

This file contains the following documents:

- 1. Summary of application (in plain language)
 - English
 - Alternative Language (Spanish)
- 2. First Notice (NORI-Notice of Receipt of Application and Intent to Obtain a Permit)
 - English
 - Alternative Language (Spanish)
- 3. Application materials



Este archivo contiene los siguientes documentos:

- 1. Resumen en lenguaje sencillo (PLS, por sus siglas en inglés) de la actividad propuesta
 - Inglés
 - Idioma alternativo (español)
- 2. Primer aviso (NORI, el Aviso de Recepción de Solicitud e Intención de Obtener un Permiso)
 - Inglés
 - Idioma alternativo (español)
- 3. Solicitud original

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 <u>30 Texas Administrative</u> <u>Code §39.426</u>, **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.

Shintech Incorporated (CN600128425) operates Shintech Freeport Site RN100213198. a PVC manufacturing facility. The facility is located at 5618 Hwy 332 East, in Freeport, Brazoria County, Texas 77541. Shintech requests a Texas Pollutant Discharge Elimination System (TPDES) permit renewal for a 3.2 billion pound per year Polyvinylchloride (PVC) manufacturing facility in Freeport, Texas. The facility is composed of three PVC production facilities, each equipped with its own wastewater treatment system. The wastewater treatment system will treat process and domestic wastewater prior to their discharge off-site via three (3) process outfalls (001, 004, 006). The TPDES permit renewal also includes five (5) stormwater outfalls (002, 003, 005, 007) for off-site discharge of stormwater collected on-site.

Discharges from the facility are expected to contain Total Suspended Solids (TSS), Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Oil and Grease (O&G), Total Chromium, and Total Zinc. Expected discharges of process and domestic wastewater, stormwater, utility wastewater, and steam condensate are treated by *Aerobic biological treatment process*.

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.

Shintech Incorporated (CN600128425) opera el sitio Shintech Freeport RN100213198. una planta de fabricación de PVC. La instalación está ubicada en 5618 Hwy 332 East, en Freeport, Condado de Brazoria, Texas 77541. Shintech solicita una renovación del permiso del Sistema de eliminación de descargas contaminantes de Texas (TPDES) para una instalación de fabricación de cloruro de polivinilo (PVC) de 3,2 mil millones de libras por año en Freeport, Texas. La instalación se compone de tres instalaciones de producción de PVC, cada una equipada con su propio sistema de tratamiento de aguas residuales. El sistema de tratamiento de aguas residuales tratará las aguas residuales domésticas y de proceso antes de su descarga fuera del sitio a través de tres (3) emisarios de proceso (001, 004, 006). La renovación del permiso TPDES también incluye cinco (5) emisarios de aguas pluviales (002, 003, 005, 007) para descarga fuera del sitio de aguas pluviales recolectadas en el sitio.

Se espera que las descargas de la instalación contengan sólidos suspendidos totales (SST), demanda bioquímica de oxígeno (DBO), demanda química de oxígeno (DQO), aceite y grasa (O&G), cromo total y zinc total. Las descargas esperadas de aguas residuales domésticas y de proceso, aguas pluviales, aguas residuales de servicios públicos y condensado de vapor se tratan mediante un proceso de tratamiento biológico aeróbico.

INSTRUCTIONS

- 1. Enter the name of applicant in this section. The applicant name should match the name associated with the customer number.
- 2. Enter the Customer Number in this section. Each Individual or Organization is issued a unique 11-digit identification number called a CN (e.g. CN123456789).
- 3. Choose "operates" in this section for existing facility applications or choose "proposes to operate" for new facility applications.
- 4. Enter the name of the facility in this section. The facility name should match the name associated with the regulated entity number.
- 5. Enter the Regulated Entity number in this section. Each site location is issued a unique 11-digit identification number called an RN (e.g. RN123456789).
- 6. Choose the appropriate article (a or an) to complete the sentence.
- 7. Enter a description of the facility in this section. For example: steam electric generating facility, nitrogenous fertilizer manufacturing facility, etc.
- 8. Choose "is" for an existing facility or "will be" for a new facility.
- 9. Enter the location of the facility in this section.
- 10. Enter the City nearest the facility in this section.
- 11. Enter the County nearest the facility in this section.
- 12. Enter the zip code for the facility address in this section.
- 13. Enter a summary of the application request in this section. For example: renewal to discharge 25,000 gallons per day of treated domestic wastewater, new application to discharge process wastewater and stormwater on an intermittent and flow-variable basis, or major amendment to reduce monitoring frequency for pH, etc. If more than one outfall is included in the application, provide applicable information for each individual outfall.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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

PERMIT NO. WQ0004818000

APPLICATION. Shintech Incorporated, 5618 Highway 332 East, Freeport, Texas 77541, which owns a manufacturing facility for PVC resin, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WO0004818000 (EPA I.D. No. TX0053813) to authorize treated wastewater and stormwater at a volume not to exceed a daily average flow of 1,110,000 gallons per day via Outfall 001, 1,100,000 gallons per day via Outfall 004, 1,060,000 gallons per day via Outfall 006, and stormwater at an intermittent and flow variable volume via Outfalls 002, 003, 005, 007, and 008. The facility is located at 5618 Highway 332 East, in the city of Freeport, in Brazoria County, Texas 77541. The discharge route is from the plant site to from the plant site via Outfalls 001, 004, and 006 to Dow "A" Canal; thence to Brazos River Tidal; via Outfalls 002 and 003 to a drainage ditch; thence to Flag Lake Drainage Canal; thence to East Union Bayou; thence to Intracoastal Waterway; thence to Old Brazos River Channel Tidal; and via Outfalls 005, 007, and 008 to the Velasco Drainage District Ditch; thence to Flag Lake Drainage Canal; thence to East Union Bayou; thence to Intracoastal Waterway; thence to Old Brazos River Channel Tidal. TCEQ received this application on June 10, 2024. The permit application will be available for viewing and copying at Freeport City Library, 410 Brazosport Boulevard, Freeport, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: https://www.tceq.texas.gov/permitting/wastewater/pendingpermits/tpdes-applications. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.3595,28.9956&level=18

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

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

ADDITIONAL NOTICE. TCEQ's Executive Director has determined the application is administratively complete and will conduct a technical review of the application. After technical review of the application is complete, the Executive Director may prepare a draft

permit and will issue a preliminary decision on the application. Notice of the Application and Preliminary Decision will be published and mailed to those who are on the county-wide mailing list and to those who are on the mailing list for this application. That notice will contain the deadline for submitting public comments.

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

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

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

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

The Commission may only grant a request for a contested case hearing on issues the requestor submitted in their timely comments that were not subsequently withdrawn. If a hearing is granted, the subject of a hearing will be limited to disputed issues of fact or mixed questions of fact and law relating to relevant and material water quality concerns submitted during the comment period.

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

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

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

AGENCY CONTACTS AND INFORMATION. All public comments and requests must be submitted either electronically at https://www14.tceq.texas.gov/epic/eComment/, or in writing to the Texas Commission on Environmental Quality, Office of the Chief Clerk, MC-105, P.O. Box 13087, Austin, Texas 78711-3087. Please be aware that any contact information you provide, including your name, phone number, email address and physical address will become part of the agency's public record. For more information about this permit application or the permitting process, please call the TCEQ Public Education Program, Toll Free, at 1-800-687-4040 or visit their website at www.tceq.texas.gov/goto/pep. Si desea información en Español, puede llamar al 1-800-687-4040.

Further information may also be obtained from Shintech Incorporated, at the address stated above or by calling Mr. Vtesh Chellappa, P.E., Environmental Engineer, at 979-705-4235.

Issuance Date: July 18, 2024

Comisión de Calidad Ambiental del Estado de Texas



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

PERMISO NO. WQ0004818000

SOLICITUD. Shintech Incorporated, 5618 Highway 332 East, Freeport, Texas 77541, propietaria de una planta de fabricación de resina de PVC, ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) renovar el Permiso No. WQ0004818000 (EPA) del Sistema de Eliminación de Descargas Contaminantes de Texas (TPDES). I.D. No. TX0053813) para autorizar aguas residuales tratadas en un volumen que no exceda un flujo promedio diario de 1,110,000 galones por día a través del Emisario 001, 1,100,000 galones por día a través del Emisario 004, 1,060,000 galones por día a través del Emisario 006 y aguas pluviales de manera intermitente y flujo de volumen variable a través de los Emisarios 002, 003, 005, 007 y 008. La instalación está ubicada en 5618 Highway 332 East, en la ciudad de Freeport, en el condado de Brazoria, Texas 77541. La ruta de descarga es desde el sitio de la planta hasta el sitio de la planta a través de los Emisarios 001, 004 y 006 hasta el Canal Dow "A", de allí hasta Brazos River Tidal; por los Emisarios 002 y 003 hasta una zanja de drenaje; de allí al Canal de Drenaje de Flag Lake, de allí a East Union Bayou; de allí al Intracoastal Waterway; de allí hasta Old Brazos River Channel Tidal; y por los Emisarios 005, 007 y 008 hasta la Zanja del Distrito de Drenaje de Velasco; de allí al canal de drenaje de Flag Lake; de allí a East Union Bayou; de allí al Intracoastal Waterway; de allí hasta Old Brazos River Channel Tidal. La TCEQ recibió esta solicitud el 10 de junio de 2024. La solicitud de permiso estará disponible para ver y copiar en la Biblioteca de la ciudad de Freeport, 410 Brazosport Boulevard, Freeport, Texas, antes de la fecha de publicación de este aviso en el periódico. La solicitud, incluidas las actualizaciones y los avisos asociados, están disponibles electrónicamente en la siguiente página web:

https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdesapplications. Este enlace a un mapa electrónico de la ubicación general del sitio o instalación se proporciona como cortesía pública y no forma parte de la solicitud o aviso. Para conocer la ubicación exacta, consulte la aplicación.

https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.3595,28.9956&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 DE LA TCEQ. Todos los comentarios escritos del público y los para pedidos una reunión deben ser presentados a la Oficina del Secretario Principal, MC 105, TCEQ, P.O. Box 13087, Austin, TX 78711-3087 o por el internet at www.tceq.texas.gov/about/comments.html. 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. Si necesita más información en Español sobre esta solicitud para un permiso o el proceso del permiso, por favor llame a El Programa de Educación Pública de la TCEQ, sin cobro, al 1-800-687-4040. La información general sobre la TCEQ puede ser encontrada en nuestro sitio de la red: www.tceq.texas.gov.

También se puede obtener información adicional del Shintech Inc. a la dirección indicada arriba o llamando a Vtesh Chellappa al 979-705-4235.

Fecha de emisión 18 de julio de 2024



June 7, 2024

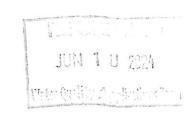
Via Fedex and E-mail

Application Review and Processing Team, MC-148 Executive Director Texas Commission on Environmental Quality 12100 Park 35 Austin, TX 78753

Re:

Shintech Incorporated TPDES Permit Renewal

Fermit No.: W. 332, Freeport (Brazoria County), Texas Permit No.: WQ0004818000



Shintech Inc. is respectfully submitting our application for our TPDES permit renewal. Shintech Inc. is respectfully submitted on application for our IFDES permit renewal.

Enclosed are the Industrial Administrative and Technical Reports, and Attachments that Permit Review Team, contain all the supporting documents.

The Payment Submittal Form and the Industrial Administrative Report 1.1 Item 3. Original

The Payment Submittal Form and the Industrial Administrative Report 1.1 Item 3. Original

The Payment Submittal Form and the Industrial Administrative Report 1.1 Item 3. Original The Payment Submittal Form and the measurement 1.1 Item 3. Original Photographs have not been included with this submittal. These are still in process and will photographs have not been included. be sent as soon as they are completed.

Please note that the following sections of the application do not apply to Shintech thus have not been completed:

Technical Report, Sections 3.0, 3.1, 3.2, 4.1, 5.0, 6.0, 8.0, 9.0, 10.0, 11.0, and 11.1

If you have any questions regarding this submittal, please contact Vtesh Chellappa at 979-233-7861 ext. 235.

Sincerely.

Christopher Hall Environmental Manager

Shintech Inc.

Enclosure

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

TCEQ INDUSTRIAL WASTEWAT ER PERMIT APPLICATION

INDUSTRIAL ADMINIST RATIVE REPORT 1.0

This report is required for all applications for TPDES permits and TLAPs. Contact the Applications are required for all applications are questions about completing this report. This report is required for all applications for 1805 Definits and 1LAPS. Contact the Appli Cation report is required for all applications about completing this report Review and Processing Team at 512-239-4671 with any questions about completing this report. Item 1. Application Information and Fees (Instructions, Page 25)

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categorical colored (40 CFR Parts 400-471)	7 61 250	☑ \$1,250	\$1,215	\$450
Minor facility subject to Erracategorical effluent guidelines (40 CFR Parts 400-471)	N/A¹	\$2,050	\$2,015	1 7450

For TCEQ Use Only

TCEO-10411 (10/24/2022) Industrial Wastewater Application Administrative Report

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

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Applicant Information (2 Applicant Information
a. Customer Number, if applicant is an existing customer: CN600128425 Note: Locate the customer number using the TCEO's Central Registry Customer Search? Note: Locate the customer number using for this permit: Shintech Incorporated
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b. Legal name of the facility must apply for the personal for the personal for the facility must apply for the personal for the facility must apply for the personal for the per
as filed who entity.
c. Name and title of the person signing the application. (Note: TTC particle of the person signing the application. (Note: TTC particle of the person signing the application. (Note: TTC particle of the person signing the application. (Note: TTC particle of the person signing the application. (Note: TTC particle of the person signing the application. (Note: TTC particle of the person signing the application. (Note: TTC particle of the person signing the application. (Note: TTC particle of the person signing the application. (Note: TTC particle of the person signing the application. (Note: TTC particle of the person signing the application. (Note: TTC particle of the person signing the application.)
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Note: The entity with overall financial repairs and the facility owner. Item 3. Co-applicant Information (Instructions, Page 26) Example 26 Check this box if there is no co-applicant; otherwise, complete the below questions. Example 26 Check this box if there is no co-applicant; otherwise, complete the below questions.
them 3. This box if there is no co-applicant, other armit. Click to enter text.
Check this box is applying for this permit. Check this Comptroller of Public
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 a. Legal name of the entity (cell of particle). Note: The legal name must be spelled exactly as filed with the fixed particle. Accounts, County, or in the legal documents forming the entity. b. Customer Number (if applicant is an existing customer): CNClick to enter lext. b. Customer Number (if applicant using the TCEQ's Central Registry Customer Search.
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Title: Click to enter text. d. Will the co-applicant have overall financial responsibility for the facility?
d. Will the co-applicant have overall
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Page 2 of 2
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Core Data Form (TCEQ Form 10400) the customer type selected on the	
Item 4. Core Data Form (Instructions, Pages 26) a. Complete one Core Data Form (TCEQ Form 10400) for each customer (applicant and of applicant(s)) and include as an attachment. If the customer type selected on the Core applicant(s)) and include as an attachment 1 of the Administrative Report. Attachment: A Individual, complete Attachment 1 of the Administrative Report.	
applications, Page 20)	lia application.
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Provide names of two days can be contact about	
mulcaic Tachnicai Contra	
a. ☑ Administrative Contact ☑ Mr. ☐ Ms. Full Name (First and Last): Vtesh Chellappa ☑ Mr. ☐ Ms. Full Name (First and Last): PE	
☑ Mr. ☐ Ms. Full Name (First on Engineer Credential: PE Title: Environmental Engineer Credential: PE	
Title: Environmental Engineer	
igation Name. Since	l- com
Address: 5010 American	@Shin-tecn.com
City FreeDort State Town No. Click to enter texts	
Phone No: 979-705-4235 Phone No: 979-705-4235 Technical Contact	
. 1 100-	
b. ⊠ Administrative Contact □ Mr. □ Ms. Full Name (First and Last): Chris Hall □ Mr. □ Ms. Full Namager Credential: Click to enter text.	JUN 18 2024
☑ Mr. ☐ Ms. Tuber Credential: Chek to see Title: Environmental Manager Chek to see Title	Material of the last train
Title: Environmental Manages Organization Name: Shintech Incorporated Zip Code: 7754	Englishment I
Organization Name: State: Texas Mailing Address: 5618 Hwy 332 E State: Texas Email: CHall@S	Le toch com
Mailing Address: 5618 Hwy 332 E State: Texas Email: CHall@S	hin-tech.com
- F-000000	
Phone No: 979-705-4307 Fax No: CITCA IS	
click to enter text.	
Contact Information (Institute throughout the permit to	erm.
Attachment: Click to enter text. Item 6. Permit Contact Information (Instructions, Pages 26) Provide two names of individuals that can be contacted throughout the permit to the permi	
Provide two names of individuals that Provide two names of individuals that the individuals that the individual that the individu	
a. Mr. Ms. Full Name (First and Credential: PE	
a. Mr. Ms. Full Name (First and Title: Environmental Engineer Credential: PE	
anization Name. Similar	75 <u>41</u>
Mailing Address: 5010 III.	ellappa@Shin-tech.com
City FreeDort	
Phone No: 979-705-4235	
Full Name (First and Last): Chris rian	
Phone No: 979-705-4255 b. ⋈ Mr. □ Ms. Full Name (First and Last): Chris Hall Title: Environmental Manager Credential: Click to enter text. Name: Shintech Incorporated	
Title: Environmental Manages Organization Name: Shintech Incorporated Total Hwy 332 E	
Organization Name. Shinter	Page 3 of 2

State: <u>Texas</u>

Zip Code: <u>77541</u> Email: CHall@Shin-tech.com Fax No: Click to enter text. City: Freeport Phone No: <u>979-705-4307</u>

Attachment: Click to enter text.

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

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

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

☑ Mr. □ Ms. Full Name (First and Last): <u>Vtesh Chellappa</u>

Title: Environmental Engineer Credential: PE Organization Name: Shintech Incorporated

Mailing Address: 5618 Hwy 332 E

City: Freeport

Email: VChellappa@Shin-tech.com State: Texas Fax No: Click to enter text.

Phone No: <u>979-705-4235</u> Item 8. DMR/MER Contact Information (Instructions, Page 27)

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

Zip Code: <u>77541</u>

☑ Mr. ☐ Ms. Full Name (First and Last): Paul Spinks

Title: Site Manager

Credential: Click to enter text.

Organization Name: Shintech Incorporated

Mailing Address: 5618 Hwy 332 E

Zip Code: <u>77541</u> Email: PSpinks@Shin.tech.com State: Texas City: Freeport Fax No: Click to enter text.

Phone No: 979-705-4328

Item 9. NOTICE INFORMATION (Instructions, Pages 27

Individual Publishing the Notices

☑ Mr. ☐ Ms. Full Name (First and Last): <u>Vtesh Chellappa</u>

Title: Environmental Engineer Credential: PE

Organization Name: Shinech Incorported

Mailing Address: 5618 Hwy 332 E

Zip Code: <u>77541</u> State: Texas

Email: VChellappa@Shin-tech.com Fax No: Click to enter text. City: Freeport

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

⊠ E-mail: VChellappa@Shin-tech.com

☐ Fax: Click to enter text.

□ Regular Mail (USPS)

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

	ntact in the Notice Mr.	
d.	blic Viewing Location Information ote: If the facility or outfall is located in more than one county, provide a public viewing place for such county. Location within the building: Click to enter such county. Location within the building: Click to enter such county. Ext. hysical Address of Building: 410 Brazosport Blvd.	
e.	Silingual Notice Requirements This information is required for new, major amendment, minor amendment or minor modification, and renewal applications. This section of the application is only used to determine if alternative language notices will be in your public needed. Complete instructions on publishing the alternative language notices will be in your public notice package. Please call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine whether an alternative language notices are required. 1. Is a bilingual education program required by the Texas Education Code at the elementary or middle school nearest to the facility or proposed facility?	
	 ☑ Yes ☐ No If no, publication of an alternative language notice is not required; skip to Item 8 (Regulated Entity and Permitted Site Information.) 2. Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school? ☑ Yes ☐ No 3. Do the students at these schools attend a bilingual education program at another location? ☐ Yes ☒ No 4. Would the school be required to provide a bilingual education program, but the school has waived out of this requirement under 19 TAC §89.1205(g)? ☐ Yes ☒ No ☐ N/A 5. If the answer is yes to question 1, 2, 3, or 4, public notices in an alternative language are required. Which language is required by the bilingual program? Spanish f. Plain Language Summary Template - Complete the Plain Language Summary at the end of this 	
	Plain Language Summary Temporary	

g. Complete one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment and include as an attachment. Attachment: $\underline{\mathbf{B}}$

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

a.	TCEQ issued Regulated Entity Number (RN), if available: RN100	213198		
	Note: If your business site is part of a larger business site, a Realready be assigned for the larger site. Use the RN assigned for Central Registry to determine the RN or to see if the larger site Regulated Entity. If the site is found, provide the assigned RN.	the larger site. Search the TCEQ's		
b.	Name of project or site (the name known by the community wh	ere located): <u>Shintech Freeport Plant</u>		
c.	Is the location address of the facility in the existing permit the	same?		
	Note: If the facility is located in Bexar, Comal, Hays, Kinney, Me County, additional information concerning protection of the Ed			
d.	Owner of treatment facility:			
	☐ Mr. ☐ Ms. Full Name (First and Last): Click to enter text.			
	or Organization Name: Shintech Incorporated			
	Mailing Address: <u>5618 Hwy 332 E</u>			
	City: <u>Freeport</u> State: <u>Texas</u>	Zip Code: <u>77541</u>		
	Phone No: <u>979-705-4235</u> Fax No: <u>Click to enter text.</u>	Email: <u>VChellappa@Shin-tech.com</u>		
e.	Ownership of facility: ☐ Public ☐ Private	□ Both □ Federal		
f.	Owner of land where treatment facility is or will be: Shintech In	<u>acorporated</u>		
	☐ Mr. ☐ Ms. Full Name (First and Last): <u>Click to enter text.</u>			
	or Organization Name: Shintech Incorporated			
	Mailing Address: <u>5618 Hwy 332 E</u>			
	City: <u>Freeport</u> State: <u>Texas</u>	Zip Code: <u>77541</u>		
	Phone No: <u>979-7054235</u> Fax No: <u>Click to enter text.</u>	Email: <u>VChellappa@Shin-tech.com</u>		
	Note: If not the same as the facility owner, attach a long-term lesix years (In some cases, a lease may not suffice - see instruction)			
g.	Owner of effluent TLAP disposal site (if applicable): Click to ent	ter text.		
	☐ Mr. ☐ Ms. Full Name (First and Last): <u>Click to enter text.</u>			
	or Organization Name: Click to enter text.			
	Mailing Address: Click to enter text.			
	City: Click to enter text. State: Click to enter text.	Zip Code: Click to enter text.		
	Phone No: Click to enter text. Fax No: Click to enter text.	Email: <u>Click to enter text.</u>		
	Note: If not the same as the facility owner, attach a long-term lesix years. Attachment: <u>Click to enter text.</u>	ease agreement in effect for at least		
h.	Owner of sewage sludge disposal site (if applicable):			
	☐ Mr. ☐ Ms. Full Name (First and Last): Click to enter	text.		
	or Organization Name: Click to enter text.			

Mailing Address: Click to enter text.

City: Click to enter text.

State: Click to enter text.

Zip Code: Click to enter text.

Phone No: Click to enter text.

Fax No: Click to enter text.

Email: Click to enter text.

