable flows anticipated in the discharge from the groundwater remediation unit.
11. Mass-based allocations for organic pollutants at Outfall 101 have been recalculated using the effluent limitations guidelines in 40 CFR 414, Subpart J, following the removal of biological treatment at the facility.
12. Footnotes 2 and 3 on page 2a of the existing permit has been removed with the removal of TCDD Equivalents monitoring.
13. Footnotes 1 and 2 have been removed from page 2b of the permit following the removal of enterococci limits.

14. Monitoring for chlorine residuals at Outfall 101 have been removed following the removal of domestic wastewater from the draft permit.
15. Other Requirement No. 2 was updated to revise the MAL for free/available cyanide to be sufficiently stringent to meet the daily average effluent limitation in the draft permit.
16. The format of Other Requirement No. 2 was updated for clarity.
17. Other Requirement No. 2 has been updated to include language for site specific MALs.
18. Other Requirement No. 3 from the existing permit was removed as the facility no longer uses cooling water and 316b compliance is no longer applicable to this facility.
19. Other Requirement No. 8 was removed from the existing permit as processes regulated by 40 CFR Part 455, Subpart C, have ceased.
20. Other Requirement No. 10 was added to the draft permit to prohibit the discharge of domestic wastewater following the closure of domestic wastewater treatment units onsite.
21. Other Requirement Nos. 11 and 12 from the existing permit have been removed following the removal of TCDD monitoring.
22. Other Requirement No. 11 has been added to the draft permit to require a re-test of Outfalls 003 and 004 for total mercury to ensure the discharge of stormwater via these outfalls is consistent with 30 TAC Chapter 319 limits which apply to all TPDES permitted outfalls.
23. Other Requirement No. 12 has been added to the draft permit to clarify when TOC and chlorothalonil (daconil) shall be monitored and reported at Outfall 001 following the removal of internal Outfall 201. Additionally, this other requirement requires the permittee to maintain a record of when discharges occur from what was formally known as internal Outfall 201.

X. DRAFT PERMIT RATIONALE

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

A. REASON FOR PERMIT ISSUANCE

The applicant applied to the TCEQ for a renewal of Permit No. WQ0000749000, which authorizes the discharge of treated process wastewater, incinerator wastewater, groundwater, treated domestic wastewater, non-process wastewater, and treated stormwater (previously monitored at Outfalls 101 and 201) on an intermittent and flow-variable basis via Outfall 001, and storm water on an intermittent and flow variable basis via Outfalls 002, 003, 004, 005, and 006.

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

B. WATER QUALITY SUMMARY

Discharge Routes
The discharge route is via Outfalls 001, 003, and 004 to unnamed ditches, thence to Harris County Flood Control District (HCFCD) ditch P104-00-00, thence to Greens Bayou Tidal portion of the Houston Ship Channel; and via Outfalls 002, 005 and 006 to HCFCD ditch P104-00-00, thence to Houston Ship Channel Tidal in Segment No. 1006 of the San Jacinto River Basin. The unclassified receiving water uses are minimal aquatic life uses for the unnamed ditches and minimal aquatic life use for HCFCD ditch P104-00-00. The designated uses for Segment No. 1006 are navigation and industrial water supply. Effluent limitations and conditions established in the draft permit comply with state water quality standards and the applicable water quality management plan. The effluent limits in the draft permit will maintain and protect the existing instream uses. Additional discussion of the water quality aspects of the draft permit can be found at Section X.D. of this fact sheet.

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

Impaired Water Bodies
Segment No. 1006 is currently listed on the state's inventory of impaired and threatened waters, the 2022 Clean Water Act Section 303(d) list. The listings are for:

1. elevated bacteria in Goodyear Creek from its confluence with Greens Bayou Tidal to Granada Street in Harris County (Assessment Unit [AU] 1006_05);

2. dioxin and polychlorinated biphenyls (PCBs) in edible tissue in the Houston Ship Channel Tidal - From the Greens Bayou confluence to the Patrick Bayou confluence (AU 1006_01);

3. dioxin and PCBs in the Houston Ship Channel Tidal - From the Patrick Bayou confluence to the Houston Ship Channel/San Jacinto River Tidal (1005) confluence (AU 1006_02);

4. dioxin and PCBs in the Greens Bayou Tidal - From the Houston Ship Channel confluence to a point 0.7 km (0.4 mi) upstream of the Halls Bayou confluence (AU 1006_03);

5. dioxin and PCBs in the Patrick Bayou Tidal - From the confluence with the Houston Ship Channel to 100 m (328 ft) upstream of the railroad bridge (AU 1006_04);

6. dioxin and PCBs in Goodyear Creek – From the confluence with Greens Bayou Tidal to Granada Street in Harris County (AU 1006_05);

7. dioxin and PCBs in Tucker Bayou - From the Houston Ship Channel confluence to a point 2.7 km (1.7 mi) upstream (AU 1006_06);

8. dioxin and PCBs in Carpenters Bayou - From the Houston Ship Channel confluence to the lower boundary of 1006B (2.3 km/ 1.4 mi) upstream from the Houston Ship Channel confluence) (AU 1006_07); and

9. toxicity in sediment in Patrick Bayou Tidal (AU 1006_04).

This permit action is a renewal that will not increase the loadings of any pollutants and will remove the authorization to discharge process wastewater from the draft permit.

The Greens Bayou Plant will no longer be authorized to discharge treated domestic wastewater containing *Enterococci* bacterium into Greens Bayou Tidal following the installation of several on-site sewage facilities (OSSFs). These OSSFs, under normal operating conditions, will prevent the discharge of bacteria from the facility and are not expected to contribute to the elevated levels of bacteria in Goodyear Creek.

Dioxin and PCBs were not detected in the analytical data of the discharges made via Outfall 001. Additionally, this facility does not use or manufacture dioxin or PCBs onsite. While Outfalls 002, 003, 004, 005, and 006 were not analyzed for dioxin or PCBs, these pollutants are not expected to be found in the stormwater following the cleanup of stormwater contact areas. Because of these reasons, dioxin and PCBs (banned by the EPA in 1979) are not expected to contribute to the impairments of the receiving segment.

The discharge via Outfall 001 was screened for toxic pollutants in the water quality-based effluent limitation screening found in Appendix B of this statement of basis. The toxic pollutants identified in the listing for Patrick Bayou Tidal in particular includes;

> pesticides, polycyclic aromatic hydrocarbons, cadmium, mercury, nickel, zinc, PCBs, arsenic, chromium, copper, lead, manganese, selenium, hexachlorobenzene, and bis-2-ethylhexyl phthalate.

The discharge of these toxic pollutants via Outfall 001 were all within acceptable levels when compared to the calculated water quality-based effluent limitations for the receiving segment, found in Appendix B.

The discharge of the toxic pollutants that were recorded in Worksheet 7.0 of the application for Outfalls 002, 003, 004, 005, and 006, were all within acceptable levels when compared to the effluent limitations found in 30 TAC Chapter 319.

Finally, the draft permit also includes whole effluent toxicity testing at Outfall 001, which directly measures the aggregate toxicity of the wastewaters discharged from former process areas. For these reasons and the reasons above, the discharges from this facility are not expected to contribute to the toxicity in sediment impairment of Patrick Bayou Tidal.

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

There are no applicable completed TMDLs for Segment No. 1006.

C. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. GENERAL COMMENTS

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

The draft permit authorizes the discharge of remediated groundwater and stormwater via Outfall 001 on an intermittent and flow-variable basis, and the discharge of stormwater runoff via Outfalls 002, 003, 004, 005, and 006 on an intermittent and flow-variable basis.

The site formerly manufactured agricultural, specialty, and industrial inorganic chemicals. Since the previous TPDES permit was renewed in 2019, all manufacturing and production related activities have been terminated. Between 2019-2021, the facility was decommissioned and demolished. Current site operations related to the TPDES permit includes the Groundwater Remediation Unit (GRU) and stormwater discharges.

The discharges of remediated groundwater and stormwater via Outfall 001; and the discharges of stormwater via Outfalls 002, 003, 004, 005, and 006 are not subject to federal effluent limitation guidelines and any technology-based effluent limitations are based on best professional judgment. To protect against legacy pollutants in the discharge of remediated groundwater from the facility, technology-based effluent limitations have been implemented in the draft permit based on BPJ.

Groundwater Remediation Unit (GRU) – Outfall 001

Various environmental remediation projects at the site generate recovered groundwater. Groundwater is transferred from multiple on-site well pump systems to the Equalization Tank (AT-500). From there, recovered groundwater is routed to the GRU for treatment. A small amount of wastewater from a lab sink in the GRU control room building, for cleaning laboratory glassware and washing hands only, is also routed to the Equalization Tank.

The GRU treated effluent is monitored at Internal Outfall 101. The effluent from Outfall 101 commingles with any stormwater from Outfall 201 at External Outfall 001.

The GRU includes the following processes.

- Continuous Precipitation System (CPS)
- Multi-Media Filtration (MMF)
- Manganese Selective media (DMI)
- Granular Activated Carbon (GAC)
- Arsenic Selective Media (ASG)
- Effluent Storage and Discharge

- CPS Sludge Dewatering

Continuous Precipitation System (CPS)

The CPS consists of a multi-compartment tank with two chemical reaction chambers, flocculation section, clarifier, two sludge holding chambers, and effluent clear well chamber in a series. Chambers 1 and 2 have continuously operating mechanical mixers, and chamber 3 has a large paddle wheel mixer. Chambers 1, 2, and 7 contain on-line pH sensors and chamber 1 contains an oxidation reduction potential sensor. The first chamber is used to oxidize trivalent arsenic, As(III), to pentavalent arsenic, As(V), with the addition of sodium hypochlorite (bleach). Ferric chloride is added to chamber 1 to hydrolyze with the arsenic in the water. The added ferric chloride forms iron (III) hydroxide which adsorbs the arsenic in the solution. The second chamber promotes precipitation of As(V) with the addition of sodium hydroxide (caustic) to neutralize the acidity within the chamber and promote iron-arsenic adsorption.

Solid particles generated within the two reaction chambers flow into a slow mix flocculation chamber, where an anionic polymer flocculant and low shear, low speed paddle-wheel mixer promote larger and faster settling particles. The polymer is diluted with water, aged in a mixed day tank, and injected into the flocculation chamber.

Flocculated groundwater flows into the clarifier chamber. The clarifier chamber includes an inclined tube clarifier with automated sludge removal controls, sludge removed from the clarifier chamber is sent to two sludge holding chambers (chambers 5 and 6) and then subsequently to the Sludge Tank (T-514). While in the sludge holding chamber, the sludge will thicken slightly due to further settling and compaction. The clarified groundwater flows into the effluent clear well chamber.

Multi-media Filtration (MMF)

The CPS clear well effluent is pumped to a MMF unit for additional solids removal. The MMF consists of two parallel downflow multi-media filters. The filters are backwashed with water from the Backwash Tank (T1047). The media filters are designed to operate in parallel during normal operation. While one media filter is being backwashed the other media filter will process the entire flow. The backwash effluent is routed to Equalization Tank (AT-500).

DMI-65 Manganese Removal

Effluent from the MMF unit is pumped to the DMI-65 filter unit for the removal of manganese. Sodium hypochlorite (bleach) is added to oxidize manganese while flowing through the DMI-65 unit, consisting of three parallel vessels containing DMI-65 catalytic filtration media designed to remove oxidized manganese and iron. Filtered water is returned to the main process line ahead of the GAC/ASG header. When a DMI-65 vessel is backwashed, all process water is sent through two of the vessels while one is being backwashed with industrial water. Backwash is routed to the Sludge Tank (T-514). Solids settle out within the tank and are then transferred to the filter press with the CPS solids. Water is decanted from

the Sludge Tank using the existing process for decanting water from the CPS solids in the tank.

Granular Activated Carbon (GAC)

The GAC system is designed to remove organic pollutants from the filtered groundwater, utilizing five pairs of two pressure vessel units. The five pairs operate in parallel with the two vessels of each pair operating in series. Piping allows for either vessel in a pair to be placed in lead or lag position when individual vessels are changed out for off-site reactivation.

Arsenic Selective Media (ASG)

Two pairs of ASG vessels operate in parallel (pairs) and series (vessels in each pair), similarly to the GAC vessels. The ASG vessels contain aluminum periodate oxidation filter media designed to oxidize any As(III) remaining in the water into As(V), it then captures and removes the As(V). The effluent from the GAC units passes through the ASG units and discharges to the Effluent Tank (T-1048). Once the lead vessel in a pair indicates arsenic breakthrough it is replaced with a new media vessel, and the configuration is reversed between lead and lag units. The spent media is disposed of offsite as a solid waste.

Effluent Holding and Discharge

Groundwater from the ASG units flows into the Effluent Tank (T-1048). T-1048 allows buffering and blending of the treated GRU effluent and to periodically check that arsenic concentrations are within discharge limits. The treated effluent is transferred to Internal Outfall 101. If the effluent is not sufficiently treated for discharge, the pump discharge may be returned instead to the Equalization Tank (AT-500) for reprocessing.

CPS Sludge Dewatering

Sludge from the CPS is stored in the Sludge Tank (T-514) until enough sludge is accumulated to perform a dewatering run through the filter press. The filtrate is returned to the Equalization Tank (AT-500) and the solids are sent off-site as a waste.

Stormwater Retention Basin – Outfall 001

Stormwater is transported via feeder pipes from catch basins to the main trunk line sewers that empty into the collection ditch at the center of the site. Stormwater from the collection ditch flows through two culverts to a 9-million-gallon Stormwater Retention Basin. Stormwater is discharged from the basin and monitored at Internal Outfall 201. Stormwater from Outfall 201 is comingled with the discharge from Internal Outfall 101, and the commingled discharge is monitored at Outfall 001. When there is no stormwater discharge from Outfall 201 the Outfall 101 discharge is the sole contributor to Outfall 001.

Sanitary Wastewater Treatment

Sanitary (domestic) wastewater is treated in a separate on-site sewage facility (OSSF) that is authorized under a Harris County permit. The OSSF is an aerobic sewage treatment system that uses spray irrigation for the treated effluent. Sanitary wastewater was previously treated in a sanitary treatment package (STP) unit with the treated effluent commingled with other wastewater routed to Outfall 001. The STP unit was decommissioned and closed after treatment was transferred to the OSSF. Wastewater from a lab sink in the GRU control room building, for cleaning laboratory glassware and washing hands only, was previously routed to the STP, but is now routed to the Equalization Tank (AT-500) for treatment in the GRU unit.

Stormwater Outfalls

Stormwater Outfalls 002, 003, 004, 005, and 006 are described in the following sections.

Outfall 002

The drainage area of stormwater Outfall 002 includes a closed, capped landfill with a groundwater recovery system. The landfill area is referred to as Area 5 on facility maps. Groundwater from the recovery wells flows through an aboveground pipe manifold, which in turn flows to a groundwater collection facility. The area has a regular maintenance program in place for both erosion of the landfill cap and maintenance of the groundwater recovery system. The recovery system is contained by curbs and dikes. Stormwater within this containment area is transferred to the groundwater recovery tanks.

The potential for stormwater in the Outfall 002 drainage area to be in contact with contaminants is low because the landfill is capped and the equipment within the groundwater recovery system that has the greatest potential for spills and leaks is within a containment area.

Outfall 003

The drainage area of stormwater Outfall 003 includes truck traffic. The drainage area for Outfall 003 includes Area 1 and Area 2. No trucks are allowed to wash out or discharge any surplus materials on the Site. All vehicles utilized in-plant are regularly inspected for leaks and receive scheduled preventive maintenance to reduce the chance of leaking. Spill kits are located throughout the facility and regular inspection of these kits is done to ensure they each have complete spill response supplies. All spills are cleaned up immediately and, for any spill large enough to potentially reach the storm drain, the procedures for reporting and response are followed.

Outfall 004

The drainage area of stormwater Outfall 004 covers Area 3. This area includes former sludge drying beds, which were cleaned and capped and closed in 1985 in accordance with Texas Water Commission (TWC) requirements. All areas of runoff have erosion protection that is maintained on a regular basis. Wastewater

treatment areas bordering the drainage area, but outside of it, are designed to retain their own stormwater.

Outfall 005 and 006

Area 7 has a drainage area that discharges at two different points located close together (40 feet) and designated as Outfalls 005 and 006. The drainage area includes a former landfill area that was closed in 1981 in accordance with TWC requirements. The area also includes several groundwater recovery wells for the landfill that flow into an aboveground pipe manifold. Outfall 005 discharges through a swale along the east side. Outfall 006 discharges through a sewer inlet on the west side.

The facilities in the area are regularly inspected. The groundwater piping is under a vacuum, which reduces the likelihood of spills and leaks.

2. CALCULATIONS

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

Outfall 001: The technology-based effluent limitations for daily maximum oil & grease, DCPA [Dacthal], and pH limits of 6.0 and 9.0 SU are carried forward in the draft permit at Outfall 001 based on EPA's anti-backsliding regulations at 40 CFR § 122.44(l).

The following technology-based effluent limitations are carried forward in the draft permit from internal Outfall 201 to Outfall 001 based on EPA's anti-backsliding regulations at 40 CFR § 122.44(l): TOC and chlorothalonil.

Outfall 101: The following technology-based effluent limitations are continued from the existing permit at Internal Outfall 101 based on EPA's anti-backsliding regulations at 40 CFR § 122.44(l):

BOD_5, TSS, ammonia (as nitrogen), TOC, COD, total arsenic, total cyanide, acenaphthene, acenaphthylene, acrylonitrile, anthracene, benzene, benzo(*a*)anthracene, 3,4-benzofluoranthene [benzo(*b*)fluoranthene], benzo(*k*)fluoranthene, benzo(*a*)pyrene, bis(2-ethylhexyl) phthalate, bromodichloromethane [dichlorobromomethane], bromomethane, chlorobenzene, chloroethane, chloromethane [methyl chloride], 2-chlorophenol, chlorothalonil [Daconil], chrysene, dibromochloromethane [chlorodibromomethane], di-*n*-butyl phthalate, 1,2-dichlorobenzene, 1,3-dichlorobenzene, 1,4-dichlorobenzene, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethylene, 1,2-*trans*-dichloroethylene, dichloromethane [methylene chloride], 2,4-dichlorophenol, 1,2-dichloropropane, 1,3-dichloropropene [1,3-dichloropropylene], diethyl phthalate, 2,4-dimethylphenol, dimethyl phthalate, 4,6-dinitro-*o*-cresol, 2,4-dinitrophenol, 2,4-dinitrotoluene, 2,6-dinitrotoluene, ethylbenzene, fluoranthene, fluorene, hexachlorobutadiene, hexachloroethane, naphthalene, nitrobenzene, 2-nitrophenol, 4-nitrophenol, phenanthrene, phenol, pyrene, tetrachloroethylene, tetrachloromethane [carbon tetrachloride], toluene, tribromomethane [bromoform], 1,2,4-trichlorobenzene, 1,1,1-trichloroethane,

1,1,2-trichloroethane, trichloroethylene, trichloromethane [chloroform], and vinyl chloride.

The calculated technology-based effluent limitations were compared to the mass-based equivalents of the technology-based effluent limitations in the existing permit at Outfall 101 (See Appendix D). The calculated technology-based effluent limitations for this permit action were more stringent than the existing technology-based effluent limitations for the following parameters:

Acenaphthene, Acenaphthylene, Acrylonitrile, Anthracene, Benzo(a)anthracene, 3,4-Benzofluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Bis(2-ethylhexyl) phthalate, Chrysene, Di-n-butyl Phthalate, Diethyl Phthalate, Fluoranthene, Fluorene, Naphthalene, Phenanthrene, Pyrene, Toluene, and Vinyl Chloride.

Outfalls 002-006: The technology-based effluent limitations for TOC, oil and grease, and pH are carried forward in the draft permit at Outfalls 002-006 based on EPA's anti-backsliding regulations at 40 CFR § 122.44(l).

Analytical data reported in the application was screened against the maximum metal concentrations for tidal waters found in 30 TAC § 319.23. The concentrations of total mercury at Outfalls 003 and 004 exceeded 70% of the daily average limit in 30 TAC § 319.23. However, for the purposes of this renewal application, only one sample was analyzed for the parameters included in tables 17 and 18 of Worksheet 7.0. As a result, a re-test requirement for total mercury has been included in Other Requirement No. 11 of the draft permit.

The following technology-based effluent limitations are proposed in the draft permit:

Outfall	Pollutant	Daily Average *mg/L*	Daily Maximum *mg/L*
001	Oil and Grease	N/A	15
	Arsenic, Total	N/A	0.6
	Chlorothalonil [Daconil]	N/A	0.6
	DCPA [Dacthal]	N/A	0.168
	TOC	N/A	55
	pH	6.0 SU, min	9.0 SU

Outfall	Pollutant	Daily Average mg/L	Daily Maximum mg/L
101	*Conventionals*		
	BOD_5	24.0	66.6
	TSS	28.6	66.6
	Ammonia, as Nitrogen	2.7	5.3
	TOC	85	170
	COD	155	251
	Metals and Cyanide		
	Arsenic, Total	0.2	0.3
	Cyanide, Total	0.130	0.377
	Organics/Pesticides		
	Acenaphthene	0.001	0.003

Outfall	Pollutant	Daily Average mg/L	Daily Maximum mg/L
101	Acenaphthylene	0.001	0.003
	Acrylonitrile	0.007	0.017
	Anthracene	0.001	0.003
	Benzene	0.023	0.086
	Benzo(*a*)anthracene	0.001	0.003
	3,4-Benzofluoranthene [Benzo(*b*)fluoranthene]	0.001	0.004
	Benzo(*k*)fluoranthene	0.001	0.003
	Benzo(*a*)pyrene	0.001	0.004
	Bis(2-ethylhexyl) phthalate	0.007	0.019
	Bromodichloromethane [Dichlorobromomethane]	0.079	0.212
	Bromomethane	0.079	0.212
	Chlorobenzene	0.009	0.018
	Chloroethane	0.008	0.020
	Chloromethane [Methyl Chloride]	0.022	0.049
	2-Chlorophenol	0.020	0.062
	Chlorothalonil [Daconil]	0.007	0.023
	Chrysene	0.001	0.003
	Dibromochloromethane [Chlorodibromomethane]	0.109	0.444
	Di-*n*-butyl phthalate	0.001	0.003
	1,2-Dichlorobenzene	0.049	0.103
	1,3-Dichlorobenzene	0.002	0.003
	1,4-Dichlorobenzene	0.009	0.018
	1,1-Dichloroethane	0.002	0.004
	1,2-Dichloroethane	0.043	0.134
	1,1-Dichloroethylene	0.010	0.016
	1,2-*trans*-Dichloroethylene	0.013	0.034
	Dichloromethane [Methylene Chloride]	0.025	0.056
	2,4-Dichlorophenol	0.025	0.071
	1,2-Dichloropropane	0.097	0.146
	1,3-Dichloropropene [1,3-Dichloropropylene]	0.018	0.028
	Diethyl phthalate	0.003	0.008
	2,4-Dimethylphenol	0.011	0.023
	Dimethyl phthalate	0.001	0.003
	4,6-Dinitro-*o*-cresol	0.006	0.021
	2,4-Dinitrophenol	0.005	0.009
	2,4-Dinitrotoluene	0.008	0.021
	2,6-Dinitrotoluene	0.019	0.048
	Ethylbenzene	0.020	0.068
	Fluoranthene	0.002	0.004
	Fluorene	0.001	0.003
	Hexachlorobutadiene	0.001	0.004
	Hexachloroethane	0.002	0.004

Outfall	Pollutant	Daily Average mg/L	Daily Maximum mg/L
101	Naphthalene	0.014	0.036
	Nitrobenzene	0.002	0.005
	2-Nitrophenol	0.003	0.005
	4-Nitrophenol	0.005	0.009
	Phenanthrene	0.001	0.003
	Phenol	0.009	0.017
	Pyrene	0.001	0.004
	Tetrachloroethylene	0.014	0.035
	Tetrachloromethane [Carbon Tetrachloride]	0.011	0.024
	Toluene	0.017	0.050
	Tribromomethane [Bromoform]	0.109	0.444
	1,2,4-Trichlorobenzene	0.005	0.010
	1,1,1-Trichloroethane	0.013	0.034
	1,1,2-Trichloroethane	0.002	0.004
	Trichloroethylene	0.002	0.004
	Trichloromethane [Chloroform]	0.013	0.029
	Vinyl Chloride	0.007	0.013

Outfall	Pollutant	Daily Average, mg/L	Daily Maximum, mg/L
002	TOC	N/A	55
	Oil and Grease	N/A	15
	pH	6.0 SU, min	9.0 SU
003	TOC	N/A	55
	Oil and Grease	N/A	15
	pH	6.0 SU, min	9.0 SU
004	TOC	N/A	55
	Oil and Grease	N/A	15
	pH	6.0 SU, min	9.0 SU
005	TOC	N/A	55
	Oil and Grease	N/A	15
	pH	6.0 SU, min	9.0 SU
006	TOC	N/A	55
	Oil and Grease	N/A	15
	pH	6.0 SU, min	9.0 SU

3. 316(B) COOLING WATER INTAKE STRUCTURES

a. SCREENING

The facility was formerly authorized to discharge cooling water via Outfall 001. As indicated by the application, the facility no longer utilizes cooling water for facility processes and groundwater remediation activites.

b. PERMIT ACTION

Other Requirement No. 3 has been removed from the existing permit to reflect the cessation of cooling water discharges onsite.

D. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. GENERAL COMMENTS

The *Texas Surface Water Quality Standards* found at 30 TAC Chapter 307 state that surface waters will not be toxic to man from ingestion of water, consumption of aquatic organisms, or contact with the skin, or to terrestrial or aquatic life. The methodology outlined in the TCEQ guidance document *Procedures to Implement the Texas Surface Water Quality Standards* (IPs) is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health. Calculated water quality-based effluent limits can be found in Appendix B of this fact sheet.

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

2. AQUATIC LIFE CRITERIA

a. SCREENING

Outfall 001
Water quality-based effluent limitations are calculated from saltwater aquatic life criteria found in Table 1 of the *Texas Surface Water Quality Standards* (30 TAC Chapter 307).

There is no mixing zone or zone of initial dilution (ZID) for this discharge directly to the unnamed ditch, an intermittent stream; acute freshwater criteria apply at the end of pipe. Acute and chronic saltwater criteria are applied in the bay, estuary, or wide tidal river.

For the intermittent stream, the percent effluent for acute protection of aquatic life is 100% because the seven-day, two-year low-flow (7Q2) of the intermittent stream is 0.0 cfs. TCEQ practice is to establish minimum estimated effluent percentages for discharges that are 10 MGD or less into bays, estuaries, and wide tidal rivers that are at least 400 feet wide. These critical effluent percentages are as follows:

Acute Effluent % (ditches)	100 %
Acute Effluent % (Greens Bayou Tidal)	30 %
Chronic Effluent % (Greens Bayou Tidal)	8 %

Outfalls 002, 003, 004, 005, and 006
Aquatic life screening is not applicable because TPDES stormwater permits generally do not contain water quality-based effluent limitations. This is because critical low flow conditions, which are used to calculate water quality-based effluent limitations, do not occur during rainfall events.

As stated in 30 TAC § 307.8(e), controls on the quality of permitted stormwater discharges are largely based on implementing best management practices and technology-based limits. Stormwater quality is compared to the allowable concentrations of metals found in 30 TAC § 319.22 to ensure that those concentrations are not exceeded.

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

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

Ditches: From the WLA, an LTA is calculated using a lognormal probability distribution, a given coefficient of variation (0.6), and a 90th percentile confidence level. The LTA is the long-term average effluent concentration for which the WLA will never be exceeded using a selected percentile confidence level.

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

For the ditches, assumptions used in deriving the effluent limitations include the segment-specific value for TSS according to the *IPs*. Values from Segment No. 1016 (freshwater) were used as follows: 65 mg/L for hardness (as calcium carbonate, $CaCO_3$), 81 mg/L for chloride, 7.5 standard units for pH, and 10 mg/L for TSS. For additional details on the calculation of water quality-based effluent limitations, refer to the *IPs*.

For Greens Bayou Tidal (Segment No. 1006), assumptions used in deriving the effluent limitations include the segment-specific value for TSS according to the *IPs*. The segment value is 9 mg/L for TSS. For

additional details on the calculation of water quality-based effluent limitations, refer to the *IPs*.

TCEQ practice for determining significant potential is to compare the reported analytical data against percentages of the calculated daily average water quality-based effluent limitation. Permit limitations are required when analytical data reported in the application equals or exceeds 85 percent of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application equals or exceeds 70 percent of the calculated daily average water quality-based effluent limitation.

b. PERMIT ACTION

Outfall 001

Evaluation of Application Data
Analytical data reported in the application was screened against calculated water quality-based effluent limitations for the protection of aquatic life. Reported analytical data does not exceed 70 percent of the calculated daily average water quality-based effluent limitations for aquatic life protection. No additional limits or monitoring and reporting requirements have been added to the draft permit.

Evaluation of Self-Reported Data
Self-reported data was screened against calculated water quality-based effluent limitations for the protection of aquatic life. Reported analytical data does not exceed 70 percent of the calculated daily average water quality-based effluent limitations for aquatic life protection.

Comparison of Existing Limits and Recalculated Water Quality-Based Limits

The limits in the existing permit were compared to the calculated water quality-based effluent limits for the protection of aquatic life to determine whether the existing limits are still protective. The existing limits for total copper and total lead at Outfall 001 are less stringent than the calculated water quality-based effluent limits for aquatic life. The more stringent limits for total copper (0.23 mg/L daily average and 0.049 mg/L daily maximum), along with the more stringent limits for total lead (0.154 mg/L daily average and 0.326 mg/L daily maximum), have been implemented in the draft permit.

Because the updated effluent limitations for total copper and total lead are only fractionally more stringent than the existing effluent limitations, no compliance period has been implemented for these parameters.

Outfalls 002, 003, 004, 005, and 006
These outfalls were not screened against calculated water quality-based effluent limitations for aquatic life because these outfalls discharge uncontaminated stormwater only. Critically low flow conditions, which are required to calculate water quality-based effluent limitations, do not

occur during precipitation events. As stated in 30 TAC §307.8(e), controls on the quality of permitted stormwater discharges are largely based on implementing best management practices and technology-based limits.

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

a. SCREENING AND REASONABLE POTENTIAL ANALYSIS

The existing permit includes chronic marine biomonitoring requirements at Outfall 001. The existing permit did not establish biomonitoring requirements via Outfalls 002, 003, 004, 005, and 006, and discharges authorized via these outfalls do not meet the threshold established in the *Procedures to Implement the Texas Surface Water Quality Standards* (RG-194) to impose biomonitoring requirements.

In the past three years, the permittee has performed twenty-four chronic tests, with zero demonstrations of significant toxicity (i.e., zero failures). In accordance with anti-backsliding requirements found in 40 CFR § 122.44(l), the lethal WET limit for both test species at Outfall 001 are carried forward in the draft permit.