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

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

ite.	m 11. IDPES DISCHAIGE/ILAT DISPOSAI	Information (moducedone) rages or se,	
a .	Is the facility located on or does the treated effl	uent cross Native American Land?	
	☐ Yes ☒ No		
ъ.	Attach an original full size USGS Topographic Map (or an 8.5"×11" reproduced portion for renewal or amendment applications) with all required information. Check the box next to each item below to confirm it has been included on the map.		
	☑ One-mile radius	oxtimes Three-miles downstream information	
	☑ Applicant's property boundaries	□ Treatment facility boundaries	
	□ Labeled point(s) of discharge	☑ Highlighted discharge route(s)	
	☐ Effluent disposal site boundaries	☐ All wastewater ponds	
	☐ Sewage sludge disposal site	\square New and future construction	
	Attachment: C		
c.	Is the location of the sewage sludge disposal si	te in the existing permit accurate?	
	☐ Yes ☒ No or New Permit		
	If no, or a new application, provide an accurate part of this permit application	location description: <u>Sewage sludge disposal is not</u>	
d.	Are the point(s) of discharge in the existing per	mit correct?	
	If no, or a new application, provide an accurate	location description: Click to enter text.	
e.	. Are the discharge route(s) in the existing permit correct?		
	If no, or a new permit, provide an accurate des	cription of the discharge route: <u>Click to enter text.</u>	
f.	City nearest the outfall(s): Freeport		
g.	County in which the outfalls(s) is/are located: <u>Brazoria</u>		
h.	. Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?		
	⊠ Yes □ No		
	If yes, indicate by a check mark if: \boxtimes Authorize		
	provide the approval letter upon receipt. Attac		
	For all applications involving an average daily all counties located within 100 statute miles d	discharge of 5 MGD or more, provide the names of ownstream of the point(s) of discharge: N/A	
i.	For TLAPs, is the location of the effluent dispo	sal site in the existing permit accurate?	
	☐ Yes ☒ No or New Permit		

If no, or a new application, provide an accurate location description: Effluent disposal not part of this permit application j. City nearest the disposal site: N/A k. County in which the disposal site is located: N/A 1. Disposal Site Latitude: N/A Longitude: N/A m. For TLAPs, describe how effluent is/will be routed from the treatment facility to the disposal site: n. For TLAPs, identify the nearest watercourse to the disposal site to which rainfall runoff might flow if not contained: N/A Item 12. MISCELLANEOUS INFORMATION (Instructions, Page 32) Did any person formerly employed by the TCEQ represent your company and get paid for service regarding this application? ☐ Yes ☒ No If yes, list each person: Click to enter text. b. Do you owe any fees to the TCEQ? ☐ Yes ☒ No If yes, provide the account no.: Click to enter text. and total amount due: Click to enter text. c. Do you owe any penalties to the TCEQ? ☐ Yes ☒ No If yes, provide the enforcement order no.: Click to enter text, and amount due: Click to enter text.

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

Permit No: WQ0004818000

Applicant Name: Shintech Incorporated

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

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

Signatory name (typed or printed): Paul Spinks

Signatory title: Site Manager

County, Texas

Signature: Paul Smiles	Date: 6/5/24
/(Use blue ink)	DATI
Subscribed and Sworn to before me by the said _	Tam Spinks
on this	day of, 20_24
My commission expires on the \\	day of October, 2027
Flores Ingino	REBECCA LONGINO
Notary Public	Sky Notary ID # 10294629 Expires October 19, 2025
RVUZD in A	Educa oceans

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

INDUSTRIAL ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

a.

b.

d.

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

attach a landowner map or drawing, with scale, as applicable. Check the box next to each item to confirm it has been provided.	to
I The applicant's property boundaries.	
The facility site boundaries within the applicant's property boundaries.	
The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone.	ıe
The property boundaries of all landowners surrounding the applicant's property. (Note: if the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)	e
The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream.	
The property boundaries of the landowners located on both sides of the discharge route for full stream mile downstream of the point of discharge.	one
The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected b tides.	
The boundaries of the effluent disposal site (e.g., irrigation area or subsurface drainfield site and all evaporation/holding ponds within the applicant's property.)
The property boundaries of all landowners surrounding the applicant's property boundaries where the effluent disposal site is located.	
The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners within one-quarter mile of the applicant's property boundaries where the sewage sludge land application site is located.	90
The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (e.g., sludge surface disposal site or sludge monofil) is located.	
ttachment: R	
heck the box next to the format of the landowners list:	
Readable/Writeable CD □ Four sets of labels	
ttachment: <u>Click to enter text.</u>	
rovide the source of the landowners' names and mailing addresses: Brazos CAD Property Searc	<u>ch</u>
s required by Texas Water Code § 5.115, is any permanent school fund land affected by this pplication?	
] Yes ⊠ No	
yes, provide the location and foreseeable impacts and effects this application has on the land $lick$ to enter text.	l(s):

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

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

Item 3. ORIGINAL PHOTOGRAPHS (Instructions, Page 36)

Provide original ground level photographs. Check the box next to each of the following items to indicate it is included.
\square At least one original photograph of the new or expanded treatment unit location.
□ At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.
\square At least one photograph of the existing/proposed effluent disposal site.
\square A plot plan or map showing the location and direction of each photograph.
Attachment: Click to enter text.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING INDUSTRIAL TPDES WASTEWATER PERMIT APPLICATIONS

TCEQ USE ONLY:				
Application type:RenewalMajor AmendmentMinor AmendmentNew				
County: Segment Number:				
Admin Complete Date:				
Agency Receiving SPIF:				
Texas Historical Commission U.S. Fish and Wildlife				
Texas Parks and Wildlife Department U.S. Army Corps of Engineers				
This form applies to TPDES permit applications only. (Instructions, Page 36)				
The SPIF must be completed as a separate document. The TCEQ will mail a copy of the SPIF to each agency as required by the TCEQ agreement with EPA. If any of the items are not completely addressed				

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

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

The following applies to all applications:

- 1. Permittee Name: Click to enter text.
- 2. Permit No.: WQ000Click to enter text. EPA ID No.: TX0Click to enter text.
- Address of the project (location description that includes street/highway, city/vicinity, and county): <u>Click to enter text.</u>
- 4. Provide the name, address, phone and fax number, and email address of an individual that can be contacted to answer specific questions about the property.

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

Organization Name: Click to enter text. Mailing Address: Click to enter text.

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

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

- 5. List the county in which the facility is located: Click to enter text.
- 6. If the property is publicly owned and the owner is different than the permittee/applicant, please list the owner of the property: Click to enter text.
- 7. Provide a description of the effluent discharge route. The discharge route must follow the flow of effluent from the point of discharge to the nearest major watercourse (from the point of discharge

to a classified segment as defined in 30 TAC Chapter 307). If known, please identify the classified segment number: <u>Click to enter text.</u>

- 8. Please provide a separate 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report.) Attachment: Click to enter text.
- 9. Provide original photographs of any structures 50 years or older on the property. Attachment: <u>Click</u> to enter text.

	The property of the property o
	☐ Proposed access roads, utility lines, construction easements
	\square Visual effects that could damage or detract from a historic property's integrity
	\square Vibration effects during construction or as a result of project design
	\square Additional phases of development that are planned for the future
	\square Sealing caves, fractures, sinkholes, other karst features
	☐ Disturbance of vegetation or wetlands
1	List proposed construction impact (ourface agree to be impacted, double of accounting against of

- 11. List proposed construction impact (surface acres to be impacted, depth of excavation, sealing of caves, or other karst features): <u>Click to enter text.</u>
- 12. Describe existing disturbances, vegetation, and land use: Click to enter text.

10. Does your project involve any of the following? Check all that apply

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

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

WATER QUALITY PERMIT

PAYMENT SUBMITTAL FORM

Use this form to submit the Application Fee, if mailing the payment. (Instructions, Page 36-37)

- Complete items 1 through 5 below.
- Staple the check or money order in the space provided at the bottom of this document.
- Do not mail this form with the application form.
- Do not mail this form to the same address as the application.
- Do not submit a copy of the application with this form as it could cause duplicate permit entries.

Mail this form and the check or money order to:

BY REGULAR U.S. MAIL

BY OVERNIGHT/EXPRESS MAIL

Texas Commission on Environmental Quality Financial Administration Division Cashier's Office, MC-214 P.O. Box 13088 Austin, Texas 78711-3088 Texas Commission on Environmental Quality Financial Administration Division Cashier's Office, MC-214 12100 Park 35 Circle Austin, Texas 78753

Fee Code: WQP Permit No: WQ0004818000

1. Check or Money Order Number: Click to enter text.

Check or Money Order Amount: <u>Click to enter text</u>.

3. Date of Check or Money Order: Click to enter text.

4. Name on Check or Money Order: Click to enter text.

5. APPLICATION INFORMATION

Name of Project or Site: Shintech Freeport Plan

Physical Address of Project or Site: 5618 Hwy 332 E, Freeport, TX. 77541

If the check is for more than one application, attach a list which includes the name of each Project or Site (RE) and Physical Address, exactly as provided on the application. Attachment: <u>Click to enter text.</u>

Staple Check or Money Order in This Space

ATTACHMENT 1

INDIVIDUAL INFORMATION

Item 1. Individual information (Instructions, Page 37)

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

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

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

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

Date of Birth: <u>Click to enter text.</u>
Mailing Address: <u>Click to enter text.</u>

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

Phone No.: <u>Click to enter text.</u>
Fax No.: <u>Click to enter text.</u>

E-mail Address: Click to enter text.

CN: Click to enter text.

Checklist of Common Deficiencies

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

(Requ	Data Form (TCEQ Form No. 10400) uired for all applications types. Must be completed in its entirety and signed. Form may be signed by applicant representative.)							
Correct and Current Industrial Wastewater Permit Application Forms (TCEQ Form Nos. 10055 and 10411. Version dated 5/10/2019 or later.)								
(Origi	Water Quality Permit Payment Submittal Form (Page 14) (Original payment sent to TCEQ Revenue Section. See instructions for mailing address.)							
(Full-s	inute USGS Quadrangle Topographic Map Attached size map if seeking "New" permit. In acceptable for Renewals and Amendments.)							
N/A	☐ Current/Non-Expired, Executed Lease Agreement or Easement Attached							
N/A	☐ Landowners Map (See instructions for landowner requirements.)							
	 Things to Know: All the items shown on the map must be labeled. The applicant's complete property boundaries must be delineated which includes boundaries of contiguous property owned by the applicant. The applicant cannot be its own adjacent landowner. You must identify the landowners immediately adjacent to their property, regardless of how far they are from the actual facility. If the applicant's property is adjacent to a road, creek, or stream, the landowners on the opposite side must be identified. Although the properties are not adjacent to applicant's property boundary, they are considered potentially affected landowners. If the adjacent road is a divided highway as identified on the USGS topographic map, the applicant does not have to identify the landowners on the opposite side of the highway. 							
N/A	☐ Landowners Cross Reference List (See instructions for landowner requirements.)							
N/A	☐ Landowners Labels or CD-RW attached (See instructions for landowner requirements.)							
(If sign	nal signature per 30 TAC § 305.44 - Blue Ink Preferred nature page is not signed by an elected official or principle executive officer, y of signature authority/delegation letter must be attached.)							
Plain I	Language Summary							

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 <u>30 Texas Administrative</u> <u>Code §39.426</u>, **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.

Shintech Incorporated (CN600128425) operates Shintech Freeport Site RN100213198. a PVC manufacturing facility. The facility is located at 5618 Hwy 332 East, in Freeport, Brazoria County, Texas 77541. Shintech requests a Texas Pollutant Discharge Elimination System (TPDES) permit renewal for a 3.2 billion pound per year Polyvinylchloride (PVC) manufacturing facility in Freeport, Texas. The facility is composed of three PVC production facilities, each equipped with its own wastewater treatment system. The wastewater treatment system will treat process and domestic wastewater prior to their discharge off-site via three (3) process outfalls (001, 004, 006). The TPDES permit renewal also includes five (5) stormwater outfalls (002, 003, 005, 007) for off-site discharge of stormwater collected on-site.

Discharges from the facility are expected to contain Total Suspended Solids (TSS), Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Oil and Grease (O&G), Total Chromium, and Total Zinc. Expected discharges of process and domestic wastewater, stormwater, utility wastewater, and steam condensate are treated by *Aerobic biological treatment process*.

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.

Shintech Incorporated (CN600128425) opera el sitio Shintech Freeport RN100213198. una planta de fabricación de PVC. La instalación está ubicada en 5618 Hwy 332 East, en Freeport, Condado de Brazoria, Texas 77541. Shintech solicita una renovación del permiso del Sistema de eliminación de descargas contaminantes de Texas (TPDES) para una instalación de fabricación de cloruro de polivinilo (PVC) de 3,2 mil millones de libras por año en Freeport, Texas. La instalación se compone de tres instalaciones de producción de PVC, cada una equipada con su propio sistema de tratamiento de aguas residuales. El sistema de tratamiento de aguas residuales tratará las aguas residuales domésticas y de proceso antes de su descarga fuera del sitio a través de tres (3) emisarios de proceso (001, 004, 006). La renovación del permiso TPDES también incluye cinco (5) emisarios de aguas pluviales (002, 003, 005, 007) para descarga fuera del sitio de aguas pluviales recolectadas en el sitio.

Se espera que las descargas de la instalación contengan sólidos suspendidos totales (SST), demanda bioquímica de oxígeno (DBO), demanda química de oxígeno (DQO), aceite y grasa (O&G), cromo total y zinc total. Las descargas esperadas de aguas residuales domésticas y de proceso, aguas pluviales, aguas residuales de servicios públicos y condensado de vapor se tratan mediante un *proceso de tratamiento biológico aeróbico*.

INSTRUCTIONS

- 1. Enter the name of applicant in this section. The applicant name should match the name associated with the customer number.
- 2. Enter the Customer Number in this section. Each Individual or Organization is issued a unique 11-digit identification number called a CN (e.g. CN123456789).
- 3. Choose "operates" in this section for existing facility applications or choose "proposes to operate" for new facility applications.
- 4. Enter the name of the facility in this section. The facility name should match the name associated with the regulated entity number.
- 5. Enter the Regulated Entity number in this section. Each site location is issued a unique 11-digit identification number called an RN (e.g. RN123456789).
- 6. Choose the appropriate article (a or an) to complete the sentence.
- 7. Enter a description of the facility in this section. For example: steam electric generating facility, nitrogenous fertilizer manufacturing facility, etc.
- 8. Choose "is" for an existing facility or "will be" for a new facility.
- 9. Enter the location of the facility in this section.
- 10. Enter the City nearest the facility in this section.
- 11. Enter the County nearest the facility in this section.
- 12. Enter the zip code for the facility address in this section.
- 13. Enter a summary of the application request in this section. For example: renewal to discharge 25,000 gallons per day of treated domestic wastewater, new application to discharge process wastewater and stormwater on an intermittent and flow-variable basis, or major amendment to reduce monitoring frequency for pH, etc. If more than one outfall is included in the application, provide applicable information for each individual outfall.

- 14. List all pollutants expected in the discharge from this facility in this section. If applicable, refer to the pollutants from any federal numeric effluent limitations that apply to your facility.
- 15. Enter the discharge types from your facility in this section (e.g., stormwater, process wastewater, once through cooling water, etc.)
- 16. Choose the appropriate verb tense to complete the sentence.
- 17. Enter a description of the wastewater treatment used at your facility. Include a description of each process, starting with initial treatment and finishing with the outfall/point of disposal. Use additional lines for individual discharge types if necessary.

Example

Individual Industrial Wastewater Application

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.

ABC Corporation (CN600000000) operates the Starr Power Station (RN10000000000), a twounit gas fired electric generating facility. Unit 1 has a generating capacity of 393 megawatts (MWs) and Unit 2 has a generating capacity of 528 MWs. The facility is located at 1356 Starr Street, near the City of Austin, Travis County, Texas 78753.

This application is for a renewal to discharge 870,000,000 gallons per day of once through cooling water, auxiliary cooling water, and also authorizes the following waste streams monitored inside the facility (internal outfalls) before it is mixed with the other wastewaters authorized for discharge via main Outfall 001, referred as "previously monitored effluents" (low volume wastewater, metal cleaning waste, and stormwater (from diked oil storage area yards, and storm drains)) via Outfall 001. Low volume waste sources, metal cleaning waste, and stormwater drains on a continuous and flow-variable basis via internal Outfall 101.

The discharge of once through cooling water via Outfall 001 and low volume waste and metal cleaning waste via Outfall 101 from this facility is subject to federal effluent limitation guidelines at 40 CFR Part 423. The pollutants expected from these discharges based on 40 CFR Part 423 are: free available chlorine, total residual chlorine, total suspended solids, oil and grease, total iron, total copper, and pH. Temperature is also expected from these discharges. Additional potential pollutants are included in the Industrial Wastewater Application Technical Report, Worksheet 2.0.

Cooling water and boiler make-up water are supplied by Lake Starr Reservoir. The City of Austin municipal water plant (CN600000000, PWS 00000) supplies the facility's potable water and serves as an alternate source of boiler make-up water. Water from the Lake Starr Reservoir is withdrawn at the intake structure and treated with sodium hypochlorite to prevent biofouling and sodium bromide as a chlorine enhancer to improve efficacy and then passed through condensers and auxiliary equipment on a once-through basis to cool equipment and condense exhaust steam. Low volume wastewater from blowdown of boiler Units 1 and 2 and metal cleaning wastes receive no treatment prior to discharge via Outfall 101. Plant floor and equipment drains and stormwater runoff from diked oil storage areas, yards, and storm drains are routed through an oil and water separator prior to discharge via Outfall 101. Domestic wastewater, blowdown, and backwash water from the service water filter, clarifier, and sand filter are routed to the Starr Creek Domestic Sewage Treatment Plant, TPDES Permit No. WQ0010000001, for treatment and disposal. Metal cleaning waste from equipment cleaning is generally disposed of off-site.

TECHNICAL REPORT 1.0 INDUSTRIAL

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

For additional information or clarification on the requested information, refer to the <u>Instructions for Completing the Industrial Wastewater Permit Application</u> available on the TCEQ website.

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

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

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

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

Shintech Incorporated resins. The facility is treatment plant.	Freeport manufacturing plant divided into three plants with	produces polyvinyl chloride (PVC) each operating its own wastewater
•		

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

The polyvinyl chloride resins manufactured at this facility are produced using a water suspension polymerization process. Wastewater generated from the process is treated and discharged via the outfall or treated and recycled back to the process. This is outlined in the process description and process flow diagrams in Attachments G and H, respectively. Utility wastewater discharges, as defined in the Fact Sheet (boiler blowdown, cooling tower blowdown, non-contact cooling jacket water, etc.), and small quantities of sanitary wastewater generated at the plants also contribute to the wastewater effluent treated and discharged from the plant.

https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES industrial wastewater steps.html

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

Materials List

Raw Materials	Intermediate Products	Final Products
Vinyl Chloride Monomer (75-01-4)		Polyvinyl Chloride (PVC) Resins
Water (7732-18-5)		
Polyvinyl Alcohol (25213-24-5)		
Organic Peroxide Catalysts (26748-41-4)		
Odorless Mineral Spirits (64741-65-7, 64742-48-9)		
Z Series (Non-Scaling Agent)		
Sodium Chloride (7647-14-5)		
Ethanol (64-17-5)		

Attachment: E

- d. Attach a facility map (drawn to scale) with the following information:
 - Production areas, maintenance areas, materials-handling areas, waste-disposal areas, and water intake structures.

	•					e WWTP including the location of wastewater collection sumps, campling points, if significantly different from outfall locations.		
	At	tachmen	t: F			*		
e. Is this a new permit application for an existing facility?						or an existing facility?		
		Yes	\boxtimes	No				
	If y	v es , provid	le bac	kground o	liscus	sion: N/A		
f.	Is/	will the tre	eatme	nt facility	/dispo	osal site be located above the 100-year frequency flood level.		
	\boxtimes	Yes		No				
		List source(s) used to determine 100-year frequency flood plain: FEMA Map 48039C0780 I effective 11/17/1993						
	If no , provide the elevation of the 100-year frequency flood plain and describe what protective measures are used/proposed to prevent flooding (including tail water and rainfall run-on controls) of the treatment facility and disposal area: N/A							
	Att	tachmen	t: <u>N/A</u>	<u>\</u>				
g.	. For new or major amendment permit applications, will any construction operations result in a discharge of fill material into a water in the state?							
		Yes		No	\boxtimes	N/A (renewal only)		
h.	If y	es to Item	1 1.g, l	as the ap	plicar	nt applied for a USACE CWA Chapter 404 Dredge and Fill permit?		
		Yes		No				
	If y	es, provid	le the	permit nu	ımber	:: <u>N/A</u>		
	If n	o, provid	e an a	pproxima	te dat	e of application submittal to the USACE: <u>N/A</u>		

2. TREATMENT SYSTEM (Instructions, Page 40)

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

Each of the three onsite wastewater treatment plants utilizes the same treatment process: biological treatment with aeration, clarification/settling, and filtration. Treated wastewater is discharged via Process Wastewater Outfalls 001, 004, and 006. A detailed description of the wastewater treatment process is provided in the Process Description (Attachment G)

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

Attachment: H

3. IMPOUNDMENTS (Instructions, Pages 40-42)

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

⊠ Yes □ No

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

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

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

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

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

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

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

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

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

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

Impoundment Information

Parameter	Pond #1	Pond #2	Pond #3	Pond #5
Use Designation: (T) (D) (C) or (E)	С	С	С	С
Associated Outfall Number	N/A	005	007	008
Liner Type (C) (I) (S) or (A)	С	I	I	I
Alt. Liner Attachment Reference	N/A	N/A	N/A	N/A
Leak Detection System, Y/N	N	N	N	N
Groundwater Monitoring Wells, Y/N	N	N	N	N
Groundwater Monitoring Data Attachment	N/A	N/A	N/A	N/A
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	Y	Y	Y	Y
Length (ft)	225	270	120	330
Width (ft)	80	322	255	440
Max Depth From Water Surface (ft), Not Including Freeboard	10	10	10	10
Freeboard (ft)	1-2	1-2	1-2	1-2
Surface Area (acres)	0.49	0.46	0.73	3.51
Storage Capacity (gallons)	1,346,400	6,503,112	2,288,880	10,860,960
40 CFR Part 257, Subpart D, Y/N	N	N	N	N
Date of Construction	1974	1983	1989	1974

Impoundment Information

Parameter	Pond #	Pond #	Pond #	Pond #	
Use Designation: (T) (D) (C) or (E)					
Associated Outfall Number					
Liner Type (C) (I) (S) or (A)					
Alt. Liner Attachment Reference					
Leak Detection System, Y/N					
Groundwater Monitoring Wells, Y/N					
Groundwater Monitoring Data Attachment					
Pond Bottom Located Above The Seasonal High-Water Table, Y/N					
Length (ft)					
Width (ft)					
Max Depth From Water Surface (ft), not including freeboard					
Freeboard (ft)					
Surface Area (acres)					
Storage Capacity (gallons)					
40 CFR Part 257, Subpart D, Y/N					
Date of Construction					

Attachment: N/A

The following information (Items 3.b - 3.e) is required only for new or proposed impoundments. b. For new or proposed impoundments, attach any available information on the following items. If attached, check yes in the appropriate box. Otherwise, check no or not yet designed. i. Liner data Not yet designed No П Yes ii. Leak detection system or groundwater monitoring data Not yet designed Yes No iii. Groundwater impacts Not yet designed Yes П NOTE: Item b.iii is required if the bottom of the pond is not above the seasonal high-water table in the shallowest water-bearing zone. Attachment: N/A For TLAP applications: Items 3.c - 3.e are not required, continue to Item 4. c. Attach a USGS map or a color copy of original quality and scale which accurately locates and identifies all known water supply wells and monitor wells within 1/2-mile of the impoundments. Attachment: N/A d. Attach copies of State Water Well Reports (e.g., driller's logs, completion data, etc.), and data on depths to groundwater for all known water supply wells including a description of how the depths to groundwater were obtained. Attachment: N/A e. Attach information pertaining to the groundwater, soils, geology, pond liner, etc. used to assess the potential for migration of wastes from the impoundments or the potential for contamination of groundwater or surface water. Attachment: N/A

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

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

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

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

Outfall Latitude and Longitude

Outfall Number	Latitude-decimal degrees	Longitude-decimal degrees
001	28	-95
002	28	-95
003	28	-95
004	28	-95
005	28	-95
006	28	-95
007	28	-95
008	28	-95

Outfall Location Description

Outfall Number	Location Description
001	Outlet of final basin in the PL-1 PVC Facility (Plant-1)
002	Outlet of South Ditch Sump 2 in the PL-1 PVC Facility (Plant-1)
003	Outlet of South Ditch Sump 1 in the PL-1 PVC Facility (Plant-1)
004	Outlet of final basin in the PL-2 PVC Facility (Plant-2)
005	Outfall to North Ditch from PL-2 PVC Facility (Plant-2)
006	Outlet of final basin in the PL-3 PVC Facility (Plant-3)
007	Outfall to North Ditch from PL-3 PVC Facility (Plant-3)
008	Outfall to North Ditch from Plant Common Area

Description of Sampling Points (if different from Outfall location)