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

With zero failures, a determination of no RP was made. Additional (sublethal) WET limits are not required, and both test species may be eligible for the testing frequency reduction after one year of quarterly testing.

b. PERMIT ACTION

The provisions of this section apply to Outfall 001.

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

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

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

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

Toxicity tests shall be performed in accordance with protocols described in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms,* Third Edition (EPA-821-R-02-014) or the latest revision. The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the state water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge.

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

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

c. DILUTION SERIES

The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 3%, 5%, 6%, 8%, and 11%. The low-flow effluent concentration (critical dilution) is defined as 001% effluent.

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

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

a. SCREENING

The existing permit includes 24-hour acute marine biomonitoring requirements for Outfall 001. The existing permit did not establish biomonitoring requirements via Outfalls 002, 003, 004, 005, and 006, and discharges authorized via these outfalls do not meet the threshold established in the *Procedures to Implement the Texas Surface Water Quality Standards* (RG-194) to impose biomonitoring requirements.

In the past three years, the permittee has performed twelve 24-hour acute tests, with zero demonstrations of significant lethality (i.e., zero failures). In accordance with anti-backsliding requirements found in 40 CFR § 122.44(l), the 24-hour acute WET limit for the mysid shrimp has been continued in the draft permit.

Minimum 24-hour acute marine biomonitoring requirements are proposed in the draft permit as outlined below.

b. PERMIT ACTION

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

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

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

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

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

5. AQUATIC ORGANISM BIOACCUMULATION CRITERIA

a. SCREENING

Outfall 001
Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of fish tissue found in Table 2 of the *Texas Surface Water Quality Standards* (30 TAC Chapter 307).

Fish tissue bioaccumulation criteria are applied in the bay, estuary, or wide tidal river for a discharge to an intermittent stream that enters a bay, estuary, or wide tidal river within 3 miles downstream of the discharge point. TCEQ practice is to establish a minimum estimated effluent percentage for discharges that are 10 MGD or less into bays, estuaries, and wide tidal rivers that are at least 400 feet wide. This critical effluent percentage is:

Human Health Effluent %: 4%

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

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

Outfalls 002, 003, 004, 005, and 006

These outfalls were not screened against calculated water quality-based effluent limitations for human health because these outfalls discharge uncontaminated stormwater only. Critically low flow conditions, which are required to calculate water quality-based effluent limitations, do not occur during precipitation events. As stated in 30 TAC §307.8(e), controls on the quality of permitted stormwater discharges are largely based on implementing best management practices and technology-based limits.

b. PERMIT ACTION

Outfall 001

Evaluation of Application Data

Analytical data reported in the application was screened against calculated water quality-based effluent limitations for the protection of human health. Reported analytical data does not exceed 70 percent of the calculated daily average water quality-based effluent limitation for human health protection. No additional limits or monitoring and reporting requirements have been added to the draft permit.

Evaluation of Self-Reported Data

Self-reported data was screened against calculated water quality-based effluent limitations for the protection of human health. Reported analytical data does not exceed 70 percent of the calculated daily average water quality-based effluent limitation for human health protection.

Comparison of Existing Limits and Recalculated Water Quality-Based Limits

The existing effluent limitations for hexachlorobenzene at Outfall 001 are less stringent than the calculated water quality-based effluent limitations for human health. To ensure the effluent limitations in the draft permit

are protective of human health, updated effluent limitations for hexachlorobenzene (0.000023 mg/L daily average and 0.000049 mg/L daily maximum) have been implemented in the draft permit at External Outfall 001.

Equivalent mass limits were calculated in order to directly compare the calculated water quality-based effluent limits for Outfall 001 to the technology-based effluent limits at internal Outfall 101, which are in mass units. The effluent flow used for limits based on human health criteria is 0.9 MGD. See Appendix B for calculations.

The existing technology-based effluent limitations for benzo(a)anthracene and benzo(a)pyrene at Internal Outfall 101 are less stringent than the calculated water quality-based effluent limitations for human health. To ensure the effluent limitations in the draft permit are protective of water quality, updated effluent limitations for benzo(a)anthracene (0.0009 mg/L daily average and 0.002 mg/L daily maximum) and benzo(a)pyrene (0.00009 mg/L daily average and 0.0002 mg/L daily maximum) have been implemented in the draft permit at External Outfall 001.

Outfalls 002, 003, 004, 005, and 006
None.

6. DRINKING WATER SUPPLY PROTECTION

a. SCREENING

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

b. PERMIT ACTION

None.

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

a. SCREENING

Outfall 001
The average concentration of chloride in the effluent is greater than the segment criterion. Screening procedures and effluent limitations for TDS, chloride, and sulfate are calculated using the methodology in the *IPs* and criteria in the *Texas Surface Water Quality Standards* (30 TAC Chapter 307). Detailed calculations are presented in Appendix C.

Outfalls 002, 003, 004, 005, 006
Outfalls 002, 003, 004, 005, and 006 discharge uncontaminated stormwater. In accordance with Table 17 of worksheet 7.0 in the application, outfalls which discharge uncontaminated stormwater are not

required to be tested for total dissolved solids, chloride, and sulfate. Therefore, TDS, chloride and sulfate screenings were not conducted for these outfalls.

b. PERMIT ACTION

Based on the screening, in accordance with recommendations from the Standards Implementation Team, monitoring and reporting requirements for chloride have been added to the draft permit at Outfall 001.

8. PROTECTION OF pH STANDARDS

a. SCREENING

The existing permit includes pH limits of 6.0 – 9.0 standard units at Outfalls 001, 002, 003, 004, 005, and 006, which discharge into unclassified water bodies. Consistent with the procedures for pH screening that were submitted to EPA with a letter dated May 28, 2014, and approved by EPA in a letter dated June 2, 2014, requiring a discharge to an unclassified water body to meet pH limits of 6.0 – 9.0 standard units reasonably ensures instream compliance with *Texas Surface Water Quality Standards* pH criteria.

b. PERMIT ACTION

The existing pH limits of 6.0 – 9.0 standard units are carried forward in the draft permit at Outfalls 001, 002, 003, 004, 005, and 006.

9. DISSOLVED OXYGEN PROTECTION

a. SCREENING

Only Outfall 101 contains significant concentrations of oxygen demanding constituents. A dissolved oxygen analysis for Outfall 101 was conducted using an updated version of the calibrated QUAL-TX model documented in the *Waste Load Evaluation WLE-1R for the Houston Ship Channel System* (September 2006).

Based on model results, the existing effluent limits of 0.9 MGD for flow, with limits of 180 lbs/day of BOD_5, and 20 lbs/day of NH_3-N for Outfall 101 are predicted to be adequate to maintain dissolved oxygen levels above the criteria stipulated by the Standards Implementation Team for the unnamed ditch (2.0 mg/L), Houston County Flood Control District ditch P104-00-00 (2.0 mg/L), and Segment No. 1006 (2.0 mg/L).

Coefficients and kinetics used in the model are a combination of site specific, standardized default, and estimated values. The results of this evaluation can be reexamined upon receipt of information that conflicts with the assumptions employed in this analysis.

b. PERMIT ACTION

The existing daily average limits of 0.9 MGD for flow, 180 lbs/day (of BOD_5, and 20 lbs/day of NH_3-N have been converted to concentration-based daily average limits of 24 mg/L and 2.7 mg/L respectively. These limits are equivalently stringent and have been carried forward at internal Outfall 101 in the draft permit.

10. BACTERIA STANDARDS PROTECTION

a. SCREENING

Over the course of the previous permit cycle, the Greens Bayou Plant has stopped discharging treated domestic wastewater via Outfalls 101 and 001. The facility has transferred the treatment of all domestic wastewater generated onsite to several OSSFs. These OSSFs will, under normal operating conditions, prevent the discharge of bacteria from the facility to the receiving segment. For this reason, no screening for *Enterococci* was conducted for this permit action.

b. PERMIT ACTION

The Greens Bayou Plant will no longer be authorized to discharge treated domestic wastewater containing *Enterococci* bacterium. As a result *Enterococci* limits have been removed from Outfall 101.

XI. PRETREATMENT REQUIREMENTS

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

XII. VARIANCE REQUESTS

No variance requests have been received.

XIII. PROCEDURES FOR FINAL DECISION

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

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

comments. The applicant must place a copy of the Executive Director's preliminary decision and draft permit in the public place with the application.

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

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

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

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

For additional information about this application, contact Alexander Owens at (512) 239-6707.

XIV. ADMINISTRATIVE RECORD

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

A. PERMIT(S)

TPDES Permit No. WQ0000749000 issued on March 27, 2019.

B. APPLICATION

TPDES wastewater permit application received on September 28, 2023 and additional information received on December 14, 2023, May 8, 2024, May 10, 2024, and January 9, 2026.

C. 40 CFR CITATION(S)

40 CFR Parts 414, 415, and 455 (BPT, BCT, BAT [using BPJ]).

D. LETTERS/MEMORANDA/RECORDS OF COMMUNICATION

Letter dated April 29, 2014, from L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ, to Bill Honker, Director, Water Quality Protection Division, EPA (TCEQ proposed development strategy for thermal evaluation procedures).

Letter dated May 12, 2014, from William K. Honker, P.E., Director, Water Quality Protection Division, EPA, to L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ (Approval of TCEQ proposed development strategy for thermal evaluation procedures).

Letter dated May 28, 2014, from L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ, to Bill Honker, Director, Water Quality Protection Division, EPA (TCEQ proposed development strategy for pH evaluation procedures).

Letter dated June 2, 2014, from William K. Honker, P.E., Director, Water Quality Protection Division, EPA, to L'Oreal W. Stepney, P.E., Deputy Director, Office of Water, TCEQ (Approval of TCEQ proposed development strategy for pH evaluation procedures).

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

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

TCEQ Interoffice Memorandum dated January 13, 2026, from M. A. Wallace of the Standards Implementation Team, Water Quality Assessment Section, to the Industrial Permits Team, Industrial Wastewater Section (Standards Memo).

TCEQ Interoffice Memorandum dated January 12, 2024, from Brian Christman of the Water Quality Assessment Team, Water Quality Assessment Section, to the Industrial Permits Team, Industrial Wastewater Section (Critical Conditions Memo).

TCEQ Interoffice Memorandum dated January 17, 2024, from Josi Robertson of the Water Quality Assessment Team, Water Quality Assessment Section, to the Industrial Permits Team, Industrial Wastewater Section (Modeling Memo).

TCEQ Interoffice Memorandum dated January 17, 2024, from Michael B. Pfeil of the Standards Implementation Team, Water Quality Assessment Section, to the Industrial Permits Team, Industrial Wastewater Section (Biomonitoring Memo).

Electronic mail dated April 24, 2024, May 31, 2024, and January 9, 2026, from Alexander Owens of the Industrial Permits Team, Industrial Wastewater Section, to Dianna Kocurek, P.E., Tischler/Kocurek; Ken Rike, Remediation Manager, Syngenta Crop Protection, LLC.; and Mike Hassett, Remediation Manager, Syngenta Crop Protection, LLC (*NOD for Permit No. WQ0000749000*).

E. MISCELLANEOUS

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

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

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

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

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

Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, Fourth Edition (EPA-821-R-02-013).

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

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

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

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

Appendix A
Calculated Technology-Based Effluent Limits

Description of Waste Streams

The existing permit authorized the discharge of treated process wastewater, treated domestic wastewater, non-process wastewater, and incinerator wastewater via internal Outfall 101 and treated stormwater via internal Outfall 201, on an intermittent and flow-variable basis via Outfall 001; and stormwater on an intermittent and flow-variable basis via Outfalls 002, 003, 004, 005, and 006.

The draft permit will authorize the discharge of remediated groundwater, and non-process wastewater previously monitored at Internal Outfall 101, in addition to stormwater, which will be discharged on a flow-variable basis via Outfall 001; and stormwater on an intermittent and flow-variable basis via Outfalls 002, 003, 004, 005, and 006.

Internal Outfall 101

The applicant has removed all production units associated with the manufacture of agricultural, specialty, and industrial chemicals onsite. Currently the only process conducted at the facility is the remediation of contaminated groundwater for legacy pollutants associated with chemical manufacturing. The technology-based effluent limitations calculated below were recalculated and continued in the draft permit to ensure that legacy pollutants are treated to a level consistent with the production-based effluent limitations guidelines when the facility was in operation, at such time when legacy pollutants were generated.

Previous allocations for wastewaters identified as OCPSF process wastewaters were, in part, calculated using 40 CFR Part 414, Subpart I. Due to the removal of end-of-pipe biological treatment at the facility, 40 CFR Part 414 Subpart J was used to recalculate the technology-based effluent limitations associated with historical OCPSF operations.

Allocations for legacy wastewaters identified with former OCPSF processes were calculated based on the following ELGs:

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

Subpart H (*Specialty Organic Chemicals*) – 40 CFR § 414.81 (BPT). ELGs in 40 CFR § 414.82 (BCT) are reserved. ELGs in 40 CFR § 414.83 (BAT) are the same as BPT except for the addition of 40 CFR § 414.91.

Subpart J (*Direct Discharge Point Sources That Do Not Use End-of-Pipe Biological Treatment*) – 40 CFR § 414.101 (BAT)

Subpart H Calculations

Flows subject to Subpart H were carried over from the previous application when the facility was still in operation. The flows reported in the previous application subject to Subpart H were as follows:

Table 1-1

Process Wastewater	Flow (MGD)
Isophthalonitrile (IPN) process wastewater, cyanide and ammonia bearing	0.0144
Other IPN process wastewater	0.0504
IPN process area stormwater[1]	0.0022
Total =	0.0670

[1] According to the "Development Document for Effluent Limitations and Guidelines and Standards for Organic Chemicals, Plastics, and Synthetic Fibers Point Source Category, Vol. 1, EPA 440/1-87/009, October 1987, Table VII-50, page VII-157, contact rainwater (or process area stormwater) is considered to be a process wastewater for the purposes of allocating pollutant loads limited in 40 CFR Part 414.

The applicable concentration limits in the previous permit from 40 CFR Part 414, Subpart H are as follows:

Table 1-2

40 CFR 414 Subcategory	BOD_5 (mg/L)		TSS (mg/L)		pH (SU)	
	Dly Avg	Dly Max	Dly Avg	Dly Max	Dly Min	Dly Max
Subpart H	45	120	57	183	6.0	9.0

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

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

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

where 8.345 is a conversion factor.

BOD_5 dly avg = 45 mg/L × 0.0670 MGD × 8.345 = 25.160 lbs/day
BOD_5 dly max = 120 mg/L × 0.0670 MGD × 8.345 = 67.094 lbs/day
TSS dly avg = 57 mg/L × 0.0670 MGD × 8.345 = 31.870 lbs/day
TSS dly max = 183 mg/L × 0.0670 MGD × 8.345 = 102.318 lbs/day

Subpart J Calculations

Mass allocations for toxic pollutants (except total cyanide) were based on the total wastewater flow subject to 40 CFR Part 414 that received biological treatment (0.067 MGD). Mass allocations for total cyanide were based on the flow of cyanide-bearing wastewater (0.0144 MGD).

Total Permitted Daily Average Flow from Outfall 101:	0.90 MGD
Subpart J Process Wastewater Flow:	0.067 MGD
Metal-Bearing Wastewater Flow:	0 MGD
Cyanide-Bearing Wastewater Flow:	0.0144 MGD

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

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

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

* total process wastewater flow subject to 40 CFR Part 414 or cyanide-bearing flow, as appropriate

Single grab limits, which are expressed as concentrations, are calculated in Table 5-3 using total mass allocations from all sources.

Table 1-3

Parameter	Dly Avg (µg/L)	Dly Max (µg/L)	Dly Avg (lbs/day)	Dly Max (lbs/day)
Cyanide, total	420	1,200	0.050	0.144
Acenaphthene	19	47	0.011	0.026
Acenaphthylene	19	47	0.011	0.026
Acrylonitrile	94	232	0.053	0.130
Anthracene	19	47	0.011	0.026
Benzene	57	134	0.032	0.075
Benzo(*a*)anthracene	19	47	0.011	0.026
3,4-Benzofluoranthene	20	48	0.011	0.027

Table 1-3

Parameter	Dly Avg (µg/L)	Dly Max (µg/L)	Dly Avg (lbs/day)	Dly Max (lbs/day)
Benzo(*k*)fluoranthene	19	47	0.011	0.026
Benzo(*a*)pyrene	20	48	0.011	0.027
Bis(2-ethylhexyl) phthalate	95	258	0.053	0.144
Carbon Tetrachloride	142	380	0.079	0.212
Chlorobenzene	142	380	0.079	0.212
Chloroethane	110	295	0.062	0.165
Chloroform	111	325	0.062	0.182
2-Chlorophenol	31	98	0.017	0.055
Chrysene	19	47	0.011	0.026
Di-*n*-butyl Phthalate	20	43	0.011	0.024
1,2-Dichlorobenzene	196	794	0.110	0.444
1,3-Dichlorobenzene	142	380	0.079	0.212
1,4-Dichlorobenzene	142	380	0.079	0.212
1,1-Dichloroethane	22	59	0.012	0.033
1,2-Dichloroethane	180	574	0.101	0.321
1,1-Dichloroethylene	22	60	0.012	0.034
1,2-*trans*-Dichloroethylene	25	66	0.014	0.037
2,4-Dichlorophenol	39	112	0.022	0.063
1,2-Dichloropropane	196	794	0.110	0.444
1,3-Dichloropropylene	196	794	0.110	0.444
Diethyl Phthalate	46	113	0.026	0.063
2,4-Dimethylphenol	19	47	0.011	0.026
Dimethyl Phthalate	19	47	0.011	0.026
4,6-Dinitro-*o*-cresol	78	277	0.044	0.155
2,4-Dinitrophenol	1207	4291	0.675	2.399
2,4-Dinitrotoluene	113	285	0.063	0.159
2,6-Dinitrotoluene	255	641	0.143	0.358
Ethylbenzene	142	380	0.079	0.212
Fluoranthene	22	54	0.012	0.030
Fluorene	19	47	0.011	0.026
Hexachlorobenzene	196	794	0.110	0.444
Hexachlorobutadiene	142	380	0.079	0.212
Hexachloroethane	196	794	0.110	0.444
Methyl Chloride	110	295	0.062	0.165
Methylene Chloride	36	170	0.020	0.095
Naphthalene	19	47	0.011	0.026
Nitrobenzene	2237	6402	1.251	3.579
2-Nitrophenol	65	231	0.036	0.129
4-Nitrophenol	162	576	0.091	0.322
Phenanthrene	19	47	0.011	0.026
Phenol	19	47	0.011	0.026
Pyrene	20	48	0.011	0.027
Tetrachloroethylene	52	164	0.029	0.092
Toluene	28	74	0.016	0.041

Table 1-3

Parameter	Dly Avg (µg/L)	Dly Max (µg/L)	Dly Avg (lbs/day)	Dly Max (lbs/day)
1,2,4-Trichlorobenzene	196	794	0.110	0.444
1,1,1-Trichloroethane	22	59	0.012	0.033
1,1,2-Trichloroethane	32	127	0.018	0.071
Trichloroethylene	26	69	0.015	0.039
Vinyl Chloride	97	172	0.054	0.096

Non-Categorical Calculations

Mass allocations were previously calculated for COD because the process wastewater subject to 40 CFR Part 455 had COD allocations and because COD is commonly present in industrial wastewater. Estimated effluent concentrations for COD were based on values used for OCPSF wastewater in another industrial wastewater permit (TPDES Permit No. WQ00001054000).

The mass allocations are calculated as follows:

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

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

where wastewater flow is equal to 0.067 MGD, the wastewater flow subject to 40 CFR Part 414.

Table 1-4

Pollutant	Dly Avg (mg/L)	Dly Max (mg/L)	Dly Avg (lbs/day)	Dly Max (lbs/day)
COD	200	400	111.823	223.646

2. Mass Allocations Developed from 40 CFR Part 455 Pesticide Chemicals

Allocations for wastewaters identified as process wastewaters from pesticide chemicals manufacturing were calculated based on the following ELGs:

40 CFR Part 455 – Pesticide Chemicals

Subpart A *(Organic Pesticide Chemicals Manufacturing)* – 40 CFR §§ 455.20 (Applicability), 455.22 (BPT), 455.23 (BCT), and 455.24 (BAT). BPT and BAT limitations were used because they were as stringent or more stringent than BCT limitations.

Subpart C (*Pesticide Chemicals Formulating and Packaging*) – 40 CFR §§ 455.42 (BPT), 455.43 (BCT), and 455.44 (BAT). All three sections require that there be "no discharge of process wastewater pollutants to navigable waters."

Production
Based on information provided in the previous application, wastewater received was from the production of **117,000 pounds/day** of total organic active ingredients (=product).

Flow
Based on information provided in the application, flows subject to Subpart A are as follows:

Table 2-1

Process Wastewater	Flow (MGD)
Chlorothalonil I (CTL I) Reactor	0.03795
CTL I Reactor process area stormwater	0.00140
Chlorothalonil II (CTL II) Reactor	0.11025
CTL II Reactor process area stormwater	0.00310
CTL Purification	0.00300
CTL Acid Area	0.13390
Process and Formulations Labs	0.03800
Acid Tank Scrubber	0.02560
Other plant area stormwater	0.00790
Arsenic Pretreatment	—
Recovered groundwater/leachate	0.02070
Low flow stormwater	0.07200
Other recovered groundwater to WTS	0.04900
Total =	**0.5028**

Subpart A Calculations

40 CFR § 455.20 (Applicability)

Requirements in 40 CFR § 455.20(d) specify that:

> A plant that manufactures a pesticide active ingredient listed in Table 1 of this part must comply with the BAT effluent limitations and new source performance and pretreatment standards for that pesticide active ingredient listed in Table 2 (BAT and PSES) or Table 3 of this part (NSPS and PSNS). A plant that manufactures a pesticide active ingredient listed in Table 1 of this part must also comply with the BAT effluent limitations and new source performance and pretreatment standards for priority pollutants listed in Tables 4, 5 and 6 of this part. The limitations in Table 4 of this part (BAT and NSPS) are applicable to existing and new direct discharge point sources that use End-of-Pipe biological treatment. The limitations in Table 5 of this part (BAT and NSPS) are applicable to existing and new direct discharge point sources that do not use end-of-pipe biological

treatment. The limitations in Table 6 of this part (PSES and PSNS) are applicable to existing and new sources that discharge to Publicly Owned Treatment Works.

The facility manufactured chlorothalonil, which is listed in Table 1 of 40 CFR Part 455. On this basis, the limits from Table 2 of 40 CFR Part 455 were applicable (see Table 2-2 below). The mass allocations for these waste streams were calculated as follows:

Dly Avg (lbs/day) = [Dly Avg (lbs/1,000 lbs product)] × [Mass of product (1,000 lbs/day)*]

Dly Max (lbs/day) = [Dly Max (lbs/1,000 lbs product)] × [Mass of product (1,000 lbs/day)*]

* Mass of product (1,000 lbs/day) = 117

Table 2-2

Pollutant	Effluent Limits (lbs/1,000 lbs product)		Mass Limits (lbs/day)	
	Dly Avg	Dly Max	Dly Avg	Dly Max
Chlorothalonil	4.57×10^{-4}	1.51×10^{-3}	0.05346	0.1766

The calculations for priority pollutants in Table 4 of 40 CFR Part 455 are also required by 40 CFR § 455.24 (BAT) and are presented in that section.

40 CFR § 455.22 (BPT)

The applicable BPT limits are shown in Table 2-3 below. The mass allocations for these waste streams were calculated as follows:

Dly Avg (lbs/day) = [Dly Avg (lbs/1,000 lbs product)] × [Mass of product (1,000 lbs/day)*]

Dly Max (lbs/day) = [Dly Max (lbs/1,000 lbs product)] × [Mass of product (1,000 lbs/day)*]

* Mass of product (1,000 lbs/day) = 117

Table 2-3

Pollutant	Effluent Limits (lbs/1,000 lbs product)		Mass Allocations (lbs/day)	
	Dly Avg	Dly Max	Dly Avg	Dly Max
COD	9.0000	13.000	1,053	1,521
BOD_5	1.6000	7.400	187.2	865.8
TSS	1.8000	6.100	210.6	713.7
Organic pesticide chemicals[2]	N/A	N/A	N/A	N/A
pH	Between 6.0 and 9.0 SU			

[2] Based on 40 CFR § 455.20(b), limits on organic pesticide chemicals are not required for this permit because chlorothalonil is not listed as one of the organic active ingredients that requires such limits.

40 CFR § 455.24 (BAT)

The applicable BAT limits are shown in Table 2-4 below (taken from 40 CFR Part 455, Table 4). The mass allocations for these waste streams were calculated as follows:

Dly Avg (lbs/day) = [Dly Avg (µg/L)/1,000] × [0.5028 MGD] × 8.345

Dly Max (lbs/day) = [Dly Max (µg/L)/1,000] × [0.5028 MGD] × 8.345

where 8.345 is a conversion factor.

Table 2-4

Pollutant	Effluent Limits (µg/L)		Mass Allocations (lbs/day)	
	Dly Avg	Dly Max	Dly Avg	Dly Max
Cyanide, Total	220	640	0.923	2.685
Lead, Total	320	690	1.343	2.895
Benzene	37	136	0.155	0.571
Bromodichloromethane	142	380	0.596	1.594
Bromomethane	142	380	0.596	1.594
Chlorobenzene	15	28	0.063	0.117
Chloromethane [Methyl Chloride]	86	190	0.361	0.797
2-Chlorophenol	31	98	0.130	0.411
Dibromochloromethane [Chlorodibromomethane]	196	794	0.822	3.332
1,2-Dichlorobenzene	77	163	0.323	0.684
1,4-Dichlorobenzene	15	28	0.063	0.117
1,2-Dichloroethane	68	211	0.285	0.885
1,1-Dichloroethylene	16	25	0.067	0.105
1,2-*trans*-Dichloroethylene	21	54	0.088	0.227
Dichloromethane [Methylene Chloride]	40	89	0.168	0.373
2,4-Dichlorophenol	39	112	0.164	0.470
1,2-Dichloropropane	153	230	0.642	0.965
1,3-Dichloropropene [1,3-Dichloropropylene]	29	44	0.122	0.185
2,4-Dimethylphenol	18	36	0.076	0.151
Ethylbenzene	32	108	0.134	0.453
Naphthalene	22	59	0.092	0.248
Phenol	15	26	0.063	0.109
Tetrachloroethylene	22	56	0.092	0.235
Tetrachloromethane [Carbon Tetrachloride]	18	38	0.076	0.159
Toluene	26	80	0.109	0.336
Tribromomethane [Bromoform]	196	794	0.822	3.332
1,1,1-Trichloroethane	21	54	0.088	0.227
Trichloromethane [Chloroform]	21	46	0.088	0.193

3. Mass Allocations for Utility and Other Wastewaters

Allocations for utility and other wastewaters were calculated using estimated effluent concentrations for BOD_5, TSS, and COD that were based on values used for miscellaneous wastewaters (including utility wastewater) in another industrial wastewater permit (TPDES Permit No. WQ00001054000). The mass allocations for these waste streams were calculated as follows:

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

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

where wastewater flow is equal to 0.0745 MGD, and 8.345 is a conversion factor.

Table 4-1

Pollutant	Dly Avg (mg/L)	Dly Max (mg/L)	Dly Avg (lbs/day)	Dly Max (lbs/day)
BOD_5	20	40	12.4	24.9
TSS	50	120	31.1	74.6
COD	100	225	62.2	139.9
pH	Between 6.0 and 9.0 SU			

4. Sum of Mass Allocations

Mass allocations were developed for BOD_5, TSS, and COD for all waste streams. Summations of daily average technology-based effluent allocations are provided in Table 5-1, and summations of daily maximum technology-based effluent allocations are provided in Table 5-2.

Table 5-1: Daily Average Mass Limits (lbs/day)

Pollutant	414	455	Other	Total
COD	111.8	1053	62.2	1227.0
BOD_5	25.2	187.2	12.4	224.8
TSS	31.9	210.6	31.1	273.6

Table 5-2: Daily Maximum Mass Limits (lbs/day)

Pollutant	414	455	Other	Total
COD	223.6	1521	139.9	1884.5
BOD_5	67.1	865.8	24.9	957.8
TSS	102.3	713.7	74.6	890.6

Mass allocations were developed for toxic pollutants for waste streams subject to 40 CFR Parts 414 and 455. Summations of technology-based effluent allocations are provided in Table 5-3. Single grab limits are developed in Appendix D.