Outfall Number	Description of Sampling Point		
N/A		N/A	
	+		

Outfall Flow Information - Permitted and Proposed

Outfall Number	Permitted Daily Avg Flow (MGD)	Permitted Daily Max Flow (MGD)	Proposed Daily Avg Flow (MGD)	Proposed Daily Max Flow (MGD)	Anticipated Discharge Date (mm/dd/yy)
001	1.11	1.44	1.11	1.44	Permitted
002	None	None	None	None	Permitted
003	None	None	None	None	Permitted
004	1.10	1.73	1.10	1.73	Permitted
005	None	None	None	None	Permitted
006	1.06	2.50	1.06	2.50	Permitted
007	None	None	None	None	Permitted
008	None	None	None	None	Permitted

Outfall Discharge – Method and Measurement

Outfall Number	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used
001	Y	N	Totalizer
002	N	Y	Estimated
003	N	Y	Estimated
004	Y	N	Totalizer
005	Y	N	Estimated
006	Y	N	Totalizer
007	Y	N	Estimated
008	Y	N	Estimated

Outfall Discharge - Flow Characteristics

Outfall Number	Intermittent Discharge? Y/N	Continuous Discharge? Y/N	Seasonal Discharge? Y/N	Discharge Duration (hrs/day)	Discharge Duration (days/mo)	Discharge Duration (mo/yr)
001	N	N	Y	24	30-31	12
002	Y	N	N	Varies	Varies	Varies
003	Y	N	N	Varies	Varies	Varies
004	N	N	Y	24	30-31	12
005	Y	N	N	Varies	Varies	12
006	N	N	Y	24	30-31	12
007	Y	N	N	Varies	Varies	Varies
008	Y	N	N	Varies	Varies	Varies

Wastestream Contributions

Outfall No.: 001

Contributing Wastestreams	Volume (MGD)	% of Total Flow
OCPSF Process Wastewater	0.446	65
Utility Wastewaters (Cooling Tower Blowdown, Incinerator Blowdown and Quench, Boiler Blowdown, De-ionized Water Unit Blowdown, Rejected Reverse Osmosis Water, Reactor Cooling Jacket Blowdown, and Water Softener Unit Blowdown)	0.231	33
Sanitary Wastewater	0.014	2
Storm Water	Variable	De Minimis

Outfall No.: 002

Contributing Wastestreams	Volume (MGD)	% of Total Flow	
Storm Water	Variable	N/A	
Steam Condensate	De Minimis	N/A	

Outfall No.: 003

Contributing Wastestreams	Volume (MGD)	% of Total Flow N/A	
Storm Water	Variable		
Steam Condensate	De Minimis	N/A	

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

a.	Does the facility use/propose to use any cooling towers which discharge blowdown or other wastestreams to the outfall(s)?					
	⊠ Yes □ No			9		
NOTE: If the facility uses or plans to use cooling towers, Item 12 is required.						
b.	Does the facility use or plan to use any boilers that discharge blowdown or other wastestreams to the outfall(s)?					
	⊠ Yes □ No					
c.	c. Does or will the facility discharge once-through cooling water to the outfall(s)?					
	□ Yes ⊠ No	(
	NOTE: If the facility us	ses or plans to use once-thro	ough cooling water, Item 12	is required.		
d.	If yes to Items 5.a, 5.b, additive.	or 5.c, attach the SDS with	the following information t	for each chemical		
e.	 Manufacturers Product Identification Number Product use (e.g., biocide, fungicide, corrosion inhibitor, etc.) Chemical composition including CASRN for each ingredient Classify product as non-persistent, persistent, or bioaccumulative Product or active ingredient half-life Frequency of product use (e.g., 2 hours/day once every two weeks) Product toxicity data specific to fish and aquatic invertebrate organisms Concentration of whole product or active ingredient, as appropriate, in wastestream. Attach a summary of this information in addition to the submittal of the SDS for each specific wastestream and the associated chemical additives and specify which outfalls are affected. Attachment: J Cooling Towers and Boilers If yes to either Item 5.a or 5.b, complete the following table. 					
	Type of Unit	Number of Units	Dly Avg Blowdown (gallons/day)	Dly Max Blowdown (gallons/day)		
	Cooling Towers	3	150,000	225,000		
	Boilers	9	64,800	72,000		
as ⊠	e there any existing/pro defined at <i>40 CFR § 122</i> Yes □ No	pposed outfalls which discharge 2.26(b)(14), commingled with the industrial processes and according to the comming of the comm	arge stormwater associated th any other wastestream? extivities that occur outdoors	with industrial activities, s or in some manner which		
		at the second also the	stammustan Attachment	· K		

may result in exposure of the activities or materials to stormwater: Attachment: K

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

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

a.	and domestic sewage sludge sted to do so.					
	☐ Domestic sewage is routed (i.e., connected to or transported to) to a WWTP permitted to receive domestic sewage for treatment, disposal, or both. Complete Item 7.b .					
	☐ Domestic sewage disposed of by an on-site septic tank and drain ☐ Domestic and industrial treatment sludge ARE commingled	afield system. Complete Item 7.b.				
	☐ Industrial wastewater and domestic sewage are treated separate	ly, and the respective sludge IS NOT				
	commingled prior to sludge use or disposal. Complete World	ksheet 5.0.				
	☐ Facility is a POTW. Complete Worksheet 5.0.					
	☐ Domestic sewage is not generated on-site.					
	☐ Other (e.g., portable toilets), specify and Complete Item 7.b :					
b.	Provide the name and TCEQ, NPDES, or TPDES Permit No. of the receives the domestic sewage/septage. If hauled by motorized vehi Registration No. of the hauler.					
	Domestic Sewage Plant/Hauler Name					
	Plant/Hauler Name	Permit/Registration No.				
	N/A					
8. a.	. IMPROVEMENTS OR COMPLIANCE/ENFO REQUIREMENTS (Instructions, Page 45) Is the permittee currently required to meet any implementation so					
	enforcement?	•				
	□ Yes ⊠ No					
b.	Has the permittee completed or planned for any improvements or	construction projects?				
	·□ Yes ⊠ No					
c.	If yes to either 8.a or 8.b, provide a brief summary of the requirer	ments and a status update:				
9.	. TOXICITY TESTING (Instructions, Page 45)					
	ave any biological tests for acute or chronic toxicity been made on an ater in relation to the discharge within the last three years?	ny of the discharges or on a receiving				
	Yes 🖾 No					
If	yes, identify the tests and describe their purposes:					
Ad	lditionally, attach a copy of all tests performed which have not been	n submitted to the TCEQ or EPA.				

Attachment: N/A

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

		700E 71E			tment at the facility disposal on-site		
a.	Does or will the facility receive wastes from off-site sources for treatment at the facility, disposal on-site via land application, or discharge via a permitted outfall?						
	\boxtimes	Yes No					
If yes , provide responses to Items 10.b through 10.d below.							
	If no , proceed to Item 11.						
b.		attach the following information to the application:					
	•	Identify the sources of wastes received (including the legal name and addresses of the generators).					
	Att	achment	t: <u>L</u>				
c. Is or will wastewater from another TCEQ, NPDES, or TPDES permitted facility commingled facility's wastewater after final treatment and prior to discharge via the final outfall/point or				nitted facility commingled with this a the final outfall/point of disposal?			
If yes , provide the name, address, and TCEQ, NPDES, or TPDES permit number of the contribute facility and a copy of any agreements or contracts relating to this activity.					permit number of the contributing activity.		
	At	tachmen	t: <u>N/</u>	7			
d.	Is t	this facility ve an appr	y a PO oved j	TW that accepts/will accept process wastewate pretreatment program under the NPDES/TPDE	r from any SIU and has/is required to ES program?		
		Yes	\boxtimes	No			
	If						
1	ι. Ι	RADIO.	ACT	IVE MATERIALS (Instructions,	Pages 46)		
a.	Ar	e/will radi	oactiv	re materials be mined, used, stored, or processe	d at this facility?		
		Yes	\boxtimes	No			
	If yes , use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L.						
	Ra	adioactive	Mate	rials Mined, Used, Stored, or Processed			
	R	Radioactiv	e Mat	erial	Concentration (pCi/L)		
	N	I/A					
	_						

b.	ma	Does the applicant or anyone at the facility have any knowledge or reason to believe that radioactive materials may be present in the discharge, including naturally occurring radioactive materials in the source waters or on the facility property?								
		Yes	\boxtimes	No						
	ma	If yes , use the following table to provide the results of one analysis of the effluent for all radioactive materials that may be present. Provide results in pCi/L. Do not include information provided in response to Item 11.a.								
	Ra	dioactive	Mate	rials Pres	ent in the Discharge					
	R	adioactiv	e Mat	erial			Concentration	(pCi/L)		
	N	/A								
	_									
	-									
	\vdash									
	L									
12	. (COOLI	NG I	NATER	(Instructions, Pa	ges 46-	47)			
a.	Do	Does the facility use or propose to use water for cooling purposes?								
	\boxtimes	Yes		No						
	Ifı	10, stop h	ere. If	yes, comp	elete Items 12.b thru 12.f.					
h	Cooling water is/will be obtained from a groundwater source (e.g., on-site well).									
υ.	П	Yes	I 15, ···	No	inca irom a groundwater.	ouree (e.g	,, 011 5100 1101.			
	7.11			f no , conti	nue					
					nuc.					
c.	Co	oling Wat	er Sup	plier						
	i.	Provide t	he na	me of the o	owner(s) and operator(s) f	or the CWI	S that supplies or	will supply water		
					ructure(s) Owner(s) and	l Operator	(s)			
		CWIS II			Brazos River Water					
		Owner			Dow Chemical Company					
		Operato	r		Dow Chemical Company					
	ii.	Cooling v	vater i	s/will be o	btained from a Public Wa	ter Supplie	er (PWS)			
		□ Yes		⊠ No		ioi cappii	. ()			
					ovide the PWS Registration	on No. and	stop here: PWS I	No. N/A		
					-					
	iii.	_		15 	btained from a reclaimed	water sour	ce?			
		□ Yes		⊠ No			<u> </u>	_		
		If no , cor	itinue	. If yes , pr	ovide the Reuse Authoriz	ation No. a	nd stop here: <u>N/A</u>	$ar{f}$		

iv.	Cooling water is/will be obtained from an Independent Supplier
	⊠ Yes □ No
	If yes , provide the actual intake flow of the Independent Supplier's CWIS that is/will be used to provide water for cooling purposes to the facility and proceed: <u>2.25 MGD</u>
	If no , proceed to Item 12.d.
316	6(b) General Criteria
i.	The CWIS(s) used to provide water for cooling purposes to the facility has or will have a cumulative design intake flow of 2 MGD or greater.
	⊠ Yes □ No
ii.	At least 25% of the total water withdrawn by the CWIS is/will be used at the facility exclusively for cooling purposes on an annual average basis.
	□ Yes ⊠ No
iii.	The CWIS(s) withdraw(s)/propose(s) to withdraw water for cooling purposes from surface waters that meet the definition of Waters of the United States in 40 CFR § 122.2.
	⊠ Yes □ No
	If no , provide an explanation of how the waterbody does not meet the definition of Waters of the United States in 40 CFR § 122.2:
If y	yes to all three questions in Item 12.d, the facility meets the minimum criteria to be subject to the ll requirements of Section 316(b) of the CWA. Proceed to Item 12.f .
sul	no to any of the questions in Item 12.d, the facility does not meet the minimum criteria to be bject to the full requirements of Section 316(b) of the CWA; however, a determination is required sed upon BPJ. Proceed to Item 12.e .
	ne facility does not meet the minimum requirements to be subject to the fill requirements of Section 6(b) and uses/proposes to use cooling towers.
\boxtimes	Yes □ No
	yes , stop here. If no , complete Worksheet 11.0, Items 1(a), 1(b)(i-iii) and (vi), 2(b)(i), and 3(a) to ow for a determination based upon BPJ.
Oi	l and Gas Exploration and Production
i.	The facility is subject to requirements at 40 CFR Part 435, Subparts A or D.
	□ Yes □ No
	If yes , continue. If no , skip to Item 12.g.
ii.	The facility is an existing facility as defined at 40 CFR § 125.92(k) or a new unit at an existing facility as defined at 40 CFR § 125.92(u).
	□ Yes □ No
	If yes , complete Worksheet 11.0, Items 1(a), 1(b)(i-iii) and (vi), 2(b)(i), and 3(a) to allow for a determination based upon BPJ. If no , skip to Item 12.g.iii.

d.

e.

f.

g.	Co	mpliance	Phase and Track Selection
	i.	Phase I	New facility subject to 40 CFR Part 125, Subpart I
		□ Ye	□ No
			eck the box next to the facility's compliance track selection, attach the requested ion, and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.
			Track I – AIF greater than 2 MGD, but less than 10 MGD Attach information required by 40 CFR §§ 125.86(b)(2)-(4).
			Track I – AIF greater than 10 MGD Attach information required by 40 CFR § 125.86(b).
			Track II Attach information required by 40 CFR § 125.86(c).
		Atta	chment:
	ii.		– Existing facility subject to 40 CFR Part 125, Subpart J
		□ Ye	□ No
		If yes,	mplete Worksheets 11.0 through 11.3, as applicable.
	iii.	Phase I	– New facility subject to 40 CFR Part 125, Subpart N
		□ Ye	□ No
		If yes , o	eck the box next to the facility's compliance track selection and provide the requested ion.
			 Track I – Fixed facility Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0 Items 2 and 3, and Worksheet 11.2.
			 Track I – Not a fixed facility Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0 Item 2 (except the CWIS latitude and longitude under Item 2.a).
			Track II – Fixed facility • Attach information required by 40 CFR § 125.136(c) and complete Worksheet 11.0, Items 2 and 3.
		A +++ -	hmant.

NOTE: Item 13 is required only for existing permitted facilities.

13. PERMIT CHANGE REQUESTS (Instructions, Pages 49-50)

a.	Is the facility requesting a major amendment of an existing permit?
	⊠ Yes □ No
	If yes , list each request individually and provide the following information: 1) detailed information regarding the scope of each request and 2) a justification for each request. Attach any supplemental information or additional data to support each request.
	1.) Calibration of Flow Measuring Devices
	Under Item 5 of the Monitoring and Reporting Section of our TPDES permit, we are required to calibrate flow measurement devices at least annually unless authorized by the Executive Director for a longer period. We would like to request that the calibration period be changed to "at least every three years." We are making this request because manual flow calibration requires the Wastewater Treatment System to be taken offline during the calibration test and results in significant disruption to our daily wastewater treatment operations. These disruptions would be minimized if the flow calibration test(s) were performed in conjunction with planned plant outages which are performed every three (3) years for each plant (1,2, and 3). During outages, the wastewater treatment system is taken offline for plant maintenance.
b.	Is the facility requesting any minor amendments to the permit?
	□ Yes ⊠ No
	If yes, list and discuss the requested changes.
c.	Is the facility requesting any minor modifications to the permit?
	□ Yes ⊠ No
	If yes, list and discuss the requested changes.

WORKSHEET 1.0 EPA CATEGORICAL EFFLUENT GUIDELINES

This worksheet **is required** for all applications for TPDES permits for discharges of wastewaters subject to EPA categorical effluent limitation guidelines (ELGs).

1. CATEGORICAL INDUSTRIES (Instructions, Pages 50-52) Is this facility subject to any of the 40 CFR categorical ELGs outlined on page 53 of the instructions? ☑ Yes ☐ No If no, this worksheet is not required. If yes, provide the appropriate information in the table below. 40 CFR Effluent Guidelines Industry Organic Chemicals, Plastics, and Synthetic Fibers 414

			and the second section of the section of t
2. PRODUCTION	PROCESS D	ATA (Instruction	ne Page 54)

NOTE: For all TPDES permit applications requesting individual permit coverage for discharges of oil and gas exploration and production wastewater (discharges into or adjacent to water in the state, falling under the Oil and Gas Extraction Effluent Guidelines – 40 CFR Part 435), see Worksheet 12.0, Item 2 instead.

a. Production Data

Provide the appropriate data for effluent guidelines with production-based effluent limitations.

Production Data

Subcategory	Actual Quantity/Day	Design Quantity/Day	Units
N/A			
	<u> </u>		
	<u> </u>		
		1	

b. Organic Chemicals, Plastics, and Synthetic Fibers Manufacturing Data (40 CFR Part 414)

Provide each applicable subpart and the percent of total production. Provide data for metal-bearing and cyanide-bearing wastestreams, as required by 40 CFR Part 414, Appendices A and B.

Percentages of Total Production

Percent of Total Production	Appendix A and B - Metal	Appendix A – Cyanide
100%	None	None
	Production	Production Metal

c.	Refineries	(40	CFR	Part	419))
----	------------	-----	------------	------	------	---

Provide the applicable subcategory and	l a	brief	justification.
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NT/A	
N/A	

3. PROCESS/NON-PROCESS WASTEWATER FLOWS (Instructions, Page 54)

Provide a breakdown of wastewater flow(s) generated by the facility, including both process and nonprocess wastewater flow(s). Specify which wastewater flows are to be authorized for discharge under this permit and the disposal practices for wastewater flows, excluding domestic, which are not to be authorized for discharge under this permit.

Outfall 1 - 65% Pro	cess wastewater subject	to categorical standards.
Outfall 4 - 74% Pro	ocess wastewater subject	to categorical standards.

Outfall 6 – 60% Process wastewater subject to categorical standards.

Outfalls 2, 3, 5, 7, and 8 discharge only stormwater with de minimis quantities of steam condensate.

Note: The majority of OCPSF wastewater is recycled in each plant. If the recycle equipment malfunctions or wastewater must otherwise be sent to the wastewater treatment system (e.g. maintenance) rather than be recycled, the entire OCPSF flow at the Plant must be discharged via its respective process outfall.

4. NEW SOURCE DETERMINATION (Instructions, Page 54)

Provide a list of all wastewater-generating processes subject to EPA categorical ELGs, identify the appropriate guideline Part and Subpart, and provide the date the process/construction commenced.

Wastewater-generating Processes Subject to Effluent Guidelines

Process	EPA Guideline: Part	EPA Guideline: Subpart	Date Process/ Construction Commenced
Thermoplastic Resins	414	D	Plant 1 – 1974, Plant 2 – 1980, Plant 3 - 1990

WORKSHEET 2.0 POLLUTANT ANALYSES REQUIREMENTS

Worksheet 2.0 **is required** for all applications submitted for a TPDES permit. Worksheet 2.0 is not required for applications for a permit to dispose of all wastewater by land disposal or for discharges solely of stormwater associated with industrial activities.

1. LABORATORY ACCREDITATION (Instructions, Page 56)

Effective July 1, 2008, all laboratory tests performed must meet the requirements of *30 TAC Chapter 25*, Environmental Testing Laboratory Accreditation and Certification with the following general exemptions:

- a. The laboratory is an in-house laboratory and is:
 - i. periodically inspected by the TCEQ; or
 - ii. located in another state and is accredited or inspected by that state; or
 - iii. performing work for another company with a unit located in the same site; or
 - iv. performing pro bono work for a governmental agency or charitable organization.
- b. The laboratory is accredited under federal law.
- c. The data are needed for emergency-response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.
- d. The laboratory supplies data for which the TCEQ does not offer accreditation.

Review 30 TAC Chapter 25 for specific requirements. The following certification statement shall be signed and submitted with every application. See Instructions, Page 34, for a list of approved signatories.

I, <u>Paul Spinks</u>, certify that all laboratory tests submitted with this application meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

(Signature)

2. GENERAL TESTING REQUIREMENTS (Instructions, Pages 56-58)

- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): 2/14/2024-3/7/2024
- b. \boxtimes Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Read the general testing requirements in the instructions for important information about sampling, test methods, and MALs. If a contact laboratory was used, attach a list which includes the name, contact information, and pollutants analyzed for each laboratory/firm. **Attachment:** M

3. SPECIFIC TESTING REQUIREMENTS (Instructions, Pages 58-69)

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

TABLE 1 and TABLE 2 (Instructions, Page 58)

Completion of Tables 1 and 2 is required for all external outfalls for all TPDES permit applications.

Table 1 for Outfall No.: 001

Samples are (check one): ☑ Composite ☐ Grab

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
BOD (5-day)	13	2	2	2
CBOD (5-day)	5.0	1.0	1.0	1.0
Chemical oxygen demand	59	40	38	39.5
Total organic carbon	10.8	8.3	7.4	8.3
Dissolved oxygen	7.3	6.9	8.3	8.2
Ammonia nitrogen	0.72	0.125	0.125	0.125
Total suspended solids	5.8	2.5	2.5	2.5
Nitrate nitrogen	1.54	0.64	3.62	0.79
Total organic nitrogen	1.37	1.63	1.43	1.21
Total phosphorus	0.66	0.55	0.53	0.47
Oil and grease	<5.0	<5.0	<5.0	<5.0
Total residual chlorine	1.28	1.12	0.88	0.71
Total dissolved solids	2,770	3,220	4,150	4,620
Sulfate	1,500	1,840	2,260	2,750
Chloride	298	233	273	274
Fluoride	<0.5	<0.5	<0.5	<0.5
Total alkalinity (mg/L as CaCO3)	30.0	34.0	54.0	46.0
Temperature (°F)	86.4	75-2	74.5	82.2
pH (standard units)	7.0	6.6	7.0	7.1

Table 2 for Outfall No.: 001

Samples are (check one): ☐ Composites ☐ Grabs

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (μg/L)
Aluminum, total	142.0	79.4	137.0	84.4	2.5
Antimony, total	0.7	0.9	1.0	0.9	5
Arsenic, total	4.5	3.8	3.6	4.5	0.5
Barium, total	93.7	78.7	102.0	101.0	3
Beryllium, total	<0.4	<0.4	<0.4	<0.4	0.5
Cadmium, total	<0.4	<0.4	<0.4	<0.4	1
Chromium, total	6.1	6.8	7.5	9.5	3
Chromium, hexavalent	<4.7	<4.7	<4.7	<4.7	3
Chromium, trivalent	6.1	6.8	7.5	9.5	N/A
Copper, total	5.9	6.7	6.0	4.2	2
Cyanide, available	<9.0	<9.0	<9.0	<9.0	2/10
Lead, total	<0.4	<0.4	<0.4	<0.4	0.5
Mercury, total	0.00192	0.00194	0.00247	0.00290	0.005/0.0005
Nickel, total	11.4	6.3	8.1	9.2	2
Selenium, total	<3.2	<3.2	<3.2	<3.2	5
Silver, total	<0.4	<0.4	<0.4	<0.4	0.5

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (μg/L)
Thallium, total	<0.4	<0.4	<0.4	<0.4	0.5
Zinc, total	265.0	127.0	149.0	140.0	5.0

TABLE 3 (Instructions, Page 58)

Completion of Table 3 is required for all external outfalls which discharge process wastewater.

Partial completion of Table 3 **is required** for all **external outfalls** which discharge non-process wastewater and stormwater associated with industrial activities commingled with other wastestreams (see instructions for additional guidance).