Table 5-3: Mass Allocations

Parameter	Daily Average (lbs/day)			Daily Maximum (lbs/day)		
	414	455	Total	414	455	Total
Cyanide, total	0.050	0.923	0.974	0.144	2.685	2.830
Lead, total	—	1.343	1.343	—	2.895	2.895
Acenaphthene	0.011	—	0.011	0.026	—	0.026
Acenaphthylene	0.011	—	0.011	0.026	—	0.026
Acrylonitrile	0.053	—	0.053	0.130	—	0.130
Anthracene	0.011	—	0.011	0.026	—	0.026
Benzene	0.032	0.155	0.187	0.075	0.571	0.646
Benzo(a)anthracene	0.011	—	0.011	0.026	—	0.026
3,4-Benzofluoranthene	0.011	—	0.011	0.027	—	0.027
Benzo(k)fluoranthene	0.011	—	0.011	0.026	—	0.026
Benzo(a)pyrene	0.011	—	0.011	0.027	—	0.027
Bis(2-ethylhexyl) phthalate	0.053	—	0.053	0.144	—	0.144
Bromodichloromethane	—	0.596	0.596	—	1.594	1.594
Bromomethane	—	0.596	0.596	—	1.594	1.594
Chlorobenzene	0.079	0.063	0.142	0.212	0.117	0.330
Chloroethane	0.062	—	0.062	0.165	—	0.165
Chloromethane [Methyl Chloride]	0.020	0.361	0.381	0.095	0.797	0.892
2-Chlorophenol	0.017	0.130	0.147	0.055	0.411	0.466
Chrysene	0.011	—	0.011	0.026	—	0.026
Dibromochloromethane [Chlorodibromomethane]	—	0.822	0.822	—	3.332	3.332
Di-n-butyl Phthalate	0.011	—	0.011	0.024	—	0.024
1,2-Dichlorobenzene	0.110	0.323	0.433	0.444	0.684	1.128

Table 5-3: Mass Allocations

Parameter	Daily Average (lbs/day)			Daily Maximum (lbs/day)		
	414	455	Total	414	455	Total
1,3-Dichlorobenzene	0.079	—	0.079	0.212	—	0.212
1,4-Dichlorobenzene	0.079	0.063	0.142	0.212	0.117	0.330
1,1-Dichloroethane	0.012	—	0.012	0.033	—	0.033
1,2-Dichloroethane	0.101	0.285	0.386	0.321	0.885	1.206
1,1-Dichloroethylene	0.012	0.067	0.079	0.034	0.105	0.138
1,2-trans-Dichloroethylene	0.014	0.088	0.102	0.037	0.227	0.263
Dichloromethane [Methylene Chloride]	—	0.168	0.168	—	0.373	0.373
2,4-Dichlorophenol	0.022	0.164	0.185	0.063	0.470	0.533
1,2-Dichloropropane	0.110	0.642	0.752	0.444	0.965	1.409
1,3-Dichloropropene [1,3-Dichloropropylene]	—	0.122	0.122	—	0.185	0.185
Diethyl Phthalate	0.026	—	0.026	0.063	—	0.063
2,4-Dimethylphenol	0.011	0.076	0.086	0.026	0.151	0.177
Dimethyl Phthalate	0.011	—	0.011	0.026	—	0.026
4,6-Dinitro-o-cresol	0.044	—	0.044	0.155	—	0.155
2,4-Dinitrophenol	0.675	—	0.675	2.399	—	2.399
2,4-Dinitrotoluene	0.063	—	0.063	0.159	—	0.159
2,6-Dinitrotoluene	0.143	—	0.143	0.358	—	0.358
Ethylbenzene	0.079	0.134	0.214	0.212	0.453	0.666
Fluoranthene	0.012	—	0.012	0.030	—	0.030
Fluorene	0.011	—	0.011	0.026	—	0.026
Hexachlorobenzene	0.110	—	0.110	0.444	—	0.444
Hexachlorobutadiene	0.079	—	0.079	0.212	—	0.212
Hexachloroethane	0.110	—	0.110	0.444	—	0.444
Naphthalene	0.011	0.092	0.103	0.026	0.248	0.274
Nitrobenzene	1.251	—	1.251	3.579	—	3.579
2-Nitrophenol	0.036	—	0.036	0.129	—	0.129
4-Nitrophenol	0.091	—	0.091	0.322	—	0.322
Phenanthrene	0.011	—	0.011	0.026	—	0.026
Phenol	0.011	0.063	0.074	0.026	0.109	0.135
Pyrene	0.011	—	0.011	0.027	—	0.027
Tetrachloroethylene	0.029	0.092	0.121	0.092	0.235	0.327
Tetrachloromethane [Carbon Tetrachloride]	0.079	0.076	0.155	0.212	0.159	0.372
Toluene	0.016	0.109	0.125	0.041	0.336	0.377
Tribromomethane [Bromoform]	—	0.822	0.822	—	3.332	3.332
1,2,4-Trichlorobenzene	0.110	—	0.110	0.444	—	0.444
1,1,1-Trichloroethane	0.012	0.088	0.100	0.033	0.227	0.260
1,1,2-Trichloroethane	0.018	—	0.018	0.071	—	0.071
Trichloroethylene	0.015	—	0.015	0.039	—	0.039
Trichloromethane [Chloroform]	0.062	0.088	0.150	0.182	0.193	0.375
Vinyl Chloride	0.054	—	0.054	0.096	—	0.096

6. Additional Effluent Limitations

TOC
Limits on TOC at internal Outfall 101 have been in the permit since at least 1990 and have been carried forward in the draft permit based on EPA's anti-backsliding regulations at 40 CFR § 122.44(l).

Total Arsenic
Limits on total arsenic at internal Outfall 101 were brought over from the NPDES permit into the first TPDES permit (issued in 2007) and have been carried forward in the draft permit based on EPA's anti-backsliding regulations at 40 CFR § 122.44(l).

7. Mass-Based to Concentration-Based Conversion for Calculated TBELs

With the removal of process wastewater from internal Outfall 101, concentration-based effluent limitations are more appropriate to address legacy pollution in the remediated groundwater discharged from the facility. The calculated technology-based effluent limitations for internal Outfall 101 were back-calculated by dividing the calculated TBELs by a conversion factor of 8.345 and the authorized daily average flow of 0.9 MGD. Comparison between the calculated TBELs found in this appendix between the back-calculated effluent limitations from the existing permit are included in Appendix D.

Pollutant	Daily Average (lbs/day)	Daily Max (lbs/day)	Daily Average (mg/L)	Daily Max (mg/L)
BOD5	387	958	52	128
TSS	274	891	36	119
COD	1227	1885	163	251
Cyanide, total	0.974	2.830	0.130	0.377
Lead, total	1.343	2.895	0.179	0.385
Chlorothalonil [Daconil]	0.053	0.176	0.007	0.023
Acenaphthene	0.011	0.026	0.001	0.003
Acenaphthylene	0.011	0.026	0.001	0.003
Acrylonitrile	0.053	0.130	0.007	0.017
Anthracene	0.011	0.026	0.001	0.003
Benzene	0.187	0.646	0.025	0.086
Benzo(a)anthracene	0.011	0.026	0.001	0.003
3,4-Benzofluoranthene	0.011	0.027	0.001	0.004
Benzo(k)fluoranthene	0.011	0.026	0.001	0.003
Benzo(a)pyrene	0.011	0.027	0.001	0.004
Bis(2-ethylhexyl) phthalate	0.053	0.144	0.007	0.019
Bromodichloromethane	0.596	1.594	0.079	0.212
Bromomethane	0.596	1.594	0.079	0.212
Chlorobenzene	0.142	0.330	0.019	0.044
Chloroethane	0.062	0.165	0.008	0.022

Chloromethane [Methyl Chloride]	0.422	0.962	0.056	0.128
2-Chlorophenol	0.147	0.466	0.020	0.062
Chrysene	0.011	0.026	0.001	0.003
Dibromochloromethane [Chlorodibromomethane]	0.822	3.332	0.109	0.444
Di-n-butyl Phthalate	0.011	0.024	0.001	0.003
1,2-Dichlorobenzene	0.433	1.128	0.058	0.150
1,3-Dichlorobenzene	0.079	0.212	0.011	0.028
1,4-Dichlorobenzene	0.142	0.330	0.019	0.044
1,1-Dichloroethane	0.012	0.033	0.002	0.004
1,2-Dichloroethane	0.386	1.206	0.051	0.161
1,1-Dichloroethylene	0.079	0.138	0.011	0.018
1,2-trans-Dichloroethylene	0.102	0.263	0.014	0.035
Dichloromethane [Methylene Chloride]	0.188	0.468	0.025	0.062
2,4-Dichlorophenol	0.185	0.533	0.025	0.071
1,2-Dichloropropane	0.752	1.409	0.100	0.188
1,3-Dichloropropene [1,3-Dichloropropylene]	0.231	0.629	0.031	0.084
Diethyl Phthalate	0.026	0.063	0.003	0.008
2,4-Dimethylphenol	0.086	0.177	0.011	0.024
Dimethyl Phthalate	0.011	0.026	0.001	0.003
4,6-Dinitro-o-cresol	0.044	0.155	0.006	0.021
2,4-Dinitrophenol	0.675	2.399	0.090	0.319
2,4-Dinitrotoluene	0.063	0.159	0.008	0.021
2,6-Dinitrotoluene	0.143	0.358	0.019	0.048
Ethylbenzene	0.214	0.666	0.028	0.089
Fluoranthene	0.012	0.030	0.002	0.004
Fluorene	0.011	0.026	0.001	0.003
Hexachlorobenzene	0.110	0.444	0.015	0.059
Hexachlorobutadiene	0.079	0.212	0.011	0.028
Hexachloroethane	0.110	0.444	0.015	0.059
Naphthalene	0.103	0.274	0.014	0.036
Nitrobenzene	1.251	3.579	0.167	0.477
2-Nitrophenol	0.036	0.129	0.005	0.017
4-Nitrophenol	0.091	0.322	0.012	0.043
Phenanthrene	0.011	0.026	0.001	0.003
Phenol	0.074	0.135	0.010	0.018

Pyrene	0.011	0.027	0.001	0.004
Tetrachloroethylene	0.121	0.327	0.016	0.043
Tetrachloromethane [Carbon Tetrachloride]	0.155	0.372	0.021	0.050
Toluene	0.125	0.377	0.017	0.050
Tribromomethane [Bromoform]	0.822	3.332	0.109	0.444
1,2,4-Trichlorobenzene	0.110	0.444	0.015	0.059
1,1,1-Trichloroethane	0.100	0.260	0.013	0.035
1,1,2-Trichloroethane	0.018	0.071	0.002	0.009
Trichloroethylene	0.015	0.039	0.002	0.005
Trichloromethane [Chloroform]	0.150	0.375	0.020	0.050
Vinyl Chloride	0.054	0.096	0.007	0.013
Acenaphthene	0.011	0.026	0.001	0.003
Acenaphthylene	0.011	0.026	0.001	0.003
Acrylonitrile	0.053	0.130	0.007	0.017
Anthracene	0.011	0.026	0.001	0.003
Benzene	0.187	0.646	0.025	0.086
Benzo(a)anthracene	0.011	0.026	0.001	0.003

Outfall 001

Oil and Grease

A daily maximum oil and grease limit of 15 mg/L was brought over from the NPDES permit into the first TPDES permit (issued in 2007) and has been carried forward in the draft permit based on EPA's anti-backsliding regulations at 40 CFR § 122.44(l).

DCPA [Dacthal]

The permit has included limits on DCPA [Dacthal] since at least 1990 because the facility previously manufactured it, and it may still be present in groundwater. The existing daily maximum effluent limit of 0.168 mg/L was established in the permit issued on April 20, 2007. It is a technology-based concentration limit that was calculated using the mass limit of 1.266 lbs/day and the daily average permitted flow of 0.9 MGD at internal Outfall 101 from the 1995 permit. That mass limit was established based on 40 CFR Part 455, Subpart A, that was in effect as of 1993. This concentration limit is still appropriate and has been carried forward in the draft permit.

pH

Limits on pH of 6.0-9.0 SU are appropriate for industrial wastewater discharge and are carried forward in the draft permit.

Total Organic Carbon (TOC)

The daily maximum TOC limit of 55 mg/L has been moved to Outfall 001 following the removal of internal Outfall 201. The TOC limit has been in the permit since at least 1990 and is consistent with EPA guidance for industrial stormwater discharges. This limit is still considered appropriate and has been carried forward in the draft permit based on EPA's anti-backsliding regulations at 40 CFR § 122.44(l).

Chlorothalonil (Daconil)

The daily maximum limit for chlorothalonil (Daconil) (0.6 mg/L) was brought over from the NPDES permit into the first TPDES permit (issued in 2007). With the removal of internal Outfall 201, this limit has been applied to Outfall 001 to ensure the draft permit is consistent with conditions established in the previous permit. This limit is still considered appropriate and has been carried forward in the draft permit based on EPA's anti-backsliding regulations at 40 CFR § 122.44(l).

Outfalls 002, 003, 004, 005, and 006

Daily maximum effluent limitations for TOC (55 mg/L) and oil and grease (15 mg/L) and pH limits of 6.0-9.0 SU at Outfalls 002-006 are consistent with EPA guidance for industrial stormwater discharges. These limits are still appropriate and have been carried forward in the draft permit based on EPA's anti-backsliding regulations at 40 CFR § 122.44(l).

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

Appendix B
Calculated Water Quality-Based Effluent Limits

TEXTOX MENU #10 - INTERMITTENT FRESHWATER STREAM WITHIN 3 MILES OF A BAY OR WIDE TIDAL RIVER

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

Table 1, 2014 Texas Surface Water Quality Standards (30 TAC 307) for Freshwater and Saltwater Aquatic Life
Table 2, 2018 Texas Surface Water Quality Standards for Human Health
"Procedures to Implement the Texas Surface Water Quality Standards," TCEQ, June 2010

PERMIT INFORMATION

Permittee Name:	Syngenta Crop Protection, LLC
TPDES Permit No:	WQ0000749000
Outfall No:	001
Prepared by:	Alexander Owens
Date:	April 18, 2024

DISCHARGE INFORMATION

Intermittent Receiving Waterbody:	unnamed ditch
Segment No. for Freshwater Ambient Data:	1016
TSS (mg/L) (Intermittent):	10
pH (Standard Units) (Intermittent):	7.5
Hardness (mg/L as $CaCO_3$) (Intermittent):	65
Chloride (mg/L) (Intermittent):	81
Effluent Flow for Aquatic Life (MGD):	0.391
% Effluent for Acute Aquatic Life (Intermittent):	100
Saltwater Receiving Waterbody:	The Greens Bayou Tidal portion of the HSC
Segment No.:	1006
TSS (mg/L) (Bay/Tidal River):	9
% Effluent for Chronic Aquatic Life (Bay/Tidal River):	8
% Effluent for Acute Aquatic Life (Bay/Tidal River):	30
Oyster Waters?	**No**
Effluent Flow for Human Health (MGD):	0.162
% Effluent for Human Health (Bay/Tidal River):	4

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

Stream/River Metal	*Intercept (b)*	*Slope (m)*	*Partition Coefficient (Kp)*	*Dissolved Fraction (Cd/Ct)*	*Source*	*Water Effect Ratio (WER)*	*Source*
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	5.68	-0.73	89125.09	0.529		1.00	Assumed
Cadmium	6.60	-1.13	295120.92	0.253		1.00	Assumed
Chromium (total)	6.52	-0.93	389045.14	0.204		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	389045.14	0.204		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	190546.07	0.344		1.00	Assumed
Lead	6.45	-0.80	446683.59	0.183		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	131825.67	0.431		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	223872.11	0.309		1.00	Assumed
Zinc	6.10	-0.70	251188.64	0.285		1.00	Assumed

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

Estuarine Metal	*Intercept (b)*	*Slope (m)*	*Partition Coefficient (Kp)*	*Dissolved Fraction (Cd/Ct)*	*Source*	*Water Effect Ratio (WER)*	*Source*
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Cadmium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Chromium (total)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Chromium (trivalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	4.85	-0.72	14552.76	0.884		1.00	Assumed
Lead	6.06	-0.85	177375.60	0.385		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	5.86	-0.74	142514.99	0.438		1.00	Assumed
Zinc	5.36	-0.52	73079.22	0.603		1.00	Assumed