Table 3 for Outfall No.: <u>001</u>

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)*
Acrylonitrile	<43.0	<43.0	<43.0	<43.0	50
Anthracene	<0.35	<0.35	<0.35	<0.35	10
Benzene	<1.0	<1.0	<1.0	<1.0	10
Benzidine	<0.66	<0.67	<0.66	<0.66	50
Benzo(a)anthracene	<0.38	<0.38	<0.38	<0.38	5
Benzo(a)pyrene	<0.85	<0.86	<0.85	<0.85	5
Bis(2-chloroethyl)ether	<0.72	<0.73	<0.72	<0.72	10
Bis(2-ethylhexyl)phthalate	<2.2	<2.2	<2.2	<2.2	
Bromodichloromethane [Dichlorobromomethane]	10.0	28.0	24.0	25.0	10
Bromoform	<2.0	<2.0	<2.0	<2.0	10
Carbon tetrachloride	<2.0	<2.0	<2.0	<2.0	2
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	10
Chlorodibromomethane [Dibromochloromethane]	2.0	9.0	12.0	14.0	10
Chloroform	23.0	55.0	31.0	22.0	10
Chrysene	<0.57	<0.58	<0.57	<0.57	5
m-Cresol [3-Methylphenol]	<1.3	<1.3	<1.3	<1.3	10
o-Cresol [2-Methylphenol]	<1.0	<1.0	<1.0	<1.0	10
p-Cresol [4-Methylphenol]	<1.3	<1.3	<1.3	<1.3	10
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0	10
m-Dichlorobenzene [1,3-Dichlorobenzene]	<0.53	<0.54	<0.53	<0.53	10
o-Dichlorobenzene [1,2-Dichlorobenzene]	<0.41	<0.41	<0.41	<0.41	10
o-Dichlorobenzene 1,4-Dichlorobenzene]	<0.25	<0.25	<0.25	<0.25	10
3,3'-Dichlorobenzidine	<0.88	<0.89	<0.88	<0.88	5
,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	10
,1-Dichloroethene 1,1-Dichloroethylene]	<1.0	<1.0	<1.0	<1.0	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)*
Dichloromethane [Methylene chloride]	<1.0	<1.0	<1.0	<1.0	20
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	10
1,3-Dichloropropene [1,3-Dichloropropylene]	<1.0	<1.0	<1.0	<1.0	10
2,4-Dimethylphenol	<0.53	<0.54	<0.53	<0.53	10
Di-n-Butyl phthalate	<1.2	<1.2	<1.2	<1.2	10
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	10
Fluoride	<5.0	<5.0	<5.0	<5.0	500
Hexachlorobenzene	<0.69	<0.70	<0.69	<0.69	5
Hexachlorobutadiene	<0.41	<0.41	<0.41	<0.41	10
Hexachlorocyclopentadiene	<0.35	<0.35	<0.35	<0.35	10
Hexachloroethane	<0.47	<0.47	<0.47	<0.47	20
Methyl ethyl ketone	<1.0	<1.0	<1.0	<1.0	50
Nitrobenzene	<0.91	<0.92	<0.91	<0.91	10
N-Nitrosodiethylamine	<5.0	<5.1	<5.1	<5.1	20
N-Nitroso-di-n-butylamine	<5.0	<5.1	<5.0	<5.0	20
Nonylphenol	<5.0	<5.05	<5.0	<5.0	333
Pentachlorobenzene	<3.0	<3.0	<3.0	<3.0	20
Pentachlorophenol	<0.5	<0.51	<0.5	<0.5	5
Phenanthrene	<0.44	<0.44	<0.44	<0.44	10
Polychlorinated biphenyls (PCBs) (**)	<0.03	<0.03	<0.03	<0.03	0.2
Pyridine	<0.35	<0.35	<0.35	<0.35	20
1,2,4,5-Tetrachlorobenzene	<5.0	<5.1	<5.0	<5.0	20
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	10
Tetrachloroethene [Tetrachloroethylene]	<1.0	<1.0	<1.0	<1.0	10
Toluene	<1.0	<1.0	<1.0	<1.0	10
1,1,1-Trichloroethane	<1.0	<1.0	<1.0	<1.0	10
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	10
Trichloroethene [Trichloroethylene]	<1.0	<1.0	<1.0	<1.0	10
2,4,5-Trichlorophenol	<0.85	<0.86	<0.85	<0.85	50
TTHM (Total trihalomethanes)	13.0	38.0	39.0	40.0	10
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	10

 ^(*) Indicate units if different from μg/L.
 (**) Total of detects for PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, and PCB-1016. If all non-detects, enter the highest non-detect preceded by a "<".

TABLE 4 (Instructions, Pages 58-59)

Partial completion of Table 4 is required for each external outfall based on the conditions below.

a. Tributyltir	1.	Tribu	ityltin
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 $\boldsymbol{b}.$

c.

Wa	astew	ater fro	om th	e types of or	nmercial facility which currently or proposes to directly dispose of perations listed below or a domestic facility which currently or proposes types of industrial/commercial operations listed below?
	Ye	es	\boxtimes	No	
If tes	yes , o	check t results	he bo in Ta	x next to eac ble 4 below	ch of the following criteria which apply and provide the appropriate (check all that apply).
	M	anufac	turer	and formu	lators of tributyltin or related compounds.
	Pa	inting	of shi	ps, boats an	d marine structures.
	Sh	ip and	boat	building and	d repairing.
	Sh	ip and	boat	cleaning, sa	lvage, wrecking and scaling.
	O_{I}	peratio	n and	maintenand	ce of marine cargo handling facilities and marinas.
	Fa	cilities	enga	ged in wood	preserving.
	Ar th	ny othe ere is a	r indu iny re	istrial/comr ason to belie	nercial facility for which tributyltin is known to be present, or for which eve that tributyltin may be present in the effluent.
Eı	ıtero	cocci	(disc	harge to s	altwater)
i.	This Ente	facilit erococo	y disc ci bact	harges/prop eria are exp	ooses to discharge directly into saltwater receiving waters and ected to be present in the discharge based on facility processes.
		Yes	\triangleright	No	
ii.	Don	iestic v	vastev	vater is/will	be discharged.
	\boxtimes	Yes			
If y	es to	eithe	er que	stion, provi	de the appropriate testing results in Table 4 below.
E.	coli	(disch	arge	to freshw	ater)
i.	This bact	facility eria ar	y discl e expe	narges/prop cted to be p	oses to discharge directly into freshwater receiving waters and <i>E. coli</i> resent in the discharge based on facility processes.
		Yes	\boxtimes	No	
ii.	Don	estic w	vastev	ater is/will	be discharged.
	\boxtimes	Yes		No	
If y	es to	eithe	r que	stion, provi	de the appropriate testing results in Table 4 below.
le 2	t for	Outfal	l No.:	<u>001</u>	

Table 4	for	Outfall	No.:	001

samples are (check one):	Composites	□ Grabs			
Pollutant	Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin (μg/L)	N/A	N/A	N/A	N/A	0.010
Enterococci (cfu or MPN/100 mL)					N/A
E. coli (cfu or MPN/100 mL)	<2.0	<2.0	<2.0	<2.0	N/A

TABLE 5 (Instructions, Page 59)

Completion of Table 5 is required for all external outfalls which discharge process wastewater from a facility which manufactures or formulates pesticides or herbicides or other wastewaters which may contain pesticides or herbicides.

If this facility does not/will not manufacture or formulate pesticides or herbicides and does not/will not discharge other wastewaters which may contain pesticides or herbicides, check N/A.

N/A

Table 5 for Outfall No.:

Samples are (check one): Composites Grabs

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)*
Aldrin				T	0.01
Carbaryl					5
Chlordane					0.2
Chlorpyrifos					0.05
4,4'-DDD					0.1
4,4'-DDE					0.1
4,4'-DDT					0.02
2,4-D					0.7
Danitol [Fenpropathrin]					-
Demeton					0.20
Diazinon					0.5/0.1
Dicofol [Kelthane]					1
Dieldrin					0.02
Diuron					0.090
Endosulfan I (alpha)					0.01
Endosulfan II (beta)					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Guthion [Azinphos methyl]					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
Hexachlorocyclohexane (alpha)					0.05
Hexachlorocyclohexane (beta)					0.05
Hexachlorocyclohexane (gamma) [Lindane]					0.05
Hexachlorophene					10
Malathion					0.1
Methoxychlor					2.0
Mirex					0.02
Parathion (ethyl)					0.1
Toxaphene					0.3
2,4,5-TP [Silvex]					0.3

^{*} Indicate units if different from µg/L.

TABLE 6 (Instructions, Page 59)

Completion of Table 6 is required for all external outfalls.

Table 6 for Outfall No.: 001

Samples are (check one): ☐ Composites ☐ Grabs

Pollutants	Believed Present	Believed Absent	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)	MAL (μg/L)*
Bromide		⊠					400
Color (PCU)	×		<5.0	N/A	N/A	N/A	-
Nitrate-Nitrite (as N)		×					_
Sulfide (as S)		×					-
Sulfite (as SO3)		×					_
Surfactants		×					
Boron, total		×					20
Cobalt, total		×					0.3
Iron, total		Ø					7
Magnesium, total	⊠		11.6	N/A	N/A	N/A	20
Manganese, total	Ø		0.09	N/A	N/A	N/A	0.5
Molybdenum, total		Ø					1
Tin, total		Ø					5
Titanium, total		Ø					30

^{*} Indicate units if different from µg/L.

TABLE 7 (Instructions, Page 60)

Check the box next to any of the industrial categories applicable to this facility. If no categories are applicable, check N/A. If GC/MS testing is required, check the box provided to confirm the testing results for the appropriate parameters are provided with the application.

□ N/A

Table 7 for Applicable Industrial Categories

Industrial Category		40 CFR	Volatiles	Acids	Bases/Neutrals	Pesticides
muu	istrial Category	Part	Table 8	Table 9	Table 10	Table 11
	Adhesives and Sealants		□ Yes	□ Yes	□ Yes	No
	Aluminum Forming	467	□ Yes	□ Yes	□ Yes	No
	Auto and Other Laundries		□ Yes	□ Yes	□ Yes	□ Yes
	Battery Manufacturing	461	□ Yes	No	□ Yes	No
	Coal Mining	434	No	No	No	No
	Coil Coating	465	□ Yes	□ Yes	□ Yes	No
	Copper Forming	468	□ Yes	□ Yes	□ Yes	No
	Electric and Electronic Components	469	□ Yes	□ Yes	□ Yes	□ Yes
	Electroplating	413	□ Yes	□ Yes	□ Yes	No
	Explosives Manufacturing	457	No	□ Yes	□ Yes	No
	Foundries	8	□ Yes	□ Yes	□ Yes	No
	Gum and Wood Chemicals - Subparts A,B,C,E	454	□ Yes	□ Yes	No	No
	Gum and Wood Chemicals - Subparts D,F	454	□ Yes	□ Yes	□ Yes	No
	Inorganic Chemicals Manufacturing	415	□ Yes	□ Yes	□ Yes	No
	Iron and Steel Manufacturing	420	□ Yes	□ Yes	□ Yes	No
	Leather Tanning and Finishing	425	☐ Yes	□ Yes	□ Yes	No
	Mechanical Products Manufacturing		□ Yes	□ Yes	□ Yes	No
	Nonferrous Metals Manufacturing	421,471	□ Yes	□ Yes	□ Yes	□ Yes
	Oil and Gas Extraction - Subparts A, D, E, F, G, H	435	□ Yes	□ Yes	□ Yes	No
	Ore Mining - Subpart B	440	No	□ Yes	No	No
\boxtimes	Organic Chemicals Manufacturing	414		⊠ Yes		⊠ Yes
	Paint and Ink Formulation	446,447	□ Yes	□ Yes	□ Yes	No
	Pesticides	455	□ Yes	□ Yes	□ Yes	□ Yes
	Petroleum Refining	419	□ Yes	No	No	No
	Pharmaceutical Preparations	439	□ Yes	□ Yes	□ Yes	No
	Photographic Equipment and Supplies	459	□ Yes	□ Yes	□ Yes	No
	Plastic and Synthetic Materials Manufacturing	414	□ Yes	□ Yes	□ Yes	□ Yes
	Plastic Processing	463	□ Yes	No	No	No
	Porcelain Enameling	466	No	No	No	No
	Printing and Publishing		□ Yes	□ Yes	□ Yes	□ Yes
	Pulp and Paperboard Mills - Subpart C	430	п *	□ Yes	o *	□ Yes
	Pulp and Paperboard Mills - Subparts F, K	430	o *	□ Yes	- *	o *
	Pulp and Paperboard Mills - Subparts A, B, D, G, H	430	□ Yes	□ Yes	o *	o *
	Pulp and Paperboard Mills - Subparts I, J, L	430	□ Yes	□ Yes	- *	□ Yes
	Pulp and Paperboard Mills - Subpart E	430	□ Yes	□ Yes	□ Yes	o *
	Rubber Processing	428	□ Yes	□ Yes	□ Yes	No
	Soap and Detergent Manufacturing	417	□ Yes	□ Yes	□ Yes	No
	Steam Electric Power Plants	423	□ Yes	□ Yes	No	No
_	Textile Mills (Not Subpart C)	410	□ Yes	□ Yes	□ Yes	No
_	Timber Products Processing	429	□ Yes	□ Yes	□ Yes	□ Yes

^{*} Test if believed present.

TABLES 8, 9, 10, and 11 (Instructions, Page 60)

Completion of Tables 8, 9, 10, and 11 is required as specified in Table 7 for all external outfalls that contain process wastewater.

Completion of Tables 8, 9, 10, and 11 **may be required** for types of industry not specified in Table 7 for specific parameters that are believed to be present in the wastewater.

Table 8 for Outfall No.: <u>001</u>: Volatile Compounds

Samples are (check one): Composites □ Grabs

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)	
Acrolein	<8.0	N/A	N/A	N/A		
Acrylonitrile	<43.0	<43.0	<43.0	<43.0	50	
Benzene	<1.0	<1.0	<1.0	<1.0	10	
Bromoform	<2.0	<2.0	<2.0	<2.0	10	
Carbon tetrachloride	<2.0	<2.0	<2.0	<2.0	2	
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	10	
Chlorodibromomethane	2.0	9.0	12.0	14.0	10	
Chloroethane	<1.0	N/A	N/A	N/A	50	
2-Chloroethylvinyl ether	<10.0	N/A	N/A	N/A	10	
Chloroform	23.0	55.0	22.0	31.0	10	
Dichlorobromomethane [Bromodichloromethane]	10.0	28.0	25.0	24.0	10	
1,1-Dichloroethane	<1.0	N/A	N/A	N/A	10	
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	10	
1,1-Dichloroethylene [1,1-Dichloroethene]	<1.0	<1.0	<1.0	<1.0	10	
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	10	
1,3-Dichloropropylene [1,3-Dichloropropene]	<2.0	<2.0	<2.0	<2.0	10	
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	10	
Methyl bromide [Bromomethane]	<2.0	N/A	N/A	N/A	50	
Methyl chloride [Chloromethane]	<1.0	N/A	N/A	N/A	50	
Methylene chloride [Dichloromethane]	<1.0	<1.0	<1.0	<1.0	20	
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	10	
Tetrachloroethylene [Tetrachloroethene]	<1.0	<1.0	<1.0	<1.0	10	
Toluene	<1.0	<1.0	<1.0	<1.0	10	
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]	<1.0	N/A	N/A	N/A	10	
1,1,1-Trichloroethane	<1.0	<1.0	<1.0	<1.0	10	
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	10	
Trichloroethylene [Trichloroethene]	<1.0	<1.0	<1.0	<1.0	10	
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	10	

^{*} Indicate units if different from µg/L.

Table 9 for Outfall No.: <u>001</u> : Acid Compounds

Samples are (check one): ☐ Composites ☐ Grabs

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)	
2-Chlorophenol	<0.50	N/A	N/A	N/A	10	
2,4-Dichlorophenol	<0.69	N/A	N/A	N/A	10	
2,4-Dimethylphenol	<0.53	<0.54	<0.53	<0.53	10	
4,6-Dinitro-o-cresol	<0.66 <1.40	N/A N/A	N/A	N/A N/A	50	
2,4-Dinitrophenol			N/A		50	
2-Nitrophenol	<0.88	N/A	N/A	N/A	20	
4-Nitrophenol	<1.10	N/A	N/A	N/A N/A	50 10	
p-Chloro-m-cresol	<0.53	N/A	N/A			
Pentachlorophenol	<0.50	<0.51	<0.50	<0.50	5	
Phenol	<0.44	N/A	N/A	N/A	10	
2,4,6-Trichlorophenol	<0.79	N/A	N/A	N/A	10	

^{*} Indicate units if different from µg/L.

Table 10 for Outfall No.: <u>001</u>: Base/Neutral Compounds

Samples are (check one): ☐ Composites ☐ Grabs

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
Acenaphthene	<0.28	N/A	N/A	N/A	10
Acenaphthylene	<0.47	N/A	N/A	N/A	10
Anthracene	<0.35	<0.35	<0.35	<0.35	10
Benzidine	<0.66	<0.67	<0.66	<0.66	50
Benzo(a)anthracene	<0.38	<0.38	<0.38	<0.38	5
Benzo(a)рутепе	<0.85	<0.86	<0.85	<0.85	5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]	<0.57	N/A	N/A	N/A	10
Benzo(ghi)perylene	<0.63	N/A	N/A	N/A	20
Benzo(k)fluoranthene	<0.57	N/A	N/A	N/A	5
Bis(2-chloroethoxy)methane	<0.35	N/A	N/A	N/A	10
Bis(2-chloroethyl)ether	<0.72	<0.73	<0.72	<0.72	10
Bis(2-chloroisopropyl)ether	<0.85	N/A	N/A	N/A	10
Bis(2-ethylhexyl)phthalate	<2.2	N/A N/A		N/A	10
4-Bromophenyl phenyl ether	<0.41	N/A	N/A	N/A	10
Butylbenzyl phthalate	<0.69	N/A	N/A	N/A	10
2-Chloronaphthalene	<0.28	N/A	N/A	N/A	10
4-Chlorophenyl phenyl ether	<0.66	N/A	N/A	N/A	10
Chrysene	<0.57	<0.58	<0.57	<0.57	5
Dibenzo(a,h)anthracene	<0.69	N/A N/A		N/A	5
1,2-Dichlorobenzene [o-Dichlorobenzene]	<0.41	<0.41 <0.41		<0.41	10
1,3-Dichlorobenzene [m-Dichlorobenzene]	<0.53	<0.54	<0.53	<0.53	10
1,4-Dichlorobenzene [p-Dichlorobenzene]	<0.25	<0.25	<0.25	<0.25	10
3,3'-Dichlorobenzidine	<0.88	<0.89	<0.88	<0.88	5

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)	
Diethyl phthalate	<0.63	N/A	N/A	N/A		
Dimethyl phthalate	<0.72	N/A	N/A	N/A	10	
Di-n-butyl phthalate	<1.2	<1.2	<1.2	<1.2	10	
2,4-Dinitrotoluene	<0.97	N/A	N/A	N/A	10	
2,6-Dinitrotoluene	<1.2	N/A	N/A	N/A	10	
Di-n-octyl phthalate	<2.8	N/A	N/A	N/A	10	
1,2-Diphenylhydrazine (as Azobenzene)	<0.22	N/A	N/A	N/A	20	
Fluoranthene	<0.44	N/A	N/A	N/A	10	
Fluorene	<0.47	N/A	N/A	N/A	10	
Hexachlorobenzene	<0.69	<0.70	<0.69	<0.69	5	
Hexachlorobutadiene	<0.41	<0.41	<0.41	<0.41	10	
Hexachlorocyclopentadiene	<0.35	<0.35	<0.35	<0.35	10	
Hexachloroethane	<0.47	<0.47	<0.47	<0.47	20	
Indeno(1,2,3-cd)pyrene	<0.22	N/A	N/A	N/A	5	
Isophorone	<0.28	N/A	N/A	N/A	10	
Naphthalene	<0.31	N/A	N/A	N/A	10	
Nitrobenzene	<0.91	<0.92	<0.91	<0.91	10	
N-Nitrosodimethylamine	<0.79	N/A	N/A	N/A	50	
N-Nitrosodi-n-propylamine	<0.72	N/A	N/A	N/A	20	
N-Nitrosodiphenylamine	<0.47	N/A	N/A	N/A	20	
Phenanthrene	<0.44	<0.44	<0.44	<0.44	10	
Pyrene	<0.57	N/A	N/A	N/A	10	
1,2,4-Trichlorobenzene	<0.53	N/A	N/A	N/A	10	

^{*} Indicate units if different from μg/L.

Table 11 for Outfall No.: <u>OO1</u>: Pesticides Samples are (check one): ⊠ Composi

Composites Grabs Sample 1 Sample 2 Sample 3 **Pollutant** Sample 4 MAL $(\mu g/L)^*$ $(\mu g/L)^*$ $(\mu g/L)^*$ $(\mu g/L)^*$ $(\mu g/L)$ Aldrin <0.004 N/A N/A N/A 0.01 alpha-BHC [alpha-Hexachlorocyclohexane] <0.003 N/A N/A N/A 0.05 beta-BHC [beta-Hexachlorocyclohexane] < 0.004 N/A N/A N/A 0.05 gamma-BHC [gamma-Hexachlorocyclohexane] < 0.004 N/A N/A N/A 0.05 delta-BHC [delta-Hexachlorocyclohexane] < 0.006 N/A N/A N/A 0.05 Chlordane <0.1 N/A N/A N/A 0.2 4,4'-DDT < 0.004 N/A N/A N/A 0.02 4,4'-DDE <0.009 N/A N/A N/A 0.1 4,4'-DDD <0.002 N/A N/A N/A 0.1 Dieldrin <0.005 N/A N/A N/A 0.02 Endosulfan I (alpha) < 0.007 N/A N/A N/A 0.01 Endosulfan II (beta) < 0.004 N/A N/A N/A 0.02 Endosulfan sulfate < 0.005 N/A N/A N/A 0.1

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)	
Endrin	<0.004	N/A	N/A	N/A	0.02	
Endrin aldehyde	<0.003	N/A	N/A	N/A	0.1	
Heptachlor	<0.004	N/A	N/A	N/A	0.01	
Heptachlor epoxide	<0.004	N/A	N/A	N/A	0.01	
PCB 1242	<0.03	<0.03	<0.03	<0.03	0.2	
PCB 1254	<0.03	<0.03	<0.03	<0.03	0.2	
PCB 1221	<0.03	<0.03	<0.03	<0.03	0.2	
PCB 1232	<0.03	<0.03	<0.03	<0.03	0.2	
PCB 1248	<0.03	<0.03	<0.03	<0.03	0.2	
PCB 1260	<0.03	<0.03	<0.03	<0.03	0.2	
PCB 1016	<0.03	<0.03	<0.03	<0.03	0.2	
Toxaphene	<0.1	N/A	N/A	N/A	0.3	

^{*} Indicate units if different from µg/L.

Attachment: N

TABLE 12 (DIOXINS/FURAN COMPOUNDS)

Complete of Table 12 is required for external outfalls, as directed below. (Instructions, Pages 60-61)

a.	Indicate which compound(s) are manufactured or used at the facility and provide a brief description of the conditions of its/their presence at the facility (check all that apply).									
		2,4,5-tri	chlore	phenoxy acetic acid (2,4,5-T)	CASRN	93-76-5				
		2-(2,4,5	trichl	orophenoxy) propanoic acid (Silvex, 2,4,5-TP)	CASRN	93-72-1				
		2-(2,4,5	trichl	orophenoxy) ethyl 2,2-dichloropropionate (Erbon)	CASRN	136-25-4				
		o,o-dimethyl o-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel) CASRN 299-84-3								
		2,4,5-tri	chlore	CASRN	95-95-4					
		hexachlo	roph	CASRN	70-30-4					
	\boxtimes	None of	the al	oove						
	Des	cription:]	N/A							
b.	Does the applicant or anyone at the facility know or have any reason to believe that 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) or any congeners of TCDD may be present in the effluent proposed for discharge?									
		Yes	\boxtimes	No						
	Desc	ription: <u>N</u>	<u> </u>							
If v	es to	either Ite	ems a	or b. complete Table 12 as instructed.						

Table 12 for Outfall No.: N/A Samples are (check one): Composites Grabs Wastewater Sludge **Toxicity** Wastewater Sludge **Toxicity Toxicity** Compound MAL **Equivalent** Concentration Concentration **Equivalents Equivalents** (ppq) **Factors** (ppq) (ppt) (ppq) (ppt) 2,3,7,8-TCDD 1 10 1,2,3,7,8-PeCDD 1.0 50 2,3,7,8-HxCDDs 0.1 50 1,2,3,4,6,7,8-HpCDD 0.01 50 2,3,7,8-TCDF 0.1 10 1,2,3,7,8-PeCDF 0.03 50 2,3,4,7,8-PeCDF 0.3 50 2,3,7,8-HxCDFs 0.1 50 2,3,4,7,8-HpCDFs 0.01 50 OCDD 0.0003 100 OCDF 0.0003 100 PCB 77 0.0001 500 PCB 81 0.0003 500 PCB 126 0.1 500 PCB 169 0.03 500 Total TABLE 13 (HAZARDOUS SUBSTANCES)

Co	mple	ete Table	13 is r	equire	d for all ex	ternal outfa	alls as directe	ed below. (Ins	structions, Pa	ge 61)			
a.	a. Are there any pollutants listed in the instructions (pages 55-62) believed present in the discharge?												
		Yes	\boxtimes	No		,							
b.	b. Are there pollutants listed in Item 1.c. of Technical Report 1.0 which are believed present in the discharge and have not been analytically quantified elsewhere in this application?												
		Yes	\boxtimes	No									
If y	es to	o either It	ems a	or b, co	omplete Tal	ble 13 as instr	ructed.						
Tal	ble 1	3 for Out	fall N	o.: <u>N/A</u>									
Sar	mple	s are (ch	eck or	ne): [Compo	sites 🗆	Grabs						
Po	ollut	ant			CASRN	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Analytical Method			
_				$-\downarrow$									
_													
_													

WORKSHEET 3.0 LAND APPLICATION OF EFFLUENT

This worksheet is required for all applications for a permit to dispose of wastewater by land application.

TYPE OF DISPOSAL SYSTEM (Instructions, Page 70)

	Irrigation Evaporation	pe of land disposal reques		Subsurface application Subsurface soils absorpt	ion
	Evaporation be	eds		Surface application	
	Drip irrigation system			Other, specify:	
2.	LAND APPLIC	ATION AREA (Ins	tructi	ions, Page 70)	
Lan	d Application Area Inf	formation			
Effluent Application (gallons/day)		Irrigation Acreage (acres)		Describe land use & cate type(s) of crop(s)	Public Access? (Y/N)
			_		
1	ı				

3. ANNUAL CROPPING PLAN (Instructions, Page 70)

Attach the required cropping plan that includes each of the following:

- Cool and warm season plant species
- Breakdown of acreage and percent of total acreage for each crop
- Crop growing season
- Harvesting method/number of harvests
- Minimum/maximum harvest height
- Crop yield goals
- Soils map
- Nitrogen requirements per crop
- Additional fertilizer requirements
- Supplemental watering requirements
- Crop salt tolerances
- Justification for not removing existing vegetation to be irrigated

4. WELL AND MAP INFORMATION (Instructions, Page 71) Check each box to confirm the required information is shown and labeled on the attached USGS map: The exact boundaries of the land application area On-site buildings Waste-disposal or treatment facilities Effluent storage and tailwater control facilities All surface waters in the state onsite and within 500 feet of the property boundaries All water wells within ½-mile of the disposal site, wastewater ponds, or property boundaries All springs and seeps onsite and within 500 feet of the property boundaries b. List and cross reference all water wells located on or within 500 feet of the disposal site, wastewater ponds, or property boundaries in the following table. Attach additional pages as necessary to include all **Proposed Best** of the wells. Open, cased, capped, Well and Map Information Table **Management Practice** Producing? or plugged? Y/N/U Well Use Well ID Groundwater monitoring wells or lysimeters are/will be installed around the land application site or If yes, provide the existing/proposed location of the monitoring wells or lysimeters on the site map wastewater ponds. attached for Item 4.a. Additionally, attach information on the depth of the wells or lysimeters, sampling schedule, and monitoring parameters for TCEQ review, possible modification, and approval. d. Attach a short groundwater technical report using 30 TAC § 309.20(a)(4) as guidance.

5. SOIL MAP AND SOIL INFORMATION (Instructions, Page 72)
5. SOIL MAP AND SOIL IN 1
Check each box to confirm that the following information is attached:
a. USDA NRCS Soil Survey Map depicting the area to be used for land application with the research identified by fields and crops
b. □ Breakdown of acreage and percent of total acreage for each soil type
c. Copies of laboratory soil analyses
Attachment:
A TORY ACCREDITATION CERTIFICATION (Instructions,
6. LABORATURI ACCREDITION
Page 73) Effective July 1, 2008, all laboratory tests performed must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification with the following general exemptions:
a. The laboratory is an in-house laboratory and is:
v. v. v. in amounted by the TCEO: Of
is accredited or inspected by that state,
ii. located in another state and is accredited of the partial same site; or iii. performing work for another company with a unit located in the same site; or
iii. performing work for another company with a darker or charitable organization.
iv performing pro bono work for a governmental agency
b. The laboratory is accredited under federal law.
c. The data are needed for emergency-response activities, and a survey of the data are needed for emergency-response activities, and a survey of the data are needed for emergency-response activities, and a survey of the data are needed for emergency-response activities, and a survey of the data are needed for emergency-response activities, and a survey of the data are needed for emergency-response activities, and a survey of the data are needed for emergency-response activities, and a survey of the data are needed for emergency-response activities, and a survey of the data are needed for emergency-response activities, and a survey of the data are needed for emergency is not available.
the Jote for which the TCEO does not one above
Review 30 TAC Chapter 25 for specific requirements. The following certification statements.
and submitted with every application. See Histractions, Tagody. I, , certify that all laboratory tests submitted with this application meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.
(Signature)

7. EFFLUENT MONITORING DATA (Instructions, Page 73)

Completion of Table 14 **is required** for all **renewal** and **major amendment** applications. Complete the table with monitoring data for the previous two years for all parameters regulated in the current permit. An additional table has been provided with blank headers for parameters regulated in the current permit which are not listed in Table 14.

Table 14 for Site No.: Grabs Composites Hydraulic Samples are (check one): **Total** Application rate Conductivity Nitrogen acres TSS (acre-feet/month) BOD_5 Daily Avg (mmhos/cm) irrigated Date (mg/L)(mg/L)(mg/L)Flow (gpd) (mo/yr)

Attach an explanation of all persistent excursions to permitted parameters and corrective actions taken.

Use this table to provide effluent analysis for parameters regulated in the current permit which are not listed in Table 14.

Additional Parameter Effluent Analysis

Date (mo/yr)				
hi				
Y				

Attach an explanation of all persistent excursions to permitted parameters and corrective actions taken.

Attachment:

8. POLLUTANT ANALYSIS (Instructions, Page 73)

- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018):
- b.

 Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
- c. Completion of Tables 15 and 16 **is required** for all applications for the authorization of land application.

Table 15 for Site No.:		; Samples	are (check one):		Composites	□ Grabs
Pollutant	Sam	nple 1 (mg/L)		mple 2 (mg/L)	_	Sample 3 (mg/L)	Sample 4 (mg/L)
BOD (5-day)							-
CBOD (5-day)							
Chemical oxygen demand							
Total organic carbon					T		
Ammonia nitrogen					T		
Total suspended solids					T		
Nitrate nitrogen					T		
Total organic nitrogen					1		
Total phosphorus					\top		
Oil and grease					 		
Total residual chlorine					+		
Total dissolved solids			†		+		
Sulfate					\vdash		
Chloride					\vdash		
Fluoride					\vdash		
Fecal Coliform (efu/100 mL)			-		+-		
Specific conductance (mmhos/	'cm)		-		\vdash		
pH (standard units; min/max)			 		\vdash		
Soluble sodium			 		-		
Soluble calcium					-		
Soluble magnesium					_		
SAR (unitless)			 				
							
Table 16: for Site No.:		; Samples	are (check one):		Composites	☐ Grabs
Pollutant	Sample 1 (µg/L)	Sample 2 (µ	ug/L)	Sample 3 (µg/	/L)	Sample 4 (µg/L)	
Aluminum, total		<u> </u>					2.5
Antimony, total							5
Arsenic, total							0.5
Barium, total							3
Beryllium, total							0.5
Boron, total							20
Cadmium, total							1
Chromium, total							3
Chromium, hexavalent							3
Chromium, trivalent							N/A
Copper, total							2
Cyanide							2/10
Lead, total					\neg		0.5
Mercury, total	100				\neg		0.005/0.0005
Nickel, total					\exists		2
Selenium, total					\neg		5
Silver, total					\dashv		0.5
Thallium, total					十		0.5

Zinc, total

5.0

WORKSHEET 3.1 SURFACE LAND APPLICATION AND EVAPORATION

This worksheet **is required** for all applications for a permit to dispose of wastewater by surface land application or evaporation.

1. EDWARDS AQUIFER (Instructions, Page 74)

a.	Is the facility subject to 30 TAC Chapter 213, Edwards Aquifer Rules?
	□ Yes □ No
	If no, proceed to Item 2. If yes, complete Items 1.b and 1.c.
b.	Check the box next to the subchapter applicable to the facility.
	□ 30 TAC Chapter 213, Subchapter A
	☐ 30 TAC Chapter 213, Subchapter B
c.	If 30 TAC Chapter 213, Subchapter A applies, attach either : 1) a Geologic Assessment (if conducted in accordance with 30 TAC § 213.5) or 2) a report that contains the following information:
	 A description of the surface geological units within the proposed land application site and wastewater pond area.
	The location and extent of any sensitive recharge features in the land application site and wastewater pond area
	 A list of any proposed BMPs to protect the recharge features.
At	tachment:
2.	SURFACE SPRAY/IRRIGATION (Instructions, Pages 74-75)
a.	Provide the following information on the irrigation operations:
	Area under irrigation (acres):
	Design application rate (acre-ft/acre/yr):
	Design application frequency (hours/day):
	Design application frequency (days/week):
	Design total nitrogen loading rate (lbs nitrogen/acre/year):
	Average slope of the application area (percent):
	Maximum slope of the application area (percent):
	Irrigation efficiency (percent):
	Effluent conductivity (mmhos/cm):
	Soil conductivity (mmhos/cm):
	Curve number:
	Describe the application method and equipment:
b.	Attach a detailed engineering report which includes a water balance, storage volume calculations, and a

Page **38** of **77**

nitrogen balance.

Attachment:

3. EVAPORATION PONDS (Instructions, Page 75)

a. Daily average effluent flow into ponds:

gallons per day

b. Attach a separate engineering report of evaporation calculations for average long-term and worst-case critical conditions.

Attachment:

4. EVAPOTRANSPIRATION BEDS (Instructions, Page 75)

a. Provide the following information on the evapotranspiration beds:

Number of beds:

Area of bed(s) (acres):

Depth of bed(s) (feet):

Void ratio of soil in the beds:

Storage volume within the beds (include units):

Description of any lining to protect groundwater:

b. Attach a certification by a licensed Texas professional engineer that the liner meets TCEQ requirements.

Attachment:

c. Attach a separate engineering report with water balance, storage volume calculations, and description of the liner.

Attachment:

5. OVERLAND FLOW (Instructions, Page 75)

a. Provide the following information on the overland flow:

Area used for application (acres):

Slopes for application area (percent):

Design application rate (gpm/foot of slope width):

Slope length (feet):

Design BOD₅ loading rate (lbs BOD₅/acre/day):

Design application frequency (hours/day):

Design application frequency (days/week):

b. Attach a separate engineering report with the method of application and design requirements according to 30 TAC § 217.212.

WORKSHEET 3.2 SUBSURFACE IRRIGATION SYSTEMS (NON-DRIP)

This worksheet is required for all applications for a permit to dispose of wastewater by subsurface land application. Check the box to confirm the Class V Injection Well Inventory/Authorization Form (Worksheet 9.0) has been submitted to the TCEQ UIC Permits Team as directed. 1. **EDWARDS AQUIFER (Instructions, Page 76)** a. The subsurface system is/will be located on the Edwards Aquifer Recharge Zone, as mapped by the TCEQ? No Yes b. The subsurface system is/will be located on the Edwards Aquifer Transition Zone, as mapped by the TCEO? Yes No If ves to Item 1.a or 1.b, the subsurface system may be prohibited by 30 TAC § 213.8. Contact the Water Ouality Assessment Section at (512) 239-4671 to determine if the proposed activity is affected by this rule. **SUBSURFACE APPLICATION (Instructions, Page 76)** a. Check the box next to the type of subsurface land disposal system requested by this application: Conventional drainfield, beds, or trenches Low pressure dosing Other: b. Provide the following information on the irrigation operations: Application area (acres): Area of drainfield (square feet): Application rate (gal/square ft/day): Depth to groundwater (feet): Area of trench (square feet): Dosing duration per area (hours): Number of beds: Dosing amount per area (inches/day): Soil infiltration rate (inches/hour): Storage volume (gallons): Area of bed(s) (square feet): Soil classification: c. Attach a separate engineering report using 30 TAC § 309.20, Subchapter C, Land Disposal of Sewage Effluent as guidance, excluding items b(3)(A) and b(3)(B). Include a description of the schedule of dosing basin rotation.

WORKSHEET 3.3 SUBSURFACE AREA DRIP DISPERSAL SYSTEMS

Thi	worksheet is required for all applications for a permit to dispose of wastewater using a SADDS.								
	Check the box to confirm the Class V Injection Well Inventory/Authorization Form (Worksheet 9.0) for this type of disposal system has been submitted to the TCEQ UIC Permits Team as directed.								
1.	EDWARDS AQUIFER (Instructions, Page 76)								
a.	The SADDS is/will be located on the Edwards Aquifer Recharge Zone, as mapped by the TCEQ?								
	□ Yes □ No								
b.	The SADDS is/will be located on the Edwards Aquifer Transition Zone, as mapped by the TCEQ?								
	□ Yes □ No								
	If yes to Item 1.a or 1.b, the SADDS may be prohibited by <i>30 TAC § 213.8</i> . Contact the Water Quality Assessment Section at (512) 239-4671 to determine if the proposed activity is affected by this rule.								
2.	ADMINISTRATIVE INFORMATION (Instructions, Page 77)								
a.	Provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the treatment facility:								
b.	The owner of the land where the WWTF is/will be located is the same as the owner of the WWTF.								
	□ Yes □ No								
	If no , provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the land where the WWTF is/will be located:								
c.	Provide the legal name of the owner of the SADDS:								
d.	The owner of the SADDS is the same as the owner of the WWTF or the site where the WWTF is/will b located.								
	□ Yes □ No								
	If no , identify the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in Item 1.c:								
e.	Provide the legal name of the owner of the land where the SADDS is located:								
f.	The owner of the land where the SADDS is/will be located is the same as owner of the WWTF, the site where the WWTF is located, or the owner of the SADDS.								
	□ Yes □ No								
	If no , provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in item 1.e:								

3. SADDS (Instructions, Pages 78-79) a. Check the box next to the type SADDS requested by this application: Subsurface drip/trickle irrigation Surface drip irrigation Other: b. Attach a description of the SADDS proposed/used by the facility (see instructions for guidance). Attachment: c. Provide the following information on the SADDS: Application area (acres): Soil infiltration rate (inches/hour): Average slope of the application area: Maximum slope of the application area: Storage volume (gallons): Major soil series: Depth to groundwater (feet): Effluent conductivity (mmhos/cm): d. The facility is/will be located west of the boundary shown in 30 TAC § 222.83 and using a vegetative cover of non-native grasses over seeded with cool-season grasses. Yes No If yes, the facility may propose a hydraulic application rate up to, but not to exceed, 0.1 gal/ft²/day. e. The facility is/will be located east of the boundary shown in 30 TAC § 222.83 or is the facility proposing any crop other than non-native grasses. Yes No If yes, the facility must use the formula in 30 TAC § 222.83 to calculate the maximum hydraulic application rate. f. The facility has or plans to submit an alternative method to calculate the hydraulic application rate for approval by the ED.

Number of doses per day:

Hydraulic application rate (gal/square foot/day):Nitrogen application rate (gal/square foot/day):

If **yes**, provide the following information on the hydraulic application rates:

Dosing duration per area (hours):

Rest period between doses (hours):

Dosing amount per area (inches/day):

g. Provide the following dosing information:

No

Number of zones:

Yes

h.	The	e system is	/will	be a surface drip irrigation system using existing native vegetation as a crop?					
		Yes		No					
	If y	es, attach	the f	ollowing information:					
	 A vegetation survey by a certified arborist describing the percent canopy cover and relative percentage of major overstory and understory plant species. 								
		Attachm	ent:						
	•	Sewage E	Effluer	tte engineering report using 30 TAC § 309.20, Subchapter C, Land Disposal of as guidance, excluding items b(3)(A) and b(3)(B). Include a description of the sing basin rotation.					
		Attachm	ent:						
4.	ŀ	REQUII	RED	PLANS (Instructions, Pages 79-80)					
a.	Att	ach a Soil	Evalu	ation with all information required in 30 TAC § 222.73.					
	At	tachment	t:						
b.	Att	ach a Site	Prepa	ration Plan with all information required in 30 TAC § 222.75.					
	At	tachment	t:						
c.	Att	ach a Recl	narge	Feature Plan with all information required in 30 TAC § 222.79.					
	At	tachmen	t:						
d.	Pro	ovide soil sampling and testing with all information required in 30 TAC § 222.157.							
	At	tachmen	t:						
5.]	FLOOD	AN	D RUN-ON PROTECTION (Instructions, Page 80)					
a.	Is t	he existin	g/pro	posed SADDS located within the 100-year frequency flood level?					
		Yes		No					
	Soi	ırce:							
	If y	es, descri	be ho	w the site will be protected from inundation:					
b.	Is t	he existing	g/pro	posed SADDS within a designated floodway?					
		Yes		No					
	If y	es, attach	eithe	r the FEMA flood map or alternate information used to make this determination.					
	Att	tachment	t:						
6.	9	SURFA	CE V	VATERS IN THE STATE (Instructions, Page 80)					
a.		ach a bund I springs/s		p which shows the appropriate buffers on surface waters in the state, water wells,					
	Atl	tachment	t:						
b.	The	e facility h	as or j	plans to request a buffer variance from water wells or waters in the state?					
		Yes		No					
	If y	es, attach	the a	dditional information required in 30 TAC § 222.81(c).					
	ΔH	tachment	١.						

WORKSHEET 4.0 RECEIVING WATERS

This worksheet is required for all TPDES permit applications.

	TO A THOUSAND THE PROPERTY OF THE PARTY OF T	(T	á
1	DOMESTIC DRINKING WATER SUPPLY	Instructions Page X1	
A.o	DOMEDIIC DIMINIMO VALLEDINOCITEDI	LIEROEN CHUCKOURING E CISC OF	,

a. There is a surface water intake for domestic drinking water supply located within 5 (five) mildownstream from the point/proposed point of discharge.										
	□ Yes ⊠ No									
	If no , stop here and proceed to Item 2. If yes , provide the following information:									
	i. The legal name of the owner of the drinking water supply intake:									
	v. The distance and direction from the outfall to the drinking water supply intake:									
b.	Locate and identify the intake on the USGS 7.5-minute topographic map provided for Administrative Report 1.0.									
	☐ Check this box to confirm the above requested information is provided.									
2.	DISCHARGE INTO TIDALLY INFLUENCED WATERS (Instructions, Page 81)									
If t	the discharge is to tidally influenced waters, complete this section. Otherwise, proceed to Item 3.									
a.	Width of the receiving water at the outfall:									
b.	Are there oyster reefs in the vicinity of the discharge?									
	□ Yes □ No									
	If yes, provide the distance and direction from the outfall(s) to the oyster reefs:									
c.	Are there sea grasses within the vicinity of the point of discharge?									
	□ Yes □ No									
	If yes, provide the distance and direction from the outfall(s) to the grasses:									
3.	CLASSIFIED SEGMENT (Instructions, Page 81)									
Th	e discharge is/will be directly into (or within 300 feet of) a classified segment.									
	Yes 🛛 No									
-	yes, stop here. It is not necessary to complete Items 4 and 5 of this worksheet or Worksheet 4.1.									

4. DESCRIPTION OF IMMEDIATE RECEIVING WATERS (Instructions, Page 82)

a.	a. Name of the immediate receiving waters: <u>Dow "A" Canal</u>									
b.	b. Check the appropriate description of the immediate receiving waters:									
		Lake of Su Av (fe	or Pondurface average eet):	d area (acres): depth of the e depth of wate	entire water bo r body within narge point (fe	ody a 500-		Man-Made Channel or Ditch Stream or Creek Freshwater Swamp or Marsh Tidal Stream, Bayou, or Marsh Open Bay Other, specify:		
If 4.	Man- c – 4.8	- Made g below:	Chan	nel or Ditch	or Stream o	r Creek we	re sel	ected above, provide responses to Items		
c.	For the c	existin discharg	g disc ge.	charges, chec	k the descript	ion below tl	at be	st characterizes the area upstream of		
	For the c	new di discharg	schar ge.	ges, check th	e description b	elow that b	est ch	aracterizes the area downstream of		
		Intern uses)	ittent					ning habitat to maintain aquatic life		
	Chec down	k the sonstream	ource(s	s) of the inform discharge):	nation used to	characteriz	e the	area upstream (existing discharge) or		
			al obs	ervation servation by a	djacent landov	vner(s)				
d.	List t the d	he nam ischarge	es of a	ll perennial st t: <u>None</u>	reams that joi	n the receiv	ing w	ater within three miles downstream of		
e.	The r	eceiving al or m	g wate an-ma	r characteristi de dams, pon	cs change with ds, reservoirs,	nin three mi etc.).	iles do	ownstream of the discharge (e.g.,		
	\boxtimes	Yes		No						
	If yes Segm	s, descri ent 120	be hov 1, 1.5 r	w: The Dow w niles downstr	vastewater can eam of the Shi	al discharge ntech disch	es into arge p	o the natural channel Brazos River point.		
f.				ns of the wate oservation:	r body during	normal dry	weatl	ner conditions:		
		⁄ater bo Yes	dy was ⊠	s influenced b _e	y stormwater i	runoff durin	ıg obs	ervations.		
	If yes	, descri	be hov	v:						

5. GENERAL CHARACTERISTICS OF WATER BODY (Instructions, Page 82)

a.	Is the receiving water upstream of the existing discharge or proposed discharge site influenced by any of the following (check all that apply):						
		oil field activities		septic tanks			
		agricultural runoff	\boxtimes	other, specify: Industrial Wastev	vater	Discharge from other	
		upstream discharges	facil	ities in the area			
	ur	ban runoff					
b.	Uses	s of water body observed or evi	dence	e of such uses (check all that apply):		
		livestock watering		industrial water supply	\boxtimes	other, specify:	
		non-contact recreation		irrigation withdrawal		Industrial Wastewate Discharge from other	
		domestic water supply		navigation		facilities in the area	
		contact recreation		picnic/park activities			
		fishing					
c.		cription which best describes the one):	ie aes	thetics of the receiving water and	the sı	ırrounding area (check	
		Wilderness: outstanding na exceptional	itural	beauty; usually wooded or un-pas	stured	l area: water clarity	
		Natural Area: trees or native pastures, dwellings); water cl		etation common; some developme discolored	ent ev	ident (from fields,	
	\boxtimes	Common Setting: not offer	nsive,	developed but uncluttered; water	may	be colored or turbid	
		Offensive: stream does not water discolored	enhar	nce aesthetics; cluttered; highly de	velop	ed; dumping areas;	

WORKSHEET 4.1 WATERBODY PHYSICAL CHARACTERISTICS

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

Complete the transects downstream of the existing or proposed discharges.

1. DATA COLLECTION (Instructions, Pages 83-84)

a.	Date of study:		Time of study:				
	Waterbody name:						
	General location:						
b.	Type of stream upstream one):	of an	existing discharge o	or dov	vnstream of a	prop	osed discharge (check only
	□ perennial		intermittent with p	erenr	nial pools		impoundment
c.	No. of defined stream be	nds:					
	Well:	Mod	lerately:		Poorl	y:	
d.	No. of riffles:						
e.	Evidence of flow fluctuat	ions (check one):				
	□ Minor		Moderate		Severe		
f.	Provide the observed stream uses and where there is evidence of channel obstructions/modifications:						
g.	Complete the following to	able w	rith information rega	ırding	the transect	meas	urements.
Str	earn Transact Data						

Stream Transect Data

Transect Location	Habitat Type*	Water Surface Width (ft)		Stream Depths (ft)**	
					
1					

^{*} riffle, run, glide, or pool

^{**} channel bed to water surface

2. SUMMARIZE MEASUREMENTS (Instructions, Page 84)

Provide the following information regarding the transect measurements:

Streambed slope of entire reach (from USGS map in ft. /ft.):

Approximate drainage area above the most downstream transect from USGS map or county highway map (square miles):

Length of stream evaluated (ft):

Number of lateral transects made:

Average stream width (ft):

Average stream depth (ft):

Average stream velocity (ft/sec):

Instantaneous stream flow (ft3/sec):

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

Flow fluctuations (i.e., minor, moderate, or severe):

Size of pools (i.e., large, small, moderate, or none):

Maximum pool depth (ft):

Total number of stream bends:

Number well defined:

Number moderately defined:

Number poorly defined:

Total number of riffles:

WORKSHEET 5.0 SEWAGE SLUDGE MANAGEMENT AND DISPOSAL

The following information **is required** for all TPDES permit applications that meet the conditions as outlined in Technical Report 1.0, Item 7.