AQUATIC LIFE
CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*FW Acute Criterion (µg/L)*	*SW Acute Criterion (µg/L)*	*SW Chronic Criterion (µg/L)*	*FW WLAa (µg/L)*	*SW WLAa (µg/L)*	*SW WLAc (µg/L)*	*FW LTAa (µg/L)*	*SW LTAa (µg/L)*	*SW LTAc (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Aldrin	3.0	1.3	N/A	3.00	4.33	N/A	1.72	1.39	N/A	2.03	4.31
Aluminum	991	N/A	N/A	991	N/A	N/A	568	N/A	N/A	834	1765
Arsenic	340	149	78	643	497	975	368	159	595	233	494
Cadmium	5.6	40.0	8.75	22.3	133	109	12.8	42.7	66.7	18.7	39.7
Carbaryl	2.0	613	N/A	2.00	2043	N/A	1.15	654	N/A	1.68	3.56
Chlordane	2.4	0.09	0.004	2.40	0.300	0.0500	1.38	0.0960	0.0305	0.0448	0.0948
Chlorpyrifos	0.083	0.011	0.006	0.0830	0.0367	0.0750	0.0476	0.0117	0.0458	0.0172	0.0364
Chromium (trivalent)	400	N/A	N/A	1958	N/A	N/A	1122	N/A	N/A	1649	3489
Chromium (hexavalent)	15.7	1090	49.6	15.7	3633	620	9.00	1163	378	13.2	27.9
Copper	9.5	13.5	3.6	27.5	50.9	50.9	15.8	16.3	31.0	23.1	49.0
Copper (oyster waters)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cyanide (free)	45.8	5.6	5.6	45.8	18.7	70.0	26.2	5.97	42.7	8.78	18.5
4,4'-DDT	1.1	0.13	0.001	1.10	0.433	0.0125	0.630	0.139	0.00763	0.0112	0.0237
Demeton	N/A	N/A	0.1	N/A	N/A	1.25	N/A	N/A	0.763	1.12	2.37
Diazinon	0.17	0.819	0.819	0.170	2.73	10.2	0.0974	0.874	6.24	0.143	0.302
Dicofol [Kelthane]	59.3	N/A	N/A	59.3	N/A	N/A	34.0	N/A	N/A	49.9	105
Dieldrin	0.24	0.71	0.002	0.240	2.37	0.0250	0.138	0.757	0.0153	0.0224	0.0474
Diuron	210	N/A	N/A	210	N/A	N/A	120	N/A	N/A	176	374
Endosulfan I (*alpha*)	0.22	0.034	0.009	0.220	0.113	0.113	0.126	0.0363	0.0686	0.0533	0.112
Endosulfan II (*beta*)	0.22	0.034	0.009	0.220	0.113	0.113	0.126	0.0363	0.0686	0.0533	0.112
Endosulfan sulfate	0.22	0.034	0.009	0.220	0.113	0.113	0.126	0.0363	0.0686	0.0533	0.112
Endrin	0.086	0.037	0.002	0.0860	0.123	0.0250	0.0493	0.0395	0.0153	0.0224	0.0474
Guthion [Azinphos Methyl]	N/A	N/A	0.01	N/A	N/A	0.125	N/A	N/A	0.0763	0.112	0.237
Heptachlor	0.52	0.053	0.004	0.520	0.177	0.0500	0.298	0.0565	0.0305	0.0448	0.0948
Hexachlorocyclohexane (*gamma*) [Lindane]	1.126	0.16	N/A	1.13	0.533	N/A	0.645	0.171	N/A	0.250	0.530
Lead	40	133	5.3	220	1151	172	126	368	105	154	326
Malathion	N/A	N/A	0.01	N/A	N/A	0.125	N/A	N/A	0.0763	0.112	0.237
Mercury	2.4	2.1	1.1	2.40	7.00	13.8	1.38	2.24	8.39	2.02	4.27
Methoxychlor	N/A	N/A	0.03	N/A	N/A	0.375	N/A	N/A	0.229	0.336	0.711
Mirex	N/A	N/A	0.001	N/A	N/A	0.0125	N/A	N/A	0.00763	0.0112	0.0237
Nickel	325	118	13.1	754	393	164	432	126	99.9	146	310
Nonylphenol	28	7	1.7	28.0	23.3	21.3	16.0	7.47	13.0	10.9	23.2
Parathion (ethyl)	0.065	N/A	N/A	0.0650	N/A	N/A	0.0372	N/A	N/A	0.0547	0.115
Pentachlorophenol	14.4	15.1	9.6	14.4	50.3	120	8.26	16.1	73.2	12.1	25.6
Phenanthrene	30	7.7	4.6	30.0	25.7	57.5	17.2	8.21	35.1	12.0	25.5
Polychlorinated Biphenyls [PCBs]	2.0	10	0.03	2.00	33.3	0.375	1.15	10.7	0.229	0.336	0.711
Selenium	20	564	136	20.0	1880	1700	11.5	602	1037	16.8	35.6
Silver	0.8	2	N/A	17.7	15.2	N/A	10.1	4.87	N/A	7.15	15.1
Toxaphene	0.78	0.21	0.0002	0.780	0.700	0.00250	0.447	0.224	0.00153	0.00224	0.00474
Tributyltin [TBT]	0.13	0.24	0.0074	0.130	0.800	0.0925	0.0745	0.256	0.0564	0.0829	0.175
2,4,5 Trichlorophenol	136	259	12	136	863	150	77.9	276	91.5	114	242
Zinc	81	92.7	84.2	286	512	1745	164	164	1064	240	509

HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*Fish Only Criterion (µg/L)*	*WLAh (µg/L)*	*LTAh (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Acrylonitrile	115	2875	2674	3930	8315
Aldrin	1.147E-05	0.000287	0.000267	0.000392	0.000829
Anthracene	1317	32925	30620	45011	95228
Antimony	1071	26775	24901	36604	77441
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	N/A	N/A	N/A	N/A	N/A
Benzene	581	14525	13508	19857	42010
Benzidine	0.107	2.68	2.49	3.65	7.73
Benzo(*a*)anthracene	0.025	0.625	0.581	0.854	1.80
Benzo(*a*)pyrene	0.0025	0.0625	0.0581	0.0854	0.180
Bis(chloromethyl)ether	0.2745	6.86	6.38	9.38	19.8
Bis(2-chloroethyl)ether	42.83	1071	996	1463	3096
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	7.55	189	176	258	545
Bromodichloromethane [Dichlorobromomethane]	275	6875	6394	9398	19884
Bromoform [Tribromomethane]	1060	26500	24645	36228	76645
Cadmium	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	46	1150	1070	1572	3326
Chlordane	0.0025	0.0625	0.0581	0.0854	0.180
Chlorobenzene	2737	68425	63635	93543	197905
Chlorodibromomethane [Dibromochloromethane]	183	4575	4255	6254	13232
Chloroform [Trichloromethane]	7697	192425	178955	263064	556550
Chromium (hexavalent)	502	12550	11672	17157	36298
Chrysene	2.52	63.0	58.6	86.1	182
Cresols [Methylphenols]	9301	232525	216248	317884	672532
Cyanide (free)	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.002	0.0500	0.0465	0.0683	0.144
4,4'-DDE	0.00013	0.00325	0.00302	0.00444	0.00939
4,4'-DDT	0.0004	0.0100	0.00930	0.0136	0.0289
2,4'-D	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	473	11825	10997	16165	34201
1,2-Dibromoethane [Ethylene Dibromide]	4.24	106	98.6	144	306
m-Dichlorobenzene [1,3-Dichlorobenzene]	595	14875	13834	20335	43022
o-Dichlorobenzene [1,2-Dichlorobenzene]	3299	82475	76702	112751	238542
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	2.24	56.0	52.1	76.5	161
1,2-Dichloroethane	364	9100	8463	12440	26319
1,1-Dichloroethylene [1,1-Dichloroethene]	55114	1377850	1281401	1883658	3985155
Dichloromethane [Methylene Chloride]	13333	333325	309992	455688	964075
1,2-Dichloropropane	259	6475	6022	8851	18727
1,3-Dichloropropene [1,3-Dichloropropylene]	119	2975	2767	4067	8604
Dicofol [Kelthane]	0.30	7.50	6.98	10.2	21.6
Dieldrin	2.0E-05	0.000500	0.000465	0.000683	0.00144
2,4-Dimethylphenol	8436	210900	196137	288321	609986
Di-*n*-Butyl Phthalate	92.4	2310	2148	3158	6681
Dioxins/Furans [TCDD Equivalents]	7.97E-08	0.0000020	0.0000019	0.0000027	0.0000058
Endrin	0.02	0.500	0.465	0.683	1.44
Epichlorohydrin	2013	50325	46802	68799	145554
Ethylbenzene	1867	46675	43408	63809	134998
Ethylene Glycol	1.68E+07	420000000	390600000	574182000	1214766000
Fluoride	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.0001	0.00250	0.00233	0.00341	0.00723

HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	*Fish Only Criterion (µg/L)*	*WLAh (µg/L)*	*LTAh (µg/L)*	*Daily Avg. (µg/L)*	*Daily Max. (µg/L)*
Heptachlor Epoxide	0.00029	0.00725	0.00674	0.00991	0.0209
Hexachlorobenzene	0.00068	0.0170	0.0158	0.0232	0.0491
Hexachlorobutadiene	0.22	5.50	5.12	7.51	15.9
Hexachlorocyclohexane (*alpha*)	0.0084	0.210	0.195	0.287	0.607
Hexachlorocyclohexane (*beta*)	0.26	6.50	6.05	8.88	18.7
Hexachlorocyclohexane (*gamma*) [Lindane]	0.341	8.53	7.93	11.6	24.6
Hexachlorocyclopentadiene	11.6	290	270	396	838
Hexachloroethane	2.33	58.3	54.2	79.6	168
Hexachlorophene	2.90	72.5	67.4	99.1	209
4,4'-Isopropylidenediphenol [Bisphenol A]	15982	399550	371582	546224	1155618
Lead	3.83	249	231	339	719
Mercury	0.025	0.625	0.581	0.854	1.80
Methoxychlor	3.0	75.0	69.8	102	216
Methyl Ethyl Ketone	9.92E+05	24800000	23064000	33904080	71729040
Methyl *tert*-butyl ether [MTBE]	10482	262050	243707	358248	757927
Nickel	1140	28500	26505	38962	82430
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	1873	46825	43547	64014	135431
N-Nitrosodiethylamine	2.1	52.5	48.8	71.7	151
N-Nitroso-di-*n*-Butylamine	4.2	105	97.7	143	303
Pentachlorobenzene	0.355	8.88	8.25	12.1	25.6
Pentachlorophenol	0.29	7.25	6.74	9.91	20.9
Polychlorinated Biphenyls [PCBs]	6.4E-04	0.0160	0.0149	0.0218	0.0462
Pyridine	947	23675	22018	32366	68475
Selenium	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.24	6.00	5.58	8.20	17.3
1,1,2,2-Tetrachloroethane	26.35	659	613	900	1905
Tetrachloroethylene [Tetrachloroethylene]	280	7000	6510	9569	20246
Thallium	0.23	5.75	5.35	7.86	16.6
Toluene	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.275	0.256	0.375	0.795
2,4,5-TP [Silvex]	369	9225	8579	12611	26681
1,1,1-Trichloroethane	784354	19608850	18236231	26807258	56714676
1,1,2-Trichloroethane	166	4150	3860	5673	12003
Trichloroethylene [Trichloroethene]	71.9	1798	1672	2457	5198
2,4,5-Trichlorophenol	1867	46675	43408	63809	134998
TTHM [Sum of Total Trihalomethanes]	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	16.5	413	384	563	1193

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

Aquatic Life	*70% of Daily Avg.*	*85% of Daily Avg.*	*Average of Samples*	*Sample 1*	*Sample 2*	*Sample 3*	*Sample 4*
Parameter	***(µg/L)***	***(µg/L)***	***(µg/L)***	***(µg/L)***	***(µg/L)***	***(µg/L)***	***(µg/L)***
Aldrin	1.42	1.73	ND [1]				
Aluminum	584	709	9.6	18.9	6.5	6.5	6.5
Arsenic	163	198	6.325	11.1	5.8	5.8	2.6
Cadmium	13.1	15.9	ND [1]				
Carbaryl	1.17	1.43	ND [1]				
Chlordane	0.0313	0.0381	ND [1]				
Chlorpyrifos	0.0120	0.0146	ND [1]				
Chromium (trivalent)	1154	1401	0.4	0.4	0.4	0.4	0.4
Chromium (hexavalent)	9.25	11.2	4.7	4.7	4.7	4.7	4.7
Copper	16.2	19.6	ND [1]				
Copper (oyster waters)	N/A	N/A	N/A				
Cyanide (free)	6.14	7.46	ND [1]				
4,4'-DDT	0.00784	0.00952	ND [1]				
Demeton	0.784	0.952	ND [1]				
Diazinon	0.100	0.121	ND [1]				
Dicofol [Kelthane]	34.9	42.4	ND [1]				
Dieldrin	0.0156	0.0190	ND [1]				
Diuron	123	150	0.86	0.86			
Endosulfan I (*alpha*)	0.0373	0.0453	ND [1]				
Endosulfan II (*beta*)	0.0373	0.0453	ND [1]				
Endosulfan sulfate	0.0373	0.0453	ND [1]				
Endrin	0.0156	0.0190	ND [1]				
Guthion [Azinphos Methyl]	0.0784	0.0952	ND [1]				
Heptachlor	0.0313	0.0381	ND [1]				
Hexachlorocyclohexane (*gamma*) [Lindane]	0.175	0.213	ND [1]				
Lead	107	131	ND [1]				
Malathion	0.0784	0.0952	ND [1]				
Mercury	1.41	1.71	0.000431	0.000346	0.000265	0.0005	0.00061
Methoxychlor	0.235	0.285	ND [1]				
Mirex	0.00784	0.00952	ND [1]				
Nickel	102	124	22.575	20.6	27.1	20	22.6
Nonylphenol	7.68	9.32	ND [1]				
Parathion (ethyl)	0.0383	0.0465	ND [1]				
Pentachlorophenol	8.50	10.3	ND [1]				
Phenanthrene	8.45	10.2	ND [1]				
Polychlorinated Biphenyls [PCBs]	0.235	0.285	ND [1]				
Selenium	11.7	14.3	ND [1]				
Silver	5.01	6.08	ND [1]				
Toxaphene	0.00156	0.00190	ND [1]				
Tributyltin [TBT]	0.0580	0.0705	NR [2]				
2,4,5 Trichlorophenol	80.1	97.3	ND [1]				
Zinc	168	204	0.65	0	0	0	2.6

[1] Not detected in the sample at or above the minimum analytical level.
[2] Not required to be sampled for in the application.