SEWAGE SLUDGE SOLIDS MANAGEMENT PLAN (Instructions, Page 85)

a	. Is t	his a new	perm	it application or an amendment permit application?							
		Yes		No							
b	. Do	es or will t	the fac	ility discharge in the Lake Houston watershed?							
		Yes		No							
-											
			tem 1.	a or 1.b, attach a solids management plan.							
A	ttach	ment:									
2	2. SEWAGE SLUDGE MANAGEMENT AND DISPOSAL (Instructions,										
	P	ages 8	5-86)							
a.	Check the box next to the sludge disposal method(s) authorized under the facility's existing permit (check all that apply).										
		Permitte	ed lan	dfill							
		Marketi	ng and	distribution by the permittee, attach Form TCEQ-00551							
		Register	ed lan	d application site, attach Form TCEQ-00565							
		Processe	ed by t	he permittee, attach Form TCEQ-00744							
		Surface	dispos	al site (sludge monofill), attach Form TCEQ-00744							
		Transpo	rted to	another WWTP							
		Beneficia	al lanc	application, attach Form TCEQ-10451							
		Incinera	tion, a	ttach Form TCEQ-00744							
	Base Failt	ed on the s are to sub	selecti mit th	on(s) made above, complete and attach the required TCEQ forms as directed. e required TCEQ form will result in delays in processing the application							
	Atta	chment	•	2 - Processing the application							
b.	Prov	ide the fo	llowin	g information for each disposal site:							
		osal site n		s and the control of							
	0.550			tration Number:							
				sal site is located:							
	cour	ity where	uispos	at site is located:							
c.	Meth	od of sew	age sl	udge transportation: 🗆 truck 🗀 train 🗀 pipe 🗀 other:							
	TCE	Q Hauler I	Regist	ration Number:							
	Slud	ge is trans	ported	l as a: 🔲 liquid 🖂 semi-liquid 🖂 semi-solid 🖂 solid							
				Solid Solid							

d.	Purp	oose of land application:		reclamation		soil conditioning		N/A		
e.	If sewage sludge is transported to another WWTP for treatment, attach a written statement of contractual agreements confirming that the WWTP identified above will accept and be responsible the sludge from this facility for the life of the permit (at least 5 years).									
	Atta	chment:								
3.		UTHORIZATION age 86)	FOI	R SEWAGI	ESL	UDGE DISPO	SAL	(Instructions		
a.	disp	If this is a new or major amendment application which requests authorization of a new sewage sludge disposal method, check the new sewage disposal method(s) requested for authorization (check all that apply):								
		Marketing and distribut	ion by	the permittee,	attac	h Form TCEQ-00551	L			
		Processed by the permit	tee, at	ttach Form TCE	Q-oo	744				
		Surface disposal site (slu	ıdge r	nonofill), attacl	ı Forr	n TCEQ-00744				
		Beneficial land applicati	on, at	tach Form TCE	Q-104	451				
		Incineration, attach For	m TC	EQ-00744						
		Based on the selection(s) made above, complete and attach any required TCEQ forms, as directed. Failure to submit the required TCEQ form will result in delays in processing the application								
	Attachment:									
NO	TE:	New authorization for be	nefici	al land applicat	ion, i	ncineration, processi	ng, o	r disposal in the		

NOTE: New authorization for beneficial land application, incineration, processing, or disposal in the TPDES permit or TLAP **requires a major amendment to the permit**. New authorization for composting may require a major amendment to the permit. See the instructions to determine if a major amendment is required or if authorization for composting can be added through the renewal process.

WORKSHEET 6.0 INDUSTRIAL WASTE CONTRIBUTION

This worksheet is required for all applications for publicly-owned treatment works (POTWs).

For an explanation of the terms used in this worksheet, refer to the General Definitions on pages 4-12 and the Definitions Relating to Pretreatment on pages 13-14 of the Instructions.

1. ALL POTWS (Instructions, Page 87)

a. Complete the following table with the number of each type of industrial users (IUs) that discharge to the POTW and the daily average flows from each.

Industrial User Information

Type of Industrial User	Number of Industrial Users	Daily Average Flow (gallons per day)					
CIU							
SIU - Non-categorical							
Other IU							
b. In the past three years, has	s the POTW experienced treatment	plant interference?					
□ Yes □ No							
If yes , identify the date(s), source(s) of each interference:	, duration, nature of interference, a nce event. Include the names of the	and probable cause(s) and possible e IU(s) that may have caused the					
c. In the past three years, has	s the POTW experienced pass-thro	ugh?					
□ Yes □ No							
If yes , identify the date(s) cause(s) and possible sour have caused the pass-thro	ce(s) of each pass-through event. I	ugh the treatment plant, and probable neclude the names of the IU(s) that may					
d. Does the POTW have, or is	s it required to develop, an approve	ed pretreatment program?					
□ Yes □ No							
•	ns in Item 2 and skip Item 3.						
If no , skip Item 2 and ans industrial user.	wer all questions in Item 3 for eacl	h significant industrial user and categorical					
2. POTWS WITH APPROVED PRETREATMENT PROGRAMS OR THOSE REQUIRED TO DEVELOP A PRETREATMENT PROGRAM (Instructions, Pages 87-88)							
a. Have there been any substance not been submitted t	tantial modifications to the POTW to the Approval Authority (TCEQ)	's approved pretreatment program that for approval according to 40 CFR § 403.18					
□ Yes □ No							
If yes , include an attachm submitted to the TCEQ an	nent which identifies all substantia nd the purpose of the modifications	l modifications that have not been s.					
Attachment:	*						

b.	Have there been any non-substantial modifications to the POTW's approved pretreatment program that have not been submitted to the Approval Authority (TCEQ)?									
	□ Yes	□ Yes □ No								
				which identifies all non- purpose of the modific		difications that h	ave not been			
	Attachme	nt:								
c.	List all para years:	meter	s measured a	bove the MAL in the PC	TW's effluent i	nonitoring durin	g the last three			
Ef	fluent Paran	neters	Measured A	bove the MAL						
1	Pollutant			Concentration	MAL	Units	Date			
-										
-										
+										
						<u> </u>				
	Attachment:									
d.	Has any SIU, CIU, or other IU caused or contributed to any other problems (excluding interference or pass-through) at the POTW in the past three years?									
	□ Yes		No							
	If yes , provide a description of each episode, including date(s), duration, description of problems, and probable pollutants. Include the name(s) of the SIU(s)/CIU(s)/other IU(s) that may have caused or contributed to any of the problems:									
3.				JSTRIAL USER			99.90)			
	INDUS	IKL	AL USER	INFORMATION	(Instruct	nons, rages	00-09)			
PC inf	TWs that d o	not h	nave an appro SIU and CIU:	ved pretreatment progr	am are requi	red to provide th	e following			
a.	Mr. or Ms.:			First/Last Name:						
	Organizatio	n Nan	ne:	SIC Co	ode:					
	Phone number:			Email	address:					
	Physical Ad	dress:		City/S	City/State/ZIP Code:					
	Attachment:									
b.				es or other activities than-process wastewater):	at affect or cont	ribute to the SIU	(s) or CIU(s)			
	Attachme	nt:								
c.	Provide a de	escript	ion of the pri	ncipal products(s) or se	rvice(s) perfor	med:				

d. Flow rate information

Flow rate information

Effluent Type	Discharge (gallons per day)	Discharge Frequency (continuous, batch, or intermittent)
Process wastewater		(*************************************
Non-process wastewater		

L	11011	proc	CSS W	istewate	.1				
e.	Pr	etrea	tmen	t Stand	ards				
	i.	Is th	ie SIU	J or CI	J subjec	et to techno	ology-based local lim	its as defined in the	application instructions
			Yes						
	ii.	Is th	ie SIU	J subje	ct to cat	egorical pr	etreatment standard	s?	
			Yes						
	If yes , provide the cate Pretreatment Standard				he categ andards	ory and su table.	bcategory or subcate	gories in the SIUs S	Subject To Categorical
SI	Us S	ubje	ct To	Catego	rical P	retreatmer	nt Standards		
		tego 40 C	ry in FR			egory in CFR	Subcategory in 40 CFR	Subcategory in 40 CFR	n Subcategory in 40 CFR
					7878655T-10-1				
•	Has	the s	SIU o n, blo	r CIU o ckages	aused o	or contribut POTW in tl	ted to any problem(s he past three years?) (e.g., interference:	s, pass through, odors,
		Yes	3		No				
	If yes , provide a description of each episode, including dates, duration, description of problems, and probable pollutants, and include the name(s) of the SIU(s)/CIU(s) that may have caused or contributed to the problem(s):								

WORKSHEET 7.0 STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES

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

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

1. APPLICABILITY (Instructions, Page 90)

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

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

2. STORMWATER OUTFALL COVERAGE (Instructions, Page 91)

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

Authorization coverage

Outfall	Authorized Under MSGP	Authorized Under Individual Permit
002		×
003	0	⊠
005		⊠
007		⊠
008	0	⊠
	0	
	0	
	0	0
	ū	

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

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

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

3. SITE MAP (Instructions, Page 91)

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

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

Attachment: F

4. FACILITY/SITE INFORMATION (Instructions, Pages 91-92)

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

Impervious Surfaces

Outfall	Area of Impervious Surface (include units)	Total Area Drained (include units)
002	880,000 square feet	660,000 square feet
003	880,000 square feet	220,000 square feet
005	800,000 square feet	960,000 square feet
007	880,000 square feet	960,000 square feet
008	1,120,000 square feet	2,080,000 square feet

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

Wettest month: September

Average rainfall for wettest month (total inches): 6.73

25-year, 24-hour rainfall (inches): 11.3

Source: <u>USClimateData.com</u>, <u>NOAA – Hydrometeorological Design Studies Center</u>

- c. Attach an inventory, or list, of materials currently handled at the facility that may be exposed to precipitation. **Attachment:** O
- d. Attach narrative descriptions of the industrial processes and activities involving the materials in the above-listed inventory that occur outdoors or in some manner that may result in exposure of the materials to precipitation or runoff (see instructions for guidance). **Attachment:** P
- e. Describe any BMPs and controls the facility uses/proposes to prevent or effectively reduce pollution in stormwater discharges from the facility: **Attachment: Q**

5. LABORATORY ACCREDITATION CERTIFICATION (Instructions, Page 92)

Effective July 1, 2008, all laboratory tests performed must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification with the following general exemptions:

- a. The laboratory is an in-house laboratory and is:
 - i. periodically inspected by the TCEQ; or
 - ii. located in another state and is accredited or inspected by that state; or
 - iii. performing work for another company with a unit located in the same site; or
 - vi. performing pro bono work for a governmental agency or charitable organization.
- b. The laboratory is accredited under federal law.
- c. The data are needed for emergency-response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.
- d. The laboratory supplies data for which the TCEQ does not offer accreditation.

Review 30 TAC Chapter 25 for specific requirements. The following certification statement shall be signed and submitted with every application. See Instructions, Page 32, for a list of approved signatories.

I, <u>Paul Spinks</u>, certify that all laboratory tests submitted with this application meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification.

(Signature)

6. POLLUTANT ANALYSIS (Instructions, Pages 92-93)

- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): 4/24/24-4/30/24
- b. \(\text{Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.}
- c. Complete Table 17 as directed on page 92 of the Instructions.

Table 17 Pollutant Analysis for Outfall No.: <u>002</u>

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)
pH (standard units)	6.64 (max)		6.64 (min)		1	
Total suspended solids	9.0	1	9.0		1	
Chemical oxygen demand	23.0		23.0		1	_
Total organic carbon	5.4		5.4		1	
Oil and grease	<5.0		<5.0			
Arsenic, total	0.0036		0.0036		1	-
Barium, total	0.11		0.11		1	0.0005
Cadmium, total	<0.0004		<0.0004		1	0.003
Chromium, total	0.0005				1	0.001
Chromium, trivalent	0.0005		0.0005		1	0.003
Chromium, hexavalent	<0.0047		0.0005		1	
Copper, total	0.0076		<0.0047		1	0.003
Lead, total			0.0076		1	0.002
Mercury, total	0.0005		0.0005		1	0.0005
Nickel, total	0.00000062		0.00000062		1	0.000005
	0.0013		0.0013		1	0.002
Selenium, total	<0.0032		<0.0032		1	0.005
Silver, total	<0.0004		<0.0004		1	0.0005
Zinc, total Taken during first 20 min	0.07		0.007		1	0.005

^{*} Taken during first 30 minutes of storm event ** Flow-weighted composite sample

Table 18 Pollutant Analysis for Outfall No.: <u>002</u>

Pollutant	Grab Sample* Maximum (mg/L)	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled
Phosphorous	0.34		0.34		1
Nitrate-Nitrite	0.5		0.5		1
Iron (Fe)	0.2		0.2		
Aluminum (Al)	0.27		0.27		1
Biochemical Oxygen Demand	<2.0		<2.0		1
Takon daning Garage					

^{*} Taken during first 30 minutes of storm event ** Flow-weighted composite sample

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

7. STORM EVENT DATA (Instructions, Page 94)

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

Date of storm event: 4/10/2024

Duration of storm event (minutes): 240 minutes

Total rainfall during storm event (inches): 0.64

Number of hours the between beginning of the storm measured and the end of the previous measurable storm event (hours): 24 hrs

Maximum flow rate during rain event (gallons/minute): 1093

Total stormwater flow from rain event (gallons): 10,858,635

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

Plt 1 Outfall 002 = 1093 (gpm) x rain event duration time (min) - Total Gallons Discharged

Plt 1 Outfall 003 = 318 (gpm) x rain event duration time (min) = Total Gallons Discharged

Plt 2 Outfalls 005 = 400 (gpm) x total minutes discharging = Total Gallons Discharged

Plt 3 Outfalls 007 = 400 (gpm) x total minutes discharging = Total Gallons Discharged

M/H Outfall 008 = 400 (gpm) x total minutes discharging = Total Gallons Discharged

WORKSHEET 8.0 AQUACULTURE

This worksheet is required for all TPDES permit applications requesting individual permit coverage for discharges of aquaculture wastewater.

1. FACILITY/SITE INFORMATION (Instructions, Pages 95-96)

a. Complete the following table with information regarding production ponds, raceways, and fabricated tanks at the facility:

Production Pond Descriptions:

duction Pond Descript Number of Ponds	Dimensions (include units)	Area of Each Pond (include units)	Number of Ponds × Area of Ponds (include units)
	(Motors)		

Total surface area of all ponds:

Raceway Descriptions:

Descriptions:	Dimensions (include units)
lumber of Raceways	

Fabricated Tank Descriptions:

Number of Tanks	Dimensions (include units)
Number of Tables	

L	Dogs the facili	tr har	e a TPWD-approved eme	gongy plon?		
ь.	☐ Yes		e a 17 w <i>D-</i> approved eme No	igency plan:		
			of the approved plan.			
	Attachment	100 P				
_			e an aquatic plant transpl	ant authorization?		
C.	□ Yes	tors.	e an aquatic piant transpi No	ant aumorization:		
	PAIT .	10-2	of the authorization letter			
	Attachment		of the authorization lette.			
d.	Provide the n	ımber	of aquaculture facilities lo	ocated within 25-mi	les of this facility:	
			ENTIFICATION (1			
2.					200 200	
Co	mplete the follo	owing b	table regarding each speci es of any current relevant	ies raised, source, o	rigin, and disease s ermits that authori	tatus of the stock. ze the species.
	ock Species Inf					1
	pecies		Source of Stock	Origin of Stock	Disease Status	Authorizations
	<u> </u>					
_						
		77/07/38	beautistic verice	<u> </u>	L	
	Attachment					
3.	STOCK	MAN	AGEMENT PLAN	(Instruction	s, Page 96)	
At	tach a detailed	stock r	nanagement plan.			
At	tachment:					
4.			ATMENT AND DI s, Page 97)	ISCHARGE D	ESCRIPTION	
At	tach a detailed	descrip	otion of the discharge prac	ctices and water tre	atment process(es)	
	tachment:					
5.	SOLID V	VAS'	TE MANAGEMEN	T (Instructio	ns, Page 97)	
Att	tach a descripti	on of t	he solid waste-disposal pr	actices.		
	tachment:		rama i de la companya			
4	CITE AC	CEC	SMENT DEDOOT	(Instructions	Pages 07-09	0

SITE ASSESSMENT REPORT (Instructions, Pages 97-98)

All new and expanding commercial shrimp facilities located/to be located within the coastal zone must attach a detailed site assessment report which identifies sensitive aquatic habitats within the coastal zone.

WORKSHEET 9.0 CLASS V INJECTION WELL INVENTORY/AUTHORIZATION FORM

SUBMIT TO: For TCEQ Use Only **TCEO** TEXAS COMMISSION ON Reg. No. **UIC Permits Team ENVIRONMENTAL QUALITY** Radioactive Materials Date Received: Division CLASS V INJECTION WELL Date Authorized: MC 233 INVENTORY/ AUTHORIZATION FORM PO Box 13087 Austin, Texas 78711-3087 512/239-6466 Reg. No. 5

Class V Well Designation Code:

SECTION I GENERAL INFORMATION (Instructions, Page 101)

Provide the requested information for Items 1 through 8. 1. TCEQ Program (PST, VCP, IHW, etc.): Program ID: Contact Name: Phone Number: 2. Agent/Consultant: Contact Name: Phone Number: Address (Street, City, State, and Zip Code): Owner Operator Owner/Operator: Contact Name: Phone Number: Address (Street, City, State, and Zip Code): 4. Facility Name: Address (Street, City, County, State, and Zip Code) or location description (if no address is available): Contact Name: Phone Number: 5. Latitude and Longitude (degrees-minutes-seconds): Method of determination (GPS, TOPO, etc.): Attach topographic quadrangle map as Attachment A. 6. Type of Well Construction (Vertical Injection, Subsurface Fluid Distribution System, Infiltration Gallery, Temporary Injection Points, etc.): Number of Injection Wells: Detailed Description regarding purpose of Injection System: Attach a Site Map as Attachment B (Include Approved Remediation Plan, if appropriate). 8. Water Well Driller/Installer: License Number: Address (Street, City, State, and Zip Code): Phone Number:

SECTION II PROPOSED DOWN HOLE DESIGN

Attach a diagram signed and sealed by a licensed engineer as Attachment C

Name of String	Size	Setting Depth	Sacks Cement/Grout - Slurry Volume - Top of Cement	Hole Size	Weight PVC/Steel (lbs/ft)
9. Casing					
10. Tubing					
11. Screen					

SECTION III PROPOSED TRENCH SYSTEM, SUBSURFACE FLUID DISTRIBUTION SYSTEM, OR INFILTRATION GALLERY

Attach a diagram signed and sealed by a licensed engineer as Attachment D and provide the information requested in Items 12 through 13.

- 12. System(s) Dimensions:
- 13. System(s) Construction:

SECTION IV SITE HYDROGEOLOGICAL AND INJECTION ZONE DATA

SECTION IV SITE III DROGEOLOGICE EL
Provide the information requested in Items 14 through 31.
14. Name of Contaminated Aquifer:
15. Receiving Formation Name of Injection Zone:
16. Well/Trench Total Depth:
17. Surface Elevation:
18. Depth to Ground Water:
19. Injection Zone Depth:
20. Injection Zone vertically isolated geologically? \Box Yes \Box No
Impervious Strata between Injection Zone and nearest Underground Source of Drinking Water:
Name:
• Thickness:
21. Provide a list of contaminants and the levels (ppm) in contaminated aquifer as Attachment E.

- 22. Provide the Horizontal and Vertical extent of contamination and injection plume as Attachment F.
- 23. Provide Formation (Injection Zone) Water Chemistry (Background levels) TDS, etc. as Attachment G.
- 24. Provide the Injection Fluid Chemistry in PPM at point of injection as Attachment H.
- 25. Lowest Known Depth of Ground Water with < 10,000 PPM TDS:
- 26. Maximum injection Rate/Volume/Pressure:
- 27. Water wells within 1/4-mile radius (attach map as Attachment I):
- 28. Injection wells within 1/4-mile radius (attach map as Attachment I):
- 29. Monitor wells within 1/4 mile radius (attach drillers logs and map as Attachment I):
- 30. Sampling frequency:
- 31. Known hazardous components in injection fluid:

SECTION V SITE HISTORY

Provide the information requested in Items 32 through 35

- 32. Type of Facility:
- 34. Provide the original Contamination (VOCs, TPH, BTEX, etc.) and Concentrations as attachment J 33. Contamination Dates:
- 35. Provide the results of any previous remediation as attachment K.

NOTE: Authorization Form should be completed in detail and authorization given by the TCEQ before construction, operation, and/or conversion can begin. Attach additional pages as necessary.

CLASS V INJECTION WELL DESIGNATIONS

- 5A07 Heat Pump/AC return (IW used for groundwater to heat or cool buildings)
- Industrial Cooling Water Return Flow (IW used to cool industrial process equipment)
- 5B22 Salt Water Intrusion Barrier (IW used to inject fluids to prevent the intrusion of salt water into an
- 5Do2 Stormwater Drainage (IW designed for the disposal of rain water)
- 5Do4 Industrial Stormwater Drainage Wells (IW designed for the disposal of rain water associated with industrial facilities)
- Agricultural Drainage (IW that receive agricultural runoff)
- 5R21 Aquifer Recharge (IW used to inject fluids to recharge an aquifer)
- 5S23 Subsidence Control Wells (IW used to control land subsidence caused by groundwater withdrawal)
- 5W10 Large Capacity Cesspools (Cesspools that are designed for 5,000 gpd or greater)
- 5W11 Large Capacity Septic systems (Septic systems designed for 5,000 gpd or greater)
- 5W12 WTTP disposal
- 5W20 Industrial Process Waste-disposal Wells
- 5W31 Septic System (Well Disposal method)
- 5W32 Septic System Drainfield Disposal
- Mine Backfill (IW used to control subsidence, dispose of mining byproducts, or fill sections of a
- 5X25 Experimental Wells (Pilot Test) (IW used to test new technologies or tracer dye studies)
- 5X26 Aquifer Remediation (IW used to clean up, treat, or prevent contamination of a USDW)
- 5X28 Motor Vehicle Waste-disposal Wells (IW used to dispose of waste from a motor vehicle site These 5X27 Other Wells are currently banned)
- 5X29 Abandoned Drinking Water Wells (waste disposal)

WORKSHEET 10.0 QUARRIES IN THE JOHN GRAVES SCENIC RIVERWAY

This worksheet **is required** for all applications for individual permits for a municipal solid waste facilities or mining facilities located within a Water Quality Protection Area in the John Graves Scenic Riverway.

Review 30 TAC §§ 311.71-311.82 thoroughly prior to completing any portion of this worksheet.

WORKSHEEL.						
1. EXCLUSIONS (Instructions, Pages 101-102)						
a. Is this a municipal solid waste facility?						
☐ Yes ☐ No						
 Yes No Has this quarry been in operation since January 1, 1994 without cessation of operation for more than 30 consecutive days and under the same ownership? 						
□ Yes □ No						
c. Is this a coal mine?						
☐ Yes ☐ No						
d. Is this a facility mining clay and/or shale for use in manufacturing of structural clay products?						
☐ Yes ☐ No						
documentation, as outlined in 30 2220 0						
(Joseph Page 102)						
2. LOCATION OF THE QUARRY (Instructions, Page 102)						
Check the box next to the distance between the quarry and the nearest navigable water body: Check the box next to the distance between the quarry and the nearest navigable water body:						
□ < 200 feet □ 200 feet − 1,500 feet □ 1,500 feet 1 miles						
< 200 feet						
Graves Seems 102-104)						
3. ADDITIONAL REQUIREMENTS (Instructions, Pages 102-104)						
3. ADDITIONAL REQUESTION OF THE PROPERTY OF TH						
a. Attach a Restoration Plan:						
b. Amount of Financial Assurance for Restoration: \$						
Mechanism:						
c. Attach a Technical Demonstration:						
d. Attach a Reclamation Plan:						
e. Amount of Financial Assurance for Reclamation: \$						
Mechanism: Page 64 of 77						

WORKSHEET 11.0 COOLING WATER SYSTEM INFORMATION

This worksheet is required for all TPDES permit applications that meet the conditions outlined in Technical Report 1.0, Item 12.

1. COOLING WATER SYSTEM DATA (Instructions, Pages 105-106)

a. Complete the following table with information regarding the cooling water system.