Human Health	*70% of Daily Avg.*	*85% of Daily Avg.*	*Average of Samples*	*Sample 1*	*Sample 2*	*Sample 3*	*Sample 4*
Parameter	***(µg/L)***	***(µg/L)***	***(µg/L)***	***(µg/L)***	***(µg/L)***	***(µg/L)***	***(µg/L)***
Acrylonitrile	2751	3340	ND [1]				
Aldrin	0.000274	0.000333	ND [1]				
Anthracene	31508	38260	ND [1]				
Antimony	25622	31113	ND [1]				
Arsenic	N/A	N/A	6.325	11.1	5.8	5.8	2.6
Barium	N/A	N/A	33.475	21.6	29.7	36.4	46.2
Benzene	13899	16878	ND [1]				
Benzidine	2.55	3.10	ND [1]				
Benzo(*a*)anthracene	0.598	0.726	ND [1]				
Benzo(*a*)pyrene	0.0598	0.0726	ND [1]				
Bis(chloromethyl)ether	6.56	7.97	ND [1]				
Bis(2-chloroethyl)ether	1024	1244	ND [1]				
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	180	219	ND [1]				
Bromodichloromethane [Dichlorobromomethane]	6579	7988	ND [1]				
Bromoform [Tribromomethane]	25359	30793	ND [1]				
Cadmium	N/A	N/A	ND [1]				
Carbon Tetrachloride	1100	1336	ND [1]				
Chlordane	0.0598	0.0726	ND [1]				
Chlorobenzene	65480	79512	ND [1]				
Chlorodibromomethane [Dibromochloromethane]	4378	5316	ND [1]				
Chloroform [Trichloromethane]	184144	223604	ND [1]				
Chromium (hexavalent)	12009	14583	4.7	4.7	4.7	4.7	4.7
Chrysene	60.2	73.2	ND [1]				
Cresols [Methylphenols]	222519	270202	ND [1]				
Cyanide (free)	N/A	N/A	ND [1]				
4,4'-DDD	0.0478	0.0581	ND [1]				
4,4'-DDE	0.00311	0.00377	ND [1]				
4,4'-DDT	0.00956	0.0116	ND [1]				
2,4'-D	N/A	N/A	0.95	0.95			
Danitol [Fenpropathrin]	11316	13741	NR [2]				
1,2-Dibromoethane [Ethylene Dibromide]	101	123	ND [1]				
m-Dichlorobenzene [1,3-Dichlorobenzene]	14234	17285	NR [2]				
o-Dichlorobenzene [1,2-Dichlorobenzene]	78926	95838	NR [2]				
p-Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A	NR [2]				
3,3'-Dichlorobenzidine	53.5	65.0	ND [1]				
1,2-Dichloroethane	8708	10574	ND [1]				
1,1-Dichloroethylene [1,1-Dichloroethene]	1318561	1601109	ND [1]				
Dichloromethane [Methylene Chloride]	318982	387335	ND [1]				
1,2-Dichloropropane	6196	7524	ND [1]				
1,3-Dichloropropene [1,3-Dichloropropylene]	2846	3457	ND [1]				
Dicofol [Kelthane]	7.17	8.71	ND [1]				
Dieldrin	0.000478	0.000581	ND [1]				
2,4-Dimethylphenol	201824	245073	ND [1]				
Di-*n*-Butyl Phthalate	2210	2684	ND [1]				
Dioxins/Furans [TCDD Equivalents]	0.0000019	0.0000023	ND [1]				
Endrin	0.478	0.581	ND [1]				
Epichlorohydrin	48159	58479	ND [1]				
Ethylbenzene	44666	54237	ND [1]				

Human Health	*70% of Daily Avg.*	*85% of Daily Avg.*	*Average of Samples*	*Sample 1*	*Sample 2*	*Sample 3*	*Sample 4*
Parameter	***(µg/L)***	***(µg/L)***	***(µg/L)***	***(µg/L)***	***(µg/L)***	***(µg/L)***	***(µg/L)***
Ethylene Glycol	401927400	488054700	NR [2]				
Fluoride	N/A	N/A	ND [1]				
Heptachlor	0.00239	0.00290	ND [1]				
Heptachlor Epoxide	0.00693	0.00842	ND [1]				
Hexachlorobenzene	0.0162	0.0197	ND [1]				
Hexachlorobutadiene	5.26	6.39	ND [1]				
Hexachlorocyclohexane (*alpha*)	0.200	0.244	ND [1]				
Hexachlorocyclohexane (*beta*)	6.22	7.55	ND [1]				
Hexachlorocyclohexane (*gamma*) [Lindane]	8.15	9.90	ND [1]				
Hexachlorocyclopentadiene	277	336	ND [1]				
Hexachloroethane	55.7	67.6	ND [1]				
Hexachlorophene	69.3	84.2	29	29	29		
4,4'-Isopropylidenediphenol [Bisphenol A]	382357	464291	NR [2]				
Lead	237	288	ND [1]				
Mercury	0.598	0.726	0.000431	0.000346	0.000265	0.0005	0.00061
Methoxychlor	71.7	87.1	ND [1]				
Methyl Ethyl Ketone	23732856	28818468	ND [1]				
Methyl *tert*-butyl ether [MTBE]	250773	304511	NR [2]				
Nickel	27273	33117	22.575	20.6	27.1	20	22.6
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	0.5	0.5	0.5	0.5	0.5
Nitrobenzene	44810	54412	ND [1]				
N-Nitrosodiethylamine	50.2	61.0	ND [1]				
N-Nitroso-di-*n*-Butylamine	100	122	ND [1]				
Pentachlorobenzene	8.49	10.3	ND [1]				
Pentachlorophenol	6.93	8.42	ND [1]				
Polychlorinated Biphenyls [PCBs]	0.0153	0.0185	ND [1]				
Pyridine	22656	27511	ND [1]				
Selenium	N/A	N/A	ND [1]				
1,2,4,5-Tetrachlorobenzene	5.74	6.97	ND [1]				
1,1,2,2-Tetrachloroethane	630	765	ND [1]				
Tetrachloroethylene [Tetrachloroethylene]	6698	8134	ND [1]				
Thallium	5.50	6.68	ND [1]				
Toluene	N/A	N/A	ND [1]				
Toxaphene	0.263	0.319	ND [1]				
2,4,5-TP [Silvex]	8828	10719	0.95	0.95			
1,1,1-Trichloroethane	18765081	22786170	ND [1]				
1,1,2-Trichloroethane	3971	4822	ND [1]				
Trichloroethylene [Trichloroethene]	1720	2088	ND [1]				
2,4,5-Trichlorophenol	44666	54237	ND [1]				
TTHM [Sum of Total Trihalomethanes]	N/A	N/A	ND [1]				
Vinyl Chloride	394	479	ND [1]				

Appendix C
TDS, Chloride, and Sulfate Screening Calculations

Screening Calculations for Total Dissolved Solids, Chloride, and Sulfate

Menu 1 - Discharge to an Intermittent Stream

Applicant Name:	**Syngenta Crop Protection, LLC**
Permit Number, Outfall:	**00749, 001**
Segment Number:	**1006, using 1016 values per CC memo**

Enter values needed for screening:			**Data Source (edit if different)**
TDS CC - segment criterion - TDS	1000	mg/L	Latest approved TSWQS, Appendix A
Cl CC - segment criterion - chloride	150	mg/L	Latest approved TSWQS, Appendix A
SO4 CC - segment criterion - sulfate	150	mg/L	Latest approved TSWQS, Appendix A
TDS CE - average effluent concentration - TDS	2795	mg/L	Permit application
Cl CE - average effluent concentration - chloride	1201	mg/L	Permit application
SO4 CE - average effluent concentration - sulfate	371.3	mg/L	Permit application

TDS Screening

The TDS screening value is determined by first calculating an initial TDS concentration, C_{TDS}, as follows:

C_{TDS} = (TDS CC / 500 mg/L) * 2,500 mg/L

Where:	C_{TDS} = TDS concentration used to determine Csv screening value
	TDS CC = TDS criterion at the first downstream segment
	500 mg/L = the median TDS concentration in Texas streams
	2,500 mg/L = the minimum TDS screening value

C_{TDS} = 5000 mg/L

The next step is to use the initial C_{TDS} to set the actual TDS screening value, TDS Csv, using the following table:

If C_{TDS}		**Then TDS Csv**
≤ 2,500 mg/L	=	2,500 mg/L
> 2,500 mg/L but ≤ 6,000 mg/L	=	C_{TDS}
> 6,000 mg/L	=	6,000 mg/L

Some specific types of intermittent streams have alternative screening values (Csv):

Specific Type of Intermittent Stream	If C_{TDS} is	Default Csv =
Dry except for short-term flow in immediate response to rainfall.	< 4,000 mg/L	4,000 mg/L
	≥ 4,000 mg/L	C_{TDS}
Constructed ditch conveying stormwater and wastewater, considered water in the state.	< 4,000 mg/L	4,000 mg/L
	≥ 4,000 mg/L	C_{TDS}
Within 3 miles of tidal waters.	—	6,000 mg/L

Once TDS Csv is established, the next step is to compare the effluent TDS concentration, TDS CE, to the screening value. Control measures, which may include effluent limitations, are considered for TDS if the effluent TDS is greater than the screening value.

Values needed for Screening			Data Source
TDS CE - average effluent TDS concentration	2795	mg/L	Permit application
TDS Csv - TDS screening value	**5000**	mg/L	Determined above

No control measures needed if:	2795	≤	5000
Consider control measures if:	2795	>	5000

No control measures needed for TDS

When effluent limitations are established in the permit, the daily average TDS limit is typically set equal to the TDS screening value. The daily maximum TDS limit is calculated as 2.12 times the daily average limit.

Total Dissolved Solids			
Daily Average	=	N/A	mg/L
Daily Maximum	=	N/A	mg/L

Chloride Screening

If TDS limits are necessary or there are concerns about chloride, additional screening can be performed for chloride. First calculate the screening value for chloride, Cl Csv, as follows:

Cl Csv = (TDS Csv /TDS CC) * Cl CC

Where:	
	Cl Csv = chloride screening value
	TDS Csv = TDS screening value
	TDS CC = TDS criterion at the first downstream segment
	Cl CC - chloride criterion at the first downstream segment

Cl Csv = **750** mg/L

Once the Cl Csv is established, the next step is to compare the effluent chloride concentration, Cl CE, to the screening value. Control measures, which may include effluent limitations, are considered for chloride if the effluent chloride is greater than the screening value.

Values needed for Screening			Data Source
Cl CE - average effluent chloride concentration	1201	mg/L	Permit application
Cl Csv - chloride screening value	750	mg/L	Determined above

No control measures needed if:	1201	≤	750
Consider control measures if:	1201	>	750

Consider control measures for chloride

When effluent limitations are established in the permit, the daily average chloride limit is typically set equal to the chloride screening value. The daily maximum chloride limit is calculated as 2.12 times the daily average limit.

	Chloride		
Daily Average	=	750	mg/L
Daily Maximum	=	1,590	mg/L

Sulfate Screening

If TDS limits are necessary or there are concerns about sulfate, additional screening can be performed for sulfate. First calculate the screening value for sulfate, SO4 Csv, as follows:

SO4 Csv = (TDS Csv /TDS CC) * SO4 CC

Where:	SO4 Csv = sulfate screening value
	TDS Csv = TDS screening value
	TDS CC = TDS criterion at the first downstream segment
	SO4 CC - sulfate criterion at the first downstream segment

SO4 Csv = **750** mg/L

Once the SO4 Csv is established, the next step is to compare the effluent sulfate concentration, SO4 CE, to the screening value. Control measures, which may include effluent limitations, are considered for sulfate if the effluent sulfate is greater than the screening value.

Values needed for Screening			Data Source
SO4 CE - average effluent sulfate concentration	371.3	mg/L	Permit application
SO4 Csv - sulfate screening value	750	mg/L	Determined above

No control measures needed if:	371.3	≤	750	
Consider control measures if:	371.3	>	750	

No control measures needed for sulfate

When effluent limitations are established in the permit, the daily average sulfate limit is typically set equal to the sulfate screening value. The daily maximum sulfate limit is calculated as 2.12 times the daily average limit.

		Sulfate	
Daily Average	=	N/A	mg/L
Daily Maximum	=	N/A	mg/L

Appendix D
Comparison of Effluent Limits

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

Out-fall	*Pollutant*	*Technology-Based*				*Water Quality-Based*				*Existing Permit*			
		Daily Avg		*Daily Max*		*Daily Avg*		*Daily Max*		*Daily Avg*		*Daily Max*	
		lbs/day	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L*	*lbs/day*	*mg/L* [1]	*lbs/day*	*mg/L* [1]
001	Flow	Report, MGD		Report, MGD		Report, MGD		Report, MGD		**Report, MGD**		**Report, MGD**	
	Conventionals												
	Oil and Grease	N/A	N/A	N/A	15	N/A	N/A	N/A	N/A	**N/A**	**N/A**	**N/A**	**15**
	pH	Between 6.0 and 9.0 SU				Between 6.0 and 9.0 SU				**Between 6.0 and 9.0 SU**			
	Metals, Cyanide, and Chloride												
	Arsenic, Total [2]	N/A	N/A	N/A	N/A	N/A	0.234	N/A	0.494	**N/A**	**0.1**	**N/A**	**0.2**
	Cadmium, Total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**	**Report**	**N/A**	**Report**
	Chloride	N/A	N/A	N/A	N/A	**N/A**	**Report**	**N/A**	**Report**	N/A	N/A	N/A	N/A
	Chromium, Hexavalent	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**	**Report**	**N/A**	**Report**
	Copper, Total	N/A	N/A	N/A	N/A	0.173	**0.023**	0.368	**0.049**	**0.165**	0.024	**0.350**	0.051
	Cyanide, Free	N/A	N/A	N/A	N/A	N/A	0.009	N/A	0.019	**N/A**	**0.009**	**N/A**	**0.019**
	Lead, Total [3]	1.34	N/A	2.89	N/A	1.157	**0.154**	**2.448**	**0.326**	**1.07**	0.155	2.27	0.329
	Manganese, Total [4]	N/A	N/A	N/A	N/A	N/A	1.0	N/A	2.0	**N/A**	**1.0**	**N/A**	**2.0**
	Mercury, Total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**	**Report**	**N/A**	**Report**
	Selenium, Total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**	**Report**	**N/A**	**Report**
	Silver, Total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**	**Report**	**N/A**	**Report**
	Vanadium, Total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**	**Report**	**N/A**	**Report**
	Organics/Pesticides												
	Aldrin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**	**Report**	**N/A**	**Report**
	Benzo(*a*)anthracene [3]	N/A	N/A	N/A	N/A	**N/A**	**0.0009**	**N/A**	**0.002**	N/A	N/A	N/A	N/A
	Benzo(*a*)pyrene [3]	N/A	N/A	N/A	N/A	**N/A**	**0.00009**	**N/A**	**0.0002**	N/A	N/A	N/A	N/A

[1] Bracketed ([]) values within this column were back-calculated from the mass-based effluent limitations in the existing permit. These back-calculations were conducted by dividing the existing mass-based limit by the daily average permitted flow for Outfall 101 and subsequently divided by a conversion factor of 8.345.

[2] Existing limits are taken from 30 TAC § 319.22.

[3] Technology-based limits would apply at internal Outfall 101, but water quality-based limits are more stringent and are applied at Outfall 001.

[4] Existing daily average limit and proposed daily maximum limit are taken from 30 TAC § 319.22.

Out-fall	Pollutant	Technology-Based				Water Quality-Based				Existing Permit			
		Daily Avg		Daily Max		Daily Avg		Daily Max		Daily Avg		Daily Max	
		lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L[1]	lbs/day	mg/L [1]
001	Chlordane	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**	**Report**	**N/A**	**Report**
	Chlorothalonil [Daconil]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**	**N/A**	**N/A**	**0.6**
	DCPA [Dacthal or Dimethyl 2,3,5,6-tetrachloroterephthalate]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**	**N/A**	**N/A**	**0.168**
	4,4'-DDT	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**	**Report**	**N/A**	**Report**
	4,4'-DDD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**	**Report**	**N/A**	**Report**
	4,4'-DDE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**	**Report**	**N/A**	**Report**
	Dieldrin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**	**Report**	**N/A**	**Report**
	Hexachlorobenzene [3]	0.0083	N/A	0.0156	N/A	**0.00017**	**0.000023**	**0.00037**	**0.000049**	0.0005	0.00015	0.0012	0.00033
	Hexachlorocyclohexane (*alpha*) [*alpha*-BHC]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**	**Report**	**N/A**	**Report**
	Hexachlorocyclohexane (*beta*) [*beta*-BHC]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**	**Report**	**N/A**	**Report**
	Hexachlorocyclohexane (*delta*) [*delta*-BHC]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**	**Report**	**N/A**	**Report**
	Hexachlorocyclohexane (*gamma*) [*gamma*-BHC]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**	**Report**	**N/A**	**Report**
	TOC	N/A	N/A	N/A	55	N/A	N/A	N/A	N/A	**N/A**	**N/A**	**N/A**	**55**
	Xylenes, Total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	**N/A**	**Report**	**N/A**	**Report**
	Whole Effluent Toxicity (WET) limits												
	Mysidopsis bahia (7-day chronic NOEC [5])	N/A		N/A		8%		8%		**8%**		**8%**	
	Menidia beryllina (7-day chronic NOEC)	N/A		N/A		8%		8%		**8%**		**8%**	
	Mysidopsis bahia (24-hour acute LC50 [6])	N/A		N/A		>100%		>100%		**>100%**		**>100%**	
101	Flow	Report, MGD		Report, MGD		N/A		N/A		**0.9 MGD**		**1.6 MGD**	
	Conventionals												
	Biochemical Oxygen Demand, 5-day (BOD_5)	**N/A**	51.5	**N/A**	127.5	Existing limits are protective.				180	**[24.0]**	500	**[66.6]**
	Total Suspended Solids (TSS)	**N/A**	36.4	**N/A**	118.6	N/A	N/A	N/A	N/A	215	**[28.6]**	500	**[66.6]**
	Ammonia, as Nitrogen	**N/A**	2.7	**N/A**	5.3	Existing limits are protective.				20	**[2.7]**	40	**[5.3]**
	Total Organic Carbon (TOC)	**N/A**	85	**N/A**	170	N/A	N/A	N/A	N/A	640	**[85]**	1,280	**[170]**
	Chemical Oxygen Demand (COD)	**N/A**	163	**N/A**	251	N/A	N/A	N/A	N/A	1,167	**[155]**	1,885	**[251]**

5 The lethal NOEC is defined as the greatest effluent dilution at which no significant lethality is demonstrated. Significant lethality is defined as a statistically significant difference between a specified effluent dilution and the control.