Cooling Water System Data

Total DIF	
Total AIF	
Intake Flow Uses (%)	
Contact cooling	
Non-contact cooling	
Process uses	
Other	

b. Attach the following information:

- i. A narrative description of the design and annual operation of the facility's cooling water system and its relationship to the CWIS(s).
- ii. A scaled map depicting the location of each CWIS, impoundment, intake pipe, and canals, pipes, or waterways used to convey cooling water to, or within, the cooling water system. Provide the latitude and longitude for each CWIS and any intake pipe(s) on the map. Indicate the position of the intake pipe within the water column.
- iii. A description of water reuse activities, if applicable, reductions in total water withdrawals, if applicable, and the proportion of the source waterbody withdrawn (on a monthly basis).
- iv. Design and engineering calculations prepared by a qualified professional and data to support the information provided in above item a.
- v. Previous year (a minimum of 12 months) of AIF data.
- vi. A narrative description of existing or proposed impingement and entrainment technologies or operation measures and a summary of their performance, including, but not limited to, reductions in impingement mortality and entrainment due to intake location and reductions in total water withdrawals and usage.

Attachment:

2. COOLING WATER INTAKE STRUCTURE(S) DATA (Instructions, Page 106)

a. Complete the following table with information regarding each cooling water intake structure (this includes primary and make-up CWIS(s)).

Cooling Water Intake Structure(s) Data

CWIS ID		
DIF		
AIF		
Intake Flow Uses (%)		
Contact cooling		
Non-contact cooling		
Process uses		
Other		
Latitude		
Longitude		

- b. Attach the following information regarding the CWIS(s):
 - i. A narrative description of the configuration of each CWIS, annual and daily operation, including any seasonal changes, and where it is located in the water body and in the water column.
 - ii. Engineering calculations for each CWIS.

Attachment:

3. SOURCE WATER PHYSICAL DATA (Instructions, Pages 106-107)

a. Complete the following table with information regarding the CWIS(s) source waterbody (this includes primary and make-up CWIS(s)).

Source Waterbody Data

CWIS ID		
Source waterbody		
Mean annual flow		
Source		

- b. Attach the following information regarding the source waterbody.
 - i. A narrative description of the source water for each CWIS, including areal dimensions, depths, salinity and temperature regimes, and other documentation that supports this determination of the water body type where each cooling water intake structure is located.
 - ii. A narrative description of the source waterbody's hydrological and geomorphological features.
 - iii. Scaled drawings showing the physical configuration of all source water bodies used by the facility, including the source waterbody's hydrological and geomorphological features. **NOTE:** The source waterbody's hydrological and geomorphological features may be included on the map submitted for item 1.b.ii of this worksheet.
 - iv. A description of the methods used to conduct any physical studies to determine the intake's area of influence within the waterbody and the results of such studies.

4. OPERATIONAL STATUS (Instructions, Page 107) a. Is this application for a power production or steam generation facility? Yes No If no, proceed to Item 4.b. If yes, provide the following information as an attachment: Describe the operating status of each individual unit, including age, capacity utilization rate (or equivalent) for the previous five years (a minimum of 60 months), and any seasonal changes in operation. ii. Describe any extended or unusual outages or other factors which significantly affect current data for flow, impingement, entrainment. iii. Identify any operating unit with a capacity utilization rate of less than 8 percent averaged over a contiguous period of two years (a minimum of 24 months). iv. Describe any major upgrades completed within the last 15 years, including but not limited to boiler replacement, condenser replacement, turbine replacement, or changes of fuel type. Attachment: b. Process Units i. Is this application for a facility which has process units that use cooling water (other than for power production or steam generation)? Yes No If no, proceed to Item 4.c. If yes, continue. ii. Does the facility use or intend to use reductions in flow or changes in operations to meet the requirements of 40 CFR § 125.94(c)? Yes No If **no**, proceed to Item 4.c. If **yes**, attach descriptions of the following information: Individual production processes and product lines The operating status, including age of each line and seasonal operation Any extended or unusual outages that significantly affect current data for flow, impingement, entrainment, or other factors Any major upgrades completed within the last 15 years and plans or schedules for decommissioning or replacement of process units or production processes and product lines. Attachment: c. Is this an application for a nuclear power production facility? Yes If **no**, proceed to Item 4.d. If **yes**, attach a description of completed, approved, or scheduled upgrades and the Nuclear Regulatory Commission relicensing status for each unit at the facility. Attachment: d. Is this an application for a manufacturing facility? Yes No If no, proceed to Worksheet 11.1. If yes, attach descriptions of current and future production schedules and any plans or schedules for any new units planned within the next five years (a minimum of 60 mos)

WORKSHEET 11.1 IMPINGEMENT MORTALITY

This worksheet is required for all TPDES permit applications that meet the conditions outlined in Technical Report 1.0, Item 12. Complete one copy of this worksheet for each individual CWIS the facility uses or proposes to use.

	1-02-120-2	/	
CITA	πc	ID:	
VV	V 1.5	117:	

1. IMPINGEMENT COMPLIANCE TECHNOLOGY SELECTION (Instructions, Page 108)

Cheo facil	ck the box next to the method of compliance for the Impingement Mortality Standard selected by the ity.
	Closed-cycle recirculating system(CCRS) [40 CFR § 125.94(c)(1)]
	0.5 ft/s Through-Screen Design Velocity [40 CFR § 125.94(c)(2)] – Proceed to Worksheet 11.2
	0.5 ft/s Through Screen Actual Velocity [40 CFR § 125.94(c)(3)]
	Existing offshore velocity cap [40 CFR § 125.94(c)(4)] - Proceed to Worksheet 11.2
	Modified traveling screens [40 CFR § 125.94(c)(5)]
	System of technologies [40 CFR § 125.94(c)(6)]
	Impingement mortality performance standard [40 CFR § 125.94(c)(7)]
	De minimis rate of impingement [40 CFR § 125.94(c)(11)]
	Low capacity utilization power-generation facilities [40 CFR § 125.94(c)(12)]

If 0.5 ft/s Through-Screen Design Velocity [40 CFR § 125.94(c)(2)] or existing offshore velocity cap [40 CFR § 125.94(c)(4)] was selected, proceed to Worksheet 11.2. Otherwise, continue to Item 2.

2. IMPINGEMENT COMPLIANCE TECHNOLOGY INFORMATION (Instructions, Pages 108-109)

Complete the following sections based on the selection made for item 1 above.

a.	CCRS	40 CFR	§ 125.94(c)	(1)	1

- ☐ Check this box to confirm the CWS meets the definition of CCRS located at 40 CFR § 125.91(c) and provide a response to the following questions.
- i. Does the facility use or propose to use a CWIS to replenish water losses to the CWS?

□ Yes □ No

If no, proceed to item a.ii. If yes, provide the following information as an attachment and continue.

- 1. CWIS ID
- 2. 12 months of intake flow data for any CWIS used for make-up intake flows to replenish cooling water losses, excluding intakes for losses due to blowdown, drift, or evaporation.
- 3. A narrative description of any physical or operational measures taken to minimize make-up withdraws.

Attachment:

NOTE: Do not complete a separate Worksheet 11.1 for a make-up CWIS.

ii.	Do	es the facili	ty use	e or p	ropose	to use	cooling	towers)					
		Yes		No										
		10, proceed orksheet 11.2		orks	heet 11.:	2. If ye	s, provi	de the f	ollowing	ginforn	ation	and prod	ceed to	
	1.	Average nu	ımbe	r of C	COCs pr	ior to b	olowdow	'n:						
		Average C	OCs I	prior	to blov	vdown	ı							
		Cooling To	wer I	D		-							7	
		COCs						· · · · · · · · · · · · · · · · · · ·	3					
	2.	Attach COO months) Attachme		nitor	ing data	for ea	ch cooli	ng towe	r from t	he prev	ious ye	ear (a mi	inimum of	12
	3.	Maximum	numl	ber o	f COCs	each co	oling to	wer cai	accom	plish ba	sed on	design	of the syste	em.
	Calculated COCs prior to blowdown													
		Cooling To	wer I	D									1	
		COCs												
	4.	Describe co					the nun	nber of	COCs pr	ior to b	lowdov	wn, if an	– y, includir	ıg but

b. 0.5 ft/s Through Screen Actual Velocity [40 CFR § 125.94(c)(3)]

Provide daily intake flow measurement monitoring data from the previous year (a minimum of 12 months) as an attachment and proceed to Worksheet 11.2.

Attachment:

c. Modified traveling screens [40 CFR § 125.94(c)(5)]

Provide the following information as an attachment and proceed to Worksheet 11.2.

- i. A description of the modified traveling screens and associated equipment.
- ii. A site-specific impingement technology performance optimization study that includes a narrative description of the biological data collection methods
- iii. Biological sampling data from the previous two years (a minimum of 24 months).

Attachment:

d. System of technologies [40 CFR § 125.94(c)(6)] or impingement mortality performance standard [40 CFR § 125.94(c)(7)]

Provide the following information as an attachment and proceed to Worksheet 11.2.

- i. A description of the system of technologies used or proposed for use by the facility to achieve compliance with the impingement mortality standard.
- ii. A site-specific impingement technology performance optimization study that includes a narrative description of the biological data collection methods.
- iii. Biological sampling data from the previous two years (a minimum of 24 months).

e. De minimis rate of impingement [40 CFR § 125.94(c)(11)]

Provide the following information and proceed to Worksheet 11.2.

i. Attach monitoring data from the previous year (a minimum of 12 months) of intake flow measured at a frequency of 1/day on days of operation.

Attachment:

ii. If the rate of impingement caused by the CWIS is extremely low (at an organism or age-one equivalent count), attach supplemental information to Worksheet 11.0, item 1.b.vi. to support this determination.

Attachment:

f. Low capacity utilization power-generation facilities [40 CFR § 125.94(c)(12)]

Attach monthly utilization data from the previous 2 years (a minimum of 24 months) for each operating unit and proceed to Worksheet 11.2.

WORKSHEET 11.2 SOURCE WATER BIOLOGICAL DATA

This worksheet **is required** for all TPDES permit applications that **meet the conditions outlined in Technical Report 1.0**, **Item 12**. Complete one copy of this worksheet for **each** source waterbody of a CWIS for which a facility has selected an Impingement Mortality Technology Option described at 40 CFR $\S\S 125.94(c)(1)-(7)$.

Name of source waterbody:

1.	SPECIES MANAGEMENT (Instructions, Page 110)
a.	The facility has obtained an incidental take permit for its cooling water intake structure(s) from the USFWS or the NMFS.
	□ Yes □ No
	If yes, attach any information submitted in order to obtain that permit, which may be used to supplement the permit application information requirements of paragraph 40 CFR § 125.95(f).
	Attachment:
b.	Is the facility requesting a waiver from application requirements at $40 \ CFR \ \S \ 122.21(r)(4)$ in accordance with $40 \ CFR \ \S \ 125.95$ for any CWIS(s) that withdraw from a man-made reservoir that is stocked and managed by a state or federal natural resources agency or the equivalent?
	□ Yes □ No
	If yes, attach a copy of the most recent managed fisheries report to TPWD, or equivalent.
	Attachment:
c.	There are no federally listed threatened or endangered species or critical habitat designations within the source water body.
	□ True □ False

2. SOURCE WATER BIOLOGICAL DATA (Instructions, Pages 110-111)

New Facilities (Phase I, Track I and II)

Provide responses to all items in this section and stop.

Existing Facilities (Phase II)

- If the answer to 1.b. above was no, provide responses to all items in this section and proceed to Worksheet 11.3.
- If the answer to 1.b. was yes and 1.c. was true, do not complete any items in this section and proceed to Worksheet 11.3.
- If the answer to 1.b. was yes and 1.c. was false, attach a response for any item in this section that is not contained within the most recent TPWD, or equivalent and proceed to Worksheet 11.3.

Attachment:

- a. A list of the data requested at 40 CFR § 122.21(r)(4)(ii) through (vi) that are not available, and efforts made to identify sources of the data.
- b. Provide a list of species (or relevant taxa) in the vicinity of the CWIS and identify the following information regarding each species listed.
 - all life stages and their relative abundance,
 - identification of all species and life stages that would be most susceptible to impingement and entrainment,
 - forage base,
 - · significance to commercial fisheries,
 - · significance to recreational fisheries,
 - · primary period of reproduction,
 - · larval recruitment, and
 - period of peak abundance for relevant taxa.
- c. Data representative of the seasonal and daily activities (e.g., feeding and water column migration) of biological organisms in the vicinity of the CWIS(s).
- d. Identify all threatened, endangered, and other protected species that might be susceptible to impingement and entrainment at the CWIS(s).
- e. Documentation of any public participation or consultation with federal or state agencies undertaken. The following is required for existing facilities only. Include the following information with the above listed attachment.
- f. Identify any protective measures and stabilization activities that have been implemented and provide a description of how these measures and activities affected the baseline water condition in the vicinity of the intake.
- g. A list of fragile species, as defined at 40 CFR § 125.92(m), at the facility. The applicant need only identify those species not already identified as fragile at 40 CFR § 125.92(m).

NOTE: New units at an existing facility are not required to resubmit this information if the cooling water withdrawals for the operation of the new unit are from an existing intake.

WORKSHEET 11.3 ENTRAINMENT

This worksheet is required for all TPDES permit applications that meet the conditions outlined in Technical Report 1.0, Item 12. Complete one copy of this worksheet for each individual CWIS the facility uses or proposes to use.

M	NI	C	Ŧ	רו	
	/V I	o	1	v	

1. APPLICABILITY (Instructions, Page 112)
Is the AIF of the CWIS identified above greater than, or equal to, 125 MGD?
 Yes No If no or the facility has selected CCRS [40 CFR § 125.94(c)(1)] for the impingement mortality compliance method, complete Item 2 and stop here. If yes and the facility is seeking a waiver from application requirements in accordance with 40 CFR § 125.95 for any CWIS(s) that withdraw from a man-made reservoir that is stocked and managed by a state or federal natural resources agency or the equivalent, complete item 2 and stop. If yes and the facility is not seeking a waiver from application requirements in accordance with 40 CFR § 125.95, complete item 2 and provide any required and completed studies listed in item 3. For any required studies in item 3 that are not complete, provide a detailed explanation for the delay and an anticipated schedule for completion and submittal.
2. EXISTING ENTRAINMENT PERFORMANCE STUDIES (Instructions, Page 112)
Attach any previously conducted studies or studies obtained from other facilities addressing technology efficacy, through-facility entrainment survival, and other entrainment studies.
Attachment:
3. FACILITY ENTRAINMENT PERFORMANCE STUDIES (Instructions, Page 112)
 Attach an entrainment characterization study, as described at 40 CFR § 122.21(r)(9). Attachment:
b. Attach a comprehensive feasibility study, as described as 40 CFR § 122.21(r)(10).
Attachment:
c. Attach a benefits valuation study, as described as 40 CFR § 122.21(r)(11).
Attachment:
d. Attach a non-water quality environmental and other impacts study, as described as 40 CFR § $122.21(r)(12)$.
Attachment:
e. Attach a peer review analysis, as described as 40 CFR § $122.21(r)(13)$.

WORKSHEET 12.0 OIL AND GAS EXPLORATION, DEVELOPMENT, AND PRODUCTION WASTEWATER DISCHARGES

This worksheet **is required** for all TPDES permit applications that are subject to Effluent Limitation Guidelines in 40 CFR Part 435.

1.	OPERATIONAL INFORMATION (Instructions, Page 113)
a.	Is the wastewater from an oil and gas exploration, development, or production facility located west of the 98th meridian?
	□ Yes □ No
	If yes, continue to the next question. If no, skip to Item 2 relating to Production/Process Data.
b.	Provide justification for how the wastewater is/will be used for agriculture or wildlife propagation.
2.	PRODUCTION/PROCESS DATA (Instructions, Page 113)
a.	Provide the applicable 40 CFR Part 435 Subpart(s).
b.	Describe if the permit being sought is for discharges from exploration, development, production, or for a combination of more than one of those activities.

Wastestreams Generate	ed		A
Wastestream	Requesting authorization to discharge? (Yes/No)	Volume (MGD)	% of Total Flow
			-
			<u> </u>
Attachment:			
sought.	rill manage wastestreams for w		ization is not being
sought.	ull manage wastestreams for w	vinen disenarge authori	ization is not being
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f. List of chemicals that are in use, or will be used, downhole. Provide the category, concentration used/to be used, and purpose of using the chemical. Attach a safety data sheet for each chemical listed.

Chemicals List

Chemical Name	Concentration (specify units)	Purpose
	 	
	Chemical Name	Chemical Name Concentration (specify units)

Attachment:

g. List of chemicals that are in use, or will be used, to treat the wastewater to be discharged under this authorization. Provide the concentration used/to be used and purpose of using the chemical. Attach a safety data sheet for each chemical listed.

Wastewater Treatment Chemicals List

Chemical Name	Concentration (specify units)	Purpose

3. LABORATORY ACCREDITATION CERTIFICATION (Instructions, Page 114)

Effective July 1, 2008, all laboratory tests performed must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification with the following general exemptions:

- a. The laboratory is an in-house laboratory and is:
 - i. periodically inspected by the TCEQ; or
 - ii. located in another state and is accredited or inspected by that state; or
 - iii. performing work for another company with a unit located in the same site; or
 - iv. performing pro bono work for a governmental agency or charitable organization.
- b. The laboratory is accredited under federal law.
- c. The data are needed for emergency-response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.
- d. The laboratory supplies data for which the TCEQ does not offer accreditation.

Review 30 TAC Chapter 25 for specific requirements. The following certification statement shall be signed and submitted with every application. See Instructions, Page 32, for a list of approved signatories.

I, , certify that all laboratory of 30 TAC Chapter 25, Environmental Testing	tests submitte Laboratory A	ed with this app ccreditation ar	lication meet t nd Certification	he requirements ւ.	}
(Signature)					
4. POLLUTANT ANALYSIS (In	structions	s, Page 114)		
Tables 1, 2, 6, and 7 located in Worksheet 2.0 a must be completed for each outfall and submitt 2.0, are required as applicable.	re required. In ted with this ap	addition, Tabl oplication. The	e 19 below is re remaining tabl	equired and les in Workshee	t
Table 19 for Outfall No.: Samples are (check one): Composites	□ Gral	os			
Pollutant	Sample 1 (mg/L)*	Sample 2 (mg/L)*	Sample 3 (mg/L)*	Sample 4 (mg/L)*	
Calcium					
Potassium					

Sodium

^{*} Indicate units if different from mg/L.





TCEQ Core Data Form

TCEQ	Use	Only	
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For detailed instructions regarding completion of this form, please read the Core Data Form Instructions or call 512-239-5175.

TION 1: Ceneral Information

SECTION	NI: Ge	neral infor	mation									
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		stration or Author					ıbmitte			rogram applicatio	n.)	
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2. Custome	r Referenc	e Number (if iss	ued)			ink to sea		3. Re	gulat	ed Entity Refere	nce Numbe	er (if issued)
CN 6001	128425					N number Registry**		RN	100	213198		
SECTIO	N II: C	ustomer In	formation	<u>1</u>								
4. General C	Customer	Information	5. Effective	Date fo	or Cust	omer In	forma	tion U	pdate	s (mm/dd/yyyy)		
New Cus						omer Inf						Entity Ownership
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		f State (SOS)					IIC A	coui	nts (CPA).		
6. Custome	r Legal Na	me (If an individua	l, print last nam	e first: e	g: Doe, .	John)		<u>If ne</u>	w_Cus	tomer, enter previ	ous Custome	er below:
Shintech	Incorpo	rated										
7. TX SOS/C	_	Number	8. TX State		(11 digits)	,		9. Fe	edera	I Tax ID (9 digits)		Number (if applicable)
00034448	306		1741750	5215				74-	1750	0521	06-509	-5390
11. Type of	Customer	: Corporati	ion		☐ Ir	dividual			Part	tnership: 🗌 Gener	al 🔲 Limited	
		County Federal [☐ State ☐ Other	[□s	ole Prop	rietors			Other:		
12. Number 0-20	of Employ 21-100	yees	251-500		501 and	d higher		13.1		endently Owned	and Opera	ted?
14. Custome	er Role (Pi	oposed or Actual) -	- as it relates to	the Reg	ulated E	ntity liste	d on th	is form.	Pleas	e check one of the	following:	
Owner Occupation	onal Licens	☐ Opera	tor onsible Party			ner & Op untary C	S		icant	Other:		
	56181	-lwy 332 E				-						
15. Mailing		,										
Address:	City	Freeport		St	ate	TX	ZI	P	7754	1	ZIP + 4	
16. Country		formation (if outsi	ide (ISA)							(if applicable)		
		in out of the outer	00 00117						<u></u>	(п арриссые)		
18. Telepho	ne Numbe	г	1	19. Ex	tensior	or Cod	le		T	20. Fax Number	r (if applicab	ile)
(979)23	33-7861			235						() -		***************************************
1 2 7												
SECTIO	N III: F	Regulated E	ntity Info	rmat	ion							
	, -	877 v.		o. ≡								a permit application)
New Reg			to Regulated I							Entity Information		
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	or hor											

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23. Street Address of the Regulated Entity:	301011	, 552 2										
(No PO Boxes)		T						Т				
	City	Freeport		State	TX		ZIP	775	41	ZIF	+4	<u> </u>
24. County	Brazori	a										
<u></u>	En	ter Physical L	.ocatio	n Description	if no s	treet a	address i	is provi	ded.			
25. Description to Physical Location:												
26. Nearest City								State			Nea	rest ZIP Code
Freeport								TX			775	541
27. Latitude (N) In Dec	imal:	28.99228	7		2	28. Loi	ngitude (W) In	Decimal:	-95.	3589	58
Degrees	Minutes		Secor	nds		Degrees			Minutes			Seconds
28		59		32.2332			95			21		32.2488
29. Primary SIC Code (4	digits) 30.	Secondary Si	IC Cod	e (4 digits)	31. Pri		NAICS C	ode		Seconda 6 digits)	ry NAI	CS Code
2821					3252	11						
33. What is the Primary I	Business of	this entity?	(Do not	repeat the SIC or N	IAICS de	escriptio	n.)					
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34. Mailing												
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35. E-Mail Address	•											
36. Teleph	one Number			37. Extension	or Co	ode		3	B. Fax Nu	nber (if	applic	able)
(979)	233-7861			235					() -		
39. TCEQ Programs and I form. See the Core Data Form				write in the perm	nits/regis	stration	numbers	that will	be affected	by the up	dates s	ubmitted on this
☐ Dam Safety	☐ Districts			Edwards Aquifer			Emissions	Invento	ry Air	☐ Indus	strial Ha	zardous Waste
			1_			-						
☐ Municipal Solid Waste	☐ New Sor	urce Review Air	100	OSSF			Petroleum	Storage	Tank	PWS		
	C 04 V		-	Title V Air		+-	Tires			Used	ł Oil	
Sludge	Storm W	rater	$+$ \Box	TIDE V AII		┿╩	11165			□ OSEC	7011	
☐ Voluntary Cleanup	☑ Waste V	Vater	$+$ \Box	Wastewater Agric	culture	+	Water Rig	hts		Othe	r:	
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SECTION IV: Pro			<u>n</u>									
40. Name: Vtesh C	hellappa,	P.E.		-		41. T	itle:	Envir	onment	al Eng	ineer	
42. Telephone Number		t./Code	44. Fa	ax Number		45.	E-Mail A					
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SECTION V: Au		Signature	<u>e</u>	· ·	3,2, -17							
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46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II. Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Shintech Incorporated	Job Title:	Site Manager	
Name(In Print):	Paul Spinks /		Phone:	(979) 233-7861
Signature:	Paul Smil		Date:	6/5/24

ATTACHMENT B - PIP Form TCEQ-20960



Public Involvement Plan Form for Permit and Registration Applications

The Public Involvement Plan is intended to provide applicants and the agency with information about how public outreach will be accomplished for certain types of applications in certain geographical areas of the state. It is intended to apply to new activities; major changes at existing plants, facilities, and processes; and to activities which are likely to have significant interest from the public. This preliminary screening is designed to identify applications that will benefit from an initial assessment of the need for enhanced public outreach.

All applicable sections of this form should be completed and submitted with the permit or registration application. For instructions on how to complete this form, see TCEQ-20960-inst.