6 The LC50 (Lethal Concentration 50) is defined as the effluent dilution at with 50% of the organisms survive.

Out-fall	Pollutant	Technology-Based				Water Quality-Based				Existing Permit			
		Daily Avg		Daily Max		Daily Avg		Daily Max		Daily Avg		Daily Max	
		lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L[1]	lbs/day	mg/L [1]
101	*Arsenic and Cyanide*												
	Arsenic, Total	**N/A**	N/A	**N/A**	N/A	N/A	N/A	N/A	N/A	1.50	**[0.2]**	2.25	**[0.3]**
	Cyanide, Total	**N/A**	0.130	**N/A**	0.377	N/A	N/A	N/A	N/A	0.973	**[0.130]**	2.83	**[0.377]**
	Organics/Pesticides												
	Acenaphthene	**N/A**	**0.001**	**N/A**	**0.003**	N/A	N/A	N/A	N/A	0.012	[0.002]	0.033	[0.004]
	Acenaphthylene	**N/A**	**0.001**	**N/A**	**0.003**	N/A	N/A	N/A	N/A	0.012	[0.002]	0.033	[0.004]
	Acrylonitrile	**N/A**	0.007	**N/A**	**0.017**	N/A	N/A	N/A	N/A	0.054	**[0.007]**	0.135	[0.018]
	Anthracene	**N/A**	**0.001**	**N/A**	**0.003**	N/A	N/A	N/A	N/A	0.012	[0.002]	0.033	[0.004]
	Benzene	**N/A**	0.025	**N/A**	0.086	N/A	N/A	N/A	N/A	0.176	**[0.023]**	0.647	**[0.086]**
	Benzo(*a*)anthracene	**N/A**	**0.001**	**N/A**	**0.003**	N/A	N/A	N/A	N/A	0.012	[0.002]	0.033	[0.004]
	3,4-Benzofluoranthene [Benzo(*b*)fluoranthene]	**N/A**	**0.001**	**N/A**	**0.004**	N/A	N/A	N/A	N/A	0.013	[0.002]	0.034	[0.005]
	Benzo(*k*)fluoranthene	**N/A**	**0.001**	**N/A**	**0.003**	N/A	N/A	N/A	N/A	0.012	[0.002]	0.033	[0.004]
	Benzo(*a*)pyrene	**N/A**	**0.001**	**N/A**	**0.004**	N/A	N/A	N/A	N/A	0.013	[0.002]	0.034	[0.005]
	Bis(2-ethylhexyl) phthalate	**N/A**	**0.007**	**N/A**	**0.019**	N/A	N/A	N/A	N/A	0.058	[0.008]	0.156	[0.021]
	Bromodichloromethane [Dichlorobromomethane]	**N/A**	0.079	**N/A**	0.212	N/A	N/A	N/A	N/A	0.595	**[0.079]**	1.594	**[0.212]**
	Bromomethane	**N/A**	0.079	**N/A**	0.212	N/A	N/A	N/A	N/A	0.595	**[0.079]**	1.594	**[0.212]**
	Chlorobenzene	**N/A**	0.019	**N/A**	0.044	N/A	N/A	N/A	N/A	0.071	**[0.009]**	0.133	**[0.018]**
	Chloroethane	**N/A**	0.008	**N/A**	0.022	N/A	N/A	N/A	N/A	0.058	**[0.008]**	0.150	**[0.020]**
	Chloromethane [Methyl Chloride]	**N/A**	0.056	**N/A**	0.128	N/A	N/A	N/A	N/A	0.166	**[0.022]**	0.366	**[0.049]**
	2-Chlorophenol	**N/A**	0.020	**N/A**	0.062	N/A	N/A	N/A	N/A	0.147	**[0.020]**	0.466	**[0.062]**
	Chlorothalonil [Daconil]	**N/A**	0.007	**N/A**	0.023	N/A	N/A	N/A	N/A	0.053	**[0.007]**	0.176	**[0.023]**
	Chrysene	**N/A**	**0.001**	**N/A**	**0.003**	N/A	N/A	N/A	N/A	0.012	[0.002]	0.033	[0.004]
	Dibromochloromethane [Chlorodibromomethane]	**N/A**	0.109	**N/A**	0.444	N/A	N/A	N/A	N/A	0.822	**[0.109]**	3.332	**[0.444]**
	Di-*n*-butyl phthalate	**N/A**	**0.001**	**N/A**	**0.003**	N/A	N/A	N/A	N/A	0.015	[0.002]	0.032	[0.004]
	1,2-Dichlorobenzene	**N/A**	0.058	**N/A**	0.150	N/A	N/A	N/A	N/A	0.366	**[0.049]**	0.775	**[0.103]**
	1,3-Dichlorobenzene	**N/A**	0.011	**N/A**	0.028	N/A	N/A	N/A	N/A	0.017	**[0.002]**	0.025	**[0.003]**
	1,4-Dichlorobenzene	**N/A**	0.019	**N/A**	0.044	N/A	N/A	N/A	N/A	0.071	**[0.009]**	0.133	**[0.018]**
	1,1-Dichloroethane	**N/A**	0.002	**N/A**	0.004	N/A	N/A	N/A	N/A	0.012	**[0.002]**	0.033	**[0.004]**
	1,2-Dichloroethane	**N/A**	0.051	**N/A**	0.161	N/A	N/A	N/A	N/A	0.323	**[0.043]**	1.003	**[0.134]**
	1,1-Dichloroethylene	**N/A**	0.011	**N/A**	0.018	N/A	N/A	N/A	N/A	0.076	**[0.010]**	0.119	**[0.016]**
	1,2-*trans*-Dichloroethylene	**N/A**	0.014	**N/A**	0.035	N/A	N/A	N/A	N/A	0.100	**[0.013]**	0.257	**[0.034]**
	Dichloromethane [Methylene Chloride]	**N/A**	0.025	**N/A**	0.062	N/A	N/A	N/A	N/A	0.190	**[0.025]**	0.423	**[0.056]**
	2,4-Dichlorophenol	**N/A**	0.025	**N/A**	0.071	N/A	N/A	N/A	N/A	0.185	**[0.025]**	0.533	**[0.071]**

Out-fall	Pollutant	Technology-Based				Water Quality-Based				Existing Permit			
		Daily Avg		Daily Max		Daily Avg		Daily Max		Daily Avg		Daily Max	
		lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L[1]	lbs/day	mg/L [1]
101	1,2-Dichloropropane	**N/A**	0.100	**N/A**	0.188	N/A	N/A	N/A	N/A	0.728	**[0.097]**	1.094	**[0.146]**
	1,3-Dichloropropene [1,3-Dichloropropylene]	**N/A**	0.031	**N/A**	0.084	N/A	N/A	N/A	N/A	0.138	**[0.018]**	0.210	**[0.028]**
	Diethyl phthalate	**N/A**	**0.003**	**N/A**	**0.008**	N/A	N/A	N/A	N/A	0.045	[0.006]	0.114	[0.015]
	2,4-Dimethylphenol	**N/A**	0.011	**N/A**	0.024	N/A	N/A	N/A	N/A	0.045	**[0.011]**	0.114	**[0.023]**
	Dimethyl phthalate	**N/A**	0.001	**N/A**	0.003	N/A	N/A	N/A	N/A	0.086	**[0.001]**	0.171	**[0.003]**
	4,6-Dinitro-*o*-cresol	**N/A**	0.006	**N/A**	0.021	N/A	N/A	N/A	N/A	0.011	**[0.006]**	0.026	**[0.021]**
	2,4-Dinitrophenol	**N/A**	0.090	**N/A**	0.319	N/A	N/A	N/A	N/A	0.044	**[0.005]**	0.155	**[0.009]**
	2,4-Dinitrotoluene	**N/A**	0.008	**N/A**	0.021	N/A	N/A	N/A	N/A	0.040	**[0.008]**	0.069	**[0.021]**
	2,6-Dinitrotoluene	**N/A**	0.019	**N/A**	0.048	N/A	N/A	N/A	N/A	0.063	**[0.019]**	0.159	**[0.048]**
	Ethylbenzene	**N/A**	0.028	**N/A**	0.089	N/A	N/A	N/A	N/A	0.143	**[0.020]**	0.358	**[0.068]**
	Fluoranthene	**N/A**	0.002	**N/A**	**0.004**	N/A	N/A	N/A	N/A	0.152	**[0.002]**	0.514	[0.005]
	Fluorene	**N/A**	**0.001**	**N/A**	**0.003**	N/A	N/A	N/A	N/A	0.014	[0.002]	0.038	[0.004]
	Hexachlorobutadiene	**N/A**	0.011	**N/A**	0.028	N/A	N/A	N/A	N/A	0.011	**[0.001]**	0.027	**[0.004]**
	Hexachloroethane	**N/A**	0.015	**N/A**	0.059	N/A	N/A	N/A	N/A	0.012	**[0.002]**	0.030	**[0.004]**
	Naphthalene	**N/A**	0.014	**N/A**	**0.036**	N/A	N/A	N/A	N/A	0.105	**[0.014]**	0.281	[0.037]
	Nitrobenzene	**N/A**	0.167	**N/A**	0.477	N/A	N/A	N/A	N/A	0.015	**[0.002]**	0.038	**[0.005]**
	2-Nitrophenol	**N/A**	0.005	**N/A**	0.017	N/A	N/A	N/A	N/A	0.023	**[0.003]**	0.039	**[0.005]**
	4-Nitrophenol	**N/A**	0.012	**N/A**	0.043	N/A	N/A	N/A	N/A	0.040	**[0.005]**	0.069	**[0.009]**
	Phenanthrene	**N/A**	**0.001**	**N/A**	**0.003**	N/A	N/A	N/A	N/A	0.012	[0.002]	0.033	[0.004]
	Phenol	**N/A**	0.010	**N/A**	0.018	N/A	N/A	N/A	N/A	0.071	**[0.009]**	0.124	**[0.017]**
	Pyrene	**N/A**	**0.001**	**N/A**	**0.004**	N/A	N/A	N/A	N/A	0.014	[0.002]	0.037	[0.005]
	Tetrachloroethylene	**N/A**	0.016	**N/A**	0.043	N/A	N/A	N/A	N/A	0.105	**[0.014]**	0.266	**[0.035]**
	Tetrachloromethane [Carbon Tetrachloride]	**N/A**	0.021	**N/A**	0.050	N/A	N/A	N/A	N/A	0.086	**[0.011]**	0.180	**[0.024]**
	Toluene	**N/A**	0.017	**N/A**	**0.050**	N/A	N/A	N/A	N/A	0.124	**[0.017]**	0.38	[0.051]
	Tribromomethane [Bromoform]	**N/A**	0.109	**N/A**	0.444	N/A	N/A	N/A	N/A	0.822	**[0.109]**	3.332	**[0.444]**
	1,2,4-Trichlorobenzene	**N/A**	0.015	**N/A**	0.059	N/A	N/A	N/A	N/A	0.038	**[0.005]**	0.078	**[0.010]**
	1,1,1-Trichloroethane	**N/A**	0.013	**N/A**	0.035	N/A	N/A	N/A	N/A	0.100	**[0.013]**	0.257	**[0.034]**
	1,1,2-Trichloroethane	**N/A**	0.002	**N/A**	0.009	N/A	N/A	N/A	N/A	0.012	**[0.002]**	0.030	**[0.004]**
	Trichloroethylene	**N/A**	0.002	**N/A**	0.005	N/A	N/A	N/A	N/A	0.012	**[0.002]**	0.030	**[0.004]**
	Trichloromethane [Chloroform]	**N/A**	0.020	**N/A**	0.050	N/A	N/A	N/A	N/A	0.10	**[0.013]**	0.219	**[0.029]**
	Vinyl Chloride	**N/A**	**0.007**	**N/A**	**0.013**	N/A	N/A	N/A	N/A	0.058	[0.008]	0.150	[0.020]
002	Flow	Report, MGD		Report, MGD		N/A		N/A		**Report, MGD**		**Report, MGD**	
	TOC	N/A	N/A	N/A	55	N/A	N/A	N/A	N/A	**N/A**	**N/A**	**N/A**	**55**
	Oil and Grease	N/A	N/A	N/A	15	N/A	N/A	N/A	N/A	**N/A**	**N/A**	**N/A**	**15**
	pH	Between 6.0 and 9.0 SU				N/A				**Between 6.0 and 9.0 SU**			

Out-fall	Pollutant	Technology-Based				Water Quality-Based				Existing Permit			
		Daily Avg		Daily Max		Daily Avg		Daily Max		Daily Avg		Daily Max	
		lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L[1]	lbs/day	mg/L [1]
003	Flow	Report, MGD		Report, MGD		N/A		N/A		**Report, MGD**		**Report, MGD**	
	TOC	N/A	N/A	N/A	55	N/A	N/A	N/A	N/A	**N/A**	**N/A**	**N/A**	**55**
	Oil and Grease	N/A	N/A	N/A	15	N/A	N/A	N/A	N/A	**N/A**	**N/A**	**N/A**	**15**
	pH	Between 6.0 and 9.0 SU				N/A				**Between 6.0 and 9.0 SU**			
004	Flow	Report, MGD		Report, MGD		N/A		N/A		**Report, MGD**		**Report, MGD**	
	TOC	N/A	N/A	N/A	55	N/A	N/A	N/A	N/A	**N/A**	**N/A**	**N/A**	**55**
	Oil and Grease	N/A	N/A	N/A	15	N/A	N/A	N/A	N/A	**N/A**	**N/A**	**N/A**	**15**
	pH	Between 6.0 and 9.0 SU				N/A				**Between 6.0 and 9.0 SU**			
005	Flow	Report, MGD		Report, MGD		N/A		N/A		**Report, MGD**		**Report, MGD**	
	TOC	N/A	N/A	N/A	55	N/A	N/A	N/A	N/A	**N/A**	**N/A**	**N/A**	**55**
	Oil and Grease	N/A	N/A	N/A	15	N/A	N/A	N/A	N/A	**N/A**	**N/A**	**N/A**	**15**
	pH	Between 6.0 and 9.0 SU				N/A				**Between 6.0 and 9.0 SU**			
006	Flow	Report, MGD		Report, MGD		N/A		N/A		**Report, MGD**		**Report, MGD**	
	TOC	N/A	N/A	N/A	55	N/A	N/A	N/A	N/A	**N/A**	**N/A**	**N/A**	**55**
	Oil and Grease	N/A	N/A	N/A	15	N/A	N/A	N/A	N/A	**N/A**	**N/A**	**N/A**	**15**
	pH	Between 6.0 and 9.0 SU				N/A				**Between 6.0 and 9.0 SU**			