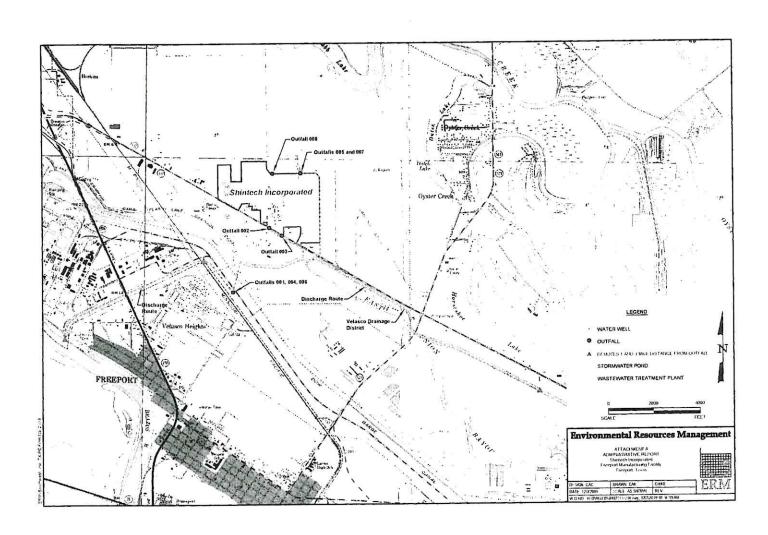
Section 1. Preliminary Screening
New Permit or Registration Application New Activity - modification, registration, amendment, facility, etc. (see instructions)
If neither of the above boxes are checked, completion of the form is not required and does not need to be submitted.
Section 2. Secondary Screening
Requires public notice,
Considered to have significant public interest, and
Located within any of the following geographical locations:
 Austin Dallas Fort Worth Houston San Antonio West Texas Texas Panhandle Along the Texas/Mexico Border Other geographical locations should be decided on a case-by-case basis If all the above boxes are not checked, a Public Involvement Plan is not necessary.
Stop after Section 2 and submit the form.
Public Involvement Plan not applicable to this application. Provide brief explanation.
The criteria for significant public interest are: 1) If the new permit or activity is for an industry which typically has significant public interest—when located in the proposed area and 2) If past permitting actions for this location received significant public interest.—Shintech is applying for a renewal of its permit so does not meet the first criteria. The location of the permit has not garnered past significant public interest so does not meet the second criteria. Based on this, Shintech is not required to develop a Public Involvement Plan.

Section 3. Application Information	
Type of Application (check all that apply): Air	
Water Quality Texas Pollutant Discharge Elimination System (TPDES)	
Texas Land Application State Only Concentrated Animal Feeding Operation (CAFO) Water Treatment Plant Residuals Disposal Permit Class B Biosolids Land Application Permit Domestic Septage Land Application Registration	
Water Rights New Permit New Appropriation of Water	
New or existing reservoir Amendment to an Existing Water Right Add a New Appropriation of Water Add a New or Existing Reservoir	
Add a New or Existing Reservoir Major Amendment that could affect other water rights or the environment Section 4. Plain Language Summary Provide a brief description of planned activities.	

Section 5. Community and Demographic Information
Community information can be found using EPA's EJ Screen, U.S. Census Bureau information, or generally available demographic tools.
Information gathered in this section can assist with the determination of whether alternative language notice is necessary. Please provide the following information.
(City)
(County)
(Census Tract) Please indicate which of these three is the level used for gathering the following information.
City County Census Tract
(a) Percent of people over 25 years of age who at least graduated from high school
(h) Der conite in come for nonvlotion near the angeified location
(b) Per capita income for population near the specified location
(c) Percent of minority population and percent of population by race within the specified location
(d) Percent of Linguistically Isolated Households by language within the specified location
(e) Languages commonly spoken in area by percentage
(f) Community and/or Stakeholder Groups
(g) Historic public interest or involvement

Section 6. Planned Public Outreach Activities
(a) Is this application subject to the public participation requirements of Title 30 Texas Administrative Code (30 TAC) Chapter 39?
Yes No
(b) If yes, do you intend at this time to provide public outreach other than what is required by rule?
Yes No
If Yes, please describe.
If you answered "yes" that this application is subject to 30 TAC Chapter 39, answering the remaining questions in Section 6 is not required. (c) Will you provide notice of this application in alternative languages?
Yes No
Please refer to Section 5. If more than 5% of the population potentially affected by your application is Limited English Proficient, then you are required to provide notice in the alternative language.
If yes, how will you provide notice in alternative languages?
Publish in alternative language newspaper
Posted on Commissioner's Integrated Database Website
Mailed by TCEQ's Office of the Chief Clerk
Other (specify)
(d) Is there an opportunity for some type of public meeting, including after notice?
Yes No
(e) If a public meeting is held, will a translator be provided if requested?
Yes No
(f) Hard copies of the application will be available at the following (check all that apply):
TCEQ Regional Office TCEQ Central Office
Public Place (specify)
Section 7. Voluntary Submittal
For applicants voluntarily providing this Public Involvement Plan, who are not subject to formal public participation requirements.
Will you provide notice of this application, including notice in alternative languages?
What types of notice will be provided?
Publish in alternative language newspaper
Posted on Commissioner's Integrated Database Website
Mailed by TCEQ's Office of the Chief Clerk
Other (specify)







G. L. KIDWELL

Chairman

Area 1

Lake Jackson, Texas

Vice Chairman Area 3 Freeport, Texas T. S. SWINNEA
Secretary
Area 2
Clute, Texas

Velasco Drainage District

Phone (979) 265-4251

Fax (979) 265-7602

E-mail vdd1@swbell.net

November 30, 2006

To Whom It May Concern:

Please be advised that the Shintech Inc., Freeport Facility is authorized to discharge Storm Water Run-off into the Velasco Drainage District waters/watershed.

Regards,

Velasco Drainage District

me mckey

Mel McKey, Superintendent

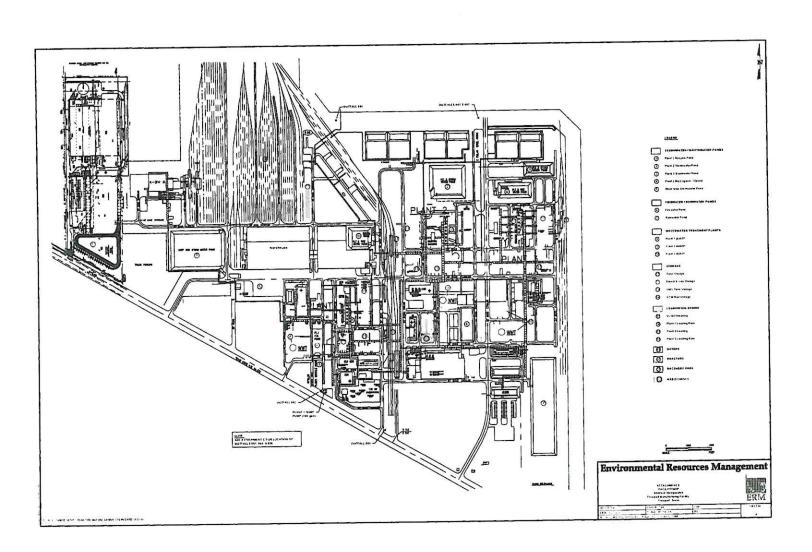
vdd1@swbell.net



Materials List (Continued)

Raw Materials	Intermediate Products	Final Products
Methanol (67-56-1)		
Ammonia Solution (1336-21-6)		
2-Mercaptoethanol (60-24-2)		
Poly (diallyldimethylammonium chloride) (26062-79-3)		
Sulfuric Acid (7664-93-9)		
Sodium Hydroxide (1310-73-2)		
Calcium Stearate (1592-23-0)		
Isobutanol (78-83-1)		
Hydroxypropyl methyl cellulose (9004-65-3)		
Sodium Dichromate (7789-12-00)		





ATTACHMENT G - PROCESS DESCRIPTION

1.0 Process Description

Shintech requests a Texas Pollutant Discharge Elimination System (TPDES) permit renewal for a 3.2 billion pound per year Polyvinylchloride (PVC) manufacturing facility in Freeport, Texas. The facility is composed of three PVC production facilities, each equipped with its own wastewater treatment system. The PVC facilities are referred to herein as PL-1, PL-2 and PL-3.

The Standard Industrial Classification (SIC) Code number which is applicable to facilities that manufacture PVC is 2821 (Plastics Materials and Resins).

PVC Unit

The Primary raw material for the process is Vinyl Chloride Monomer (VCM). Approximately 3.2 billion pounds of VCM are used annually in the 'three PVC plants. VCM is received via pipelines or railcars at the facility. The VCM is introduced to the PVC reactors from a charge tank. The PVC suspension polymerization process produces PVC *in* the form of a slurry by polymerizing VCM in water with reaction initiators and suspending agents. Other raw materials essential to the process are suspending agents, reaction initiators, inhibitors, and organic solvents. The polymerization process is a closed reactor operation with clean wall technology. A closed reactor does not require the reactor to be opened for every batch, minimizing VCM losses to the atmosphere due to reactor openings.

The bulk of the un-reacted VCM is removed by degassing to the gasholder and routed to the VCM recovery process. Recovered VCM gas is compressed, liquefied, and purified for re-use (VCM Recovery Process). The non-condensable gas (non-recovered VCM) in the recovery units is sent to incinerator(s) in each of the three PVC Plants.

The PVC slurry is discharged from the slurry tanks and fed to steam stripping columns. VCM recovered from the steam stripping column is sent to the VCM Recovery Process for re-use. The PVC slurry is subsequently separated into PVC wet cake and water by centrifuges. The PVC wet cake is then dried in a fluidized bed dryer, which generates PVC granules. The dried PVC granules (final product) are screened by sieves to remove oversized granules, and sent to storage silos. Several grades of product are manufactured. The final product is transported to customers by bulk trucks and railcars.

Supporting Facilities

Each of the three PVC Plants have supporting facilities that include bulk truck loading and/or unloading areas, railcar loading and unloading areas, on-site utilities, steam-generating units, incinerator(s) and a wastewater treatment System (WTTS).

Each WWTS consists of a biological treatment system, pH adjustment basin, and final basin. Process wastewater from PL-1 is discharged at Outfall 001, process wastewater from PL-2 is discharged from Outfall 004, and process wastewater from PL-3 is discharged from Outfall 006. Outfalls 002, 003, 005, 007 and 008 discharge only non-process area storm water and potentially minimal amounts of utility waters such as steam condensate.

2.0 Regulatory and Permitting Background

The discharge of treated process wastewater and process area storm water from the organic chemicals manufacturing (PVC) facilities are regulated under the Organic Chemicals, Plastics, and Synthetic Fibers Manufacturing Point Source Category (OCPSF effluent guidelines) at 40

CFR Part 414 Subpart D (Thermoplastic Resins) and Subpart I (Direct Discharge Point Sources That Use End-of-Pipe Biological Treatment).

The OCPSF effluent guidelines should be used to establish effluent limitations for the regulated discharges. Shintech requests that the TCEQ use best professional judgment (BPJ) to provide allowances for pollutants present in utility wastewaters, sanitary wastewater and non-process area storm water discharges at storm water Outfalls 002, 003, 005, and 008 in a manner consistent with calculations in Appendix A of the TCEQ's Fact Sheet associated with the 1997 TNRCC permit that was previously issued to this facility.

Wastewater Generation/Contributions, Collection, Treatment, and Discharge 3.0

Figure 1 presents the Water/Wastewater Flow Balance Diagram for the PL1 PVC facility. The flow rates included on the diagram are estimated long-term averages. As shown in Figure 1, the facility receives water from the Dow canal in Freeport (Raw water is from the Brazos River).

Figure 2 presents the Water/Wastewater Flow Balance Diagram for the PL2 PVC facility. As shown in Figure 2, the facility receives water from the Dow canal in Freeport (Raw water is from the Brazos River) and one on-site well. This well water is used for potable water in the three PVC facilities (PL1, PL-2 and PL-3).

Figure 3 presents the Water/Wastewater Flow Balance Diagram for the PL3 PVC facility. As shown on Figure 3, the facility receives water from the Dow canal in Freeport (Raw water is from the Brazos River).

Proposed effluent characterization data are provided for Outfalls 001, 002, 003,004,005,006,007 and 008 on the application form.

OVERVIEW OF UTILITY WATER I WASTEWATER MANAGEMENT AT EACH OF THE MANUFACTURING UNITS

The utility water/wastewater system in each of the three PVC facilities is very similar. Details of utility water and wastewater management, treatment, and discharge at Shintech's Freeport Manufacturing Facility are as follows.

1. Utility Water System

a. Clarified and Filtered Water The industrial water supply is obtained from the Dow canal (The Brazos River). Silt and suspended solids are removed at the raw water clarifier by using polymer coagulants approved for use by the USEPA for potable water. The clarified water is passed through sand filters. The clarified and filtered water is termed "filtered water" and is used in the facility for process water, cooling water, and other purposes.

Deionized water is obtained from filtered water and is used in the facility for reactor charge water, reactor wash water and other purposes. The deionized water unit consists of carbon absorbers, cation exchangers, degasifiers, anion exchangers, and weak acid cation exchangers. Regeneration for these units is required.

Softened Water

Softened water is obtained from filtered water and is used for the utility boilers and incinerator. The softened water unit consists of cation exchangers. Regeneration for these units is required.

Each of these utility water treatment steps creates wastewater and/or solids for management and/or disposal. The raw water clarifier creates a solids slurry that is disposed of properly at an off-site landfill. Regeneration wastewater from the deionized water unit and from the softener unit is directed to the pH adjustment basin.

d. Cooling Tower Blowdown

Cooling tower blowdown will be non-contact (uncontaminated). All three PVC facilities use a phosphate-based inhibitor.

Attachment J contains MSDS sheets for cooling tower water additive products. This list is not meant to be exclusive or exhaustive, but represents typical products currently used at the facility. Alternate commercially-approved products with the same function may be substituted on an as-needed basis. All products used for cooling tower water additives are used with strict adherence to the manufacturers' directions and the USEPA labeling requirements.

e. Boiler Blowdown

Boiler blowdown will be non-contact (uncontaminated). Boiler water is discharged to the pH adjustment basin(s) as necessary to maintain proper conductivity.

Attachment J also contains MSDS sheets for boiler water additive products. This list is not meant to be exclusive or exhaustive, but represents typical products currently used at the facility. Alternate commercially-approved products with the same function may be substituted on an as-needed basis. All products used for boiler water additives are used with strict adherence to the manufacturers' directions and the USEPA labeling requirements.

f. Incinerator Quench Water

A caustic water solution is used to neutralize hydrochloric acid gasses produced by the incinerator(s). The spent caustic water solution is discharged to the pH adjustment basin for treatment prior to discharge.

g. Reactor Cooling Jacket Water

A chromate solution is used to cool the reactor during the polymerization process. The reactor cooling system is a closed-loop system in which the chromate solution flows from a storage tank to the reactor cooling jacket to a heat exchange system and returning to the storage tank.

Potable Water/Sanitary Wastewater and Laboratory Wastewater.

Potable water for the entire manufacturing facility is obtained from a well at PL-2 facility utility area. Sanitary wastewater generated in each manufacturing unit, administration office, K-Bin, material handling and laboratory wastewaters in each unit are directed to their respective biological wastewater treatment system.

Wastewater Treatment System

The wastewater system in each of the three PVC facilities consists of a hard-pipe collection system, storage tank, and the wastewater stripper. The wastewater is collected in the storage

tank via hard pipe and sent to the wastewater stripper where it is steam stripped of VCM and other similar organics, and then it is sent to the biological treatment system. Stripped VCM goes to the wet VCM storage tank where some of the VCM is recovered for reuse, and the rest is sent to the incinerator(s).

In each PVC unit, the process water from polymerization tank is sent to a slurry stripper followed by a centrifuge. This wastewater treated using the slurry stripper/centrifuge method is then transferred to the unit's recycle biological treatment pond/basin for reuse within the manufacturing process. Any other process wastewater from PVC process is sent to a wastewater stripper, thence to biological treatment system.

If the recycle unit at any of the three plants malfunctions or is otherwise nonoperational (maintenance, repairs, etc.), the OCPSF wastewater flow that would typically be recycled must be treated and discharged with the remaining OCPSF wastewater effluent. Shintech requests that the OCPSF flow allowance at each plant (and associated outfall) account for periodic discharge of recycled wastewater streams.

Each wastewater treatment system (WWTS) consists of the following units:

- A) Biological treatment system
- B) pH adjustment basin
- C) Final basin
- A) Biological treatment system

Biological treatment system consists as follows

- A-1) Biological oxidation unit using activated sludge
- A-2) Biological wastewater clarifier
- A-3) Sludge dewatering system
- A-1) Biological Oxidation Unit Using Activated Sludge

The biological oxidation unit receives the following wastewater:

- a) Process wastewater
- b) Storm water from process areas
- c) Sanitary wastewater

The origins of the various process wastewater streams that contribute to the biological oxidation unit are as follows:

- a) Reactor washing water/rinsate
- b) Water that comes into contact with manufacturing processes, such as pump seal water.

These waste streams are fed first to the wastewater stripping system. After stripping, most of the VC gas is removed and recycled to the process. The wastewater from the stripper is then sent to the biological oxidation unit.

Sanitary wastewater is fed directly to the biological oxidation unit.

The process area storm water from the curbed concrete pads, which is potentially contaminated with process-related materials, is collected and sent directly to the biological treatment system.

A-2) Biological wastewater Clarifier

The biological clarifier receives effluent from the biological oxidation unit. Biosolids are allowed to settle out, and the underflow is sent to the sludge dewatering system for additional treatment prior to recirculation through the biological treatment system. Clear water produced by the clarifier is discharged to the Final Basin for secondary clarification final treatment.

A-3) Sludge Dewatering System

Sludge removed by the biological wastewater clarifier is sent to the sludge dewatering system. The water from the sludge dewatering system is recovered and recycled to the biological treatment system. All sludge will be disposed of properly outside landfill.

B) pH Adjustment Basin

The pH adjustment basin receives the regeneration wastewater of the deionized water unit. Also, cooling tower blowdown, quenchwater from incinerator(s) and boiler blowdown is routed to the basin for pH adjustment, and then it is discharged to the final basin for clarification.

C) Final Basin for Settling/Final Clarification

The final basin receives the following wastewater:

- a) Treated wastewater from the biological treatment system
- b) Utility wastewater from the pH adjustment basin

D) Multimedia Filters

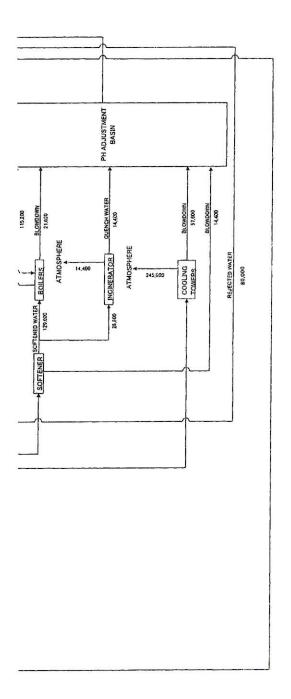
Water from the final basin passes through multimedia filters before discharge. The filters consist of anthracite, sand and quarts, before discharge.

The above effluent is discharged to Outfall 001 (PL-1), Outfall 004 (PL2) and Outfall 006 (PL-3).

4. Intermittent Utility Wastewaters

Intermittent utility wastewaters are *de minimus* in volume and many are generated infrequently. These utility waters will most often be discharged via one of the process wastewater outfalls 001, 004 or 006; however, they may also be present in the storm water outfalls 002, 003, 005, 007 or 008. The waters may include, but are not limited to, the following:

- General facility wash water (such as facility washdown water, irrigation water, and dust control water)
- Steam trap condensate
- Safety shower and eye wash station water
- Fire fighting system test water
- Pump bearing cooling water
- Air conditioning condensate



ed in dikes and pumped to the

is, light industrial areas will be portion of this storm water will water clarifier.) Storm water ischarged through Outfall 002, bitches; thence to East Union rt Harbor Channel; thence to the lasin. Storm water collected in the ents where the reservoir

contained in Worksheet 7.0.

FIGURE-2 PLANT. JER/WASTEWATER FLOW DIAGRAM (UNIT: GPD)

(

ATTACHMENT I – ADDITIONAL OUTFALL WASTESTREAM CONTRIBUTIONS

Wastestream Contributions

Outfall No.: 004

Contributing Wastestreams	Volume (MGD)	% of Total Flow
OCPSF Process Wastewater	0.756	74
Utility Wastewaters (Cooling Tower Blowdown, Incinerator Blowdown and Quench, Boiler Blowdown, De-ionized Water Unit Blowdown, Reactor Cooling Jacket Blowdown, and Water Softener Unit Blowdown)	0.266	25
Sanitary Wastewater	0.014	2
Storm Water	Variable	De Minimis

Outfall No.: 005

Volume (MGD)	% of Total Flow
Variable	N/A
De Minimis	N/A
	Variable

Outfall No.: 006

Contributing Wastestreams	Volume (MGD)	% of Total Flow	
OCPSF Process Wastewater	0.427	53	
Utility Wastewaters (Cooling Tower Blowdown, Incinerator Blowdown and Quench, Boiler Blowdown, De-ionized Water Unit Blowdown, Reactor Cooling Jacket Blowdown, and Water Softener Unit Blowdown)	0.371	46	
Sanitary Wastewater	0.014	1.	

Contributing Wastestreams	Volume (MGD)	% of Total Flow
Storm Water	Variable	De Minimis

Wastestream Contributions

Outfall No.: 007

Contributing Wastestreams	Volume (MGD)	% of Total Flow	
Storm Water	Variable	N/A	
Steam Condensate	De Minimis	N/A	

Outfall No.: 008

Contributing Wastestreams	Volume (MGD)	% of Total Flow		
Storm Water	Variable	N/A		
Steam Condensate	De Minimis	N/A		

ATTACHMENT J – COOLING TOWER ADDITIVES SUMMARY TABLE AND SAFETY DATA SHEETS

Cooling Tower Additives Summary Table

Additive Name	Affected Outfalls	Manufacturer's Product Identification Number	Product Intended Use	Chemical Composition	Classification	Half- Life	Frequency of Use	Toxicity	Concentration in Waste stream
Chlorine (Cl2) Gas	001, 004, 006	N/A	Biocide	Chorine (7782-5-05)	Persistent	1.3-5 hrs	150 lbs per 3 Days to maintain .24 ppm	96 hr LC50 fish – 14 mg/L	0%
Sulfuric Acid	001, 004, 006	N/A	pH Control	Sulfuric Acid (7664- 93-9)	Not persistent	Not Avail able	As needed to maintain pH 8.2-8.6	None if neutralized	0%
Kurita S-7630	001, 004, 006	N/A	Corrosion Inhibitor	Phosphonic Acid (No CAS) Zinc Chloride (7646-85-7) Hydrochloric Acid (7647- 01-0)	Not Persistent	Not Avail able	As needed to maintain a residual of 60-80 ppm	LC (50) Killifish 48 hr: >320 mg/L	0%
Kurita F-5110	001, 004, 006	N/A	Biocide	5-Chloro-2-methyl-4- isothiazoline-3-one (No CAS) 2-methyl-4-isothiazoline- 3-one (No CAS) Magnesium Chloride (No CAS) Magnesium Nitrate (No CAS)	Not Persistent	Not Avail able	Slug dose once per month of 100 mg per liter of CT water	See attached SDS	0%
Kurita S-6000R	001, 004, 006	N/A	Corrosion /Scale Inhibitor	Zinc Chloride (7646-85-7)	Not Persistent	Not Avail able	Only at Shutdown during passivation	See attached SDS	0%
Kurita P-3700	001, 004, 006	N/A	Corrosion /Scale Inhibitor	Sodium Hexametaphosphate (CAS not disclosed)	Not Persistent	Not Avail able	Only at Shutdown during passivation	See attached SDS	0%
Kurita T-8800	001, 004, 006	N/A	Scale Inhibitor	No Hazardous Constituents Disclosed	Persistent	Not Avail able	Only at Shutdown during passivation	See attached SDS	0%

ATTACHMENT J – COOLING TOWER ADDITIVES SUMMARY TABLE AND SAFETY DATA SHEETS

Cooling Tower Additives Summary Table

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Sulfuric Acid	001, 004, 006	N/A	pH Control	Sulfuric Acid (7664- 93-9)	Not persistent	Not Avail able	As needed to maintain pH 8.2-8.6	None if neutralized	0%
Kurita S-7630	001, 004, 006	N/A	Corrosion Inhibitor	Phosphonic Acid (No CAS) Zinc Chloride (7646-85-7) Hydrochloric Acid (7647- 01-0)	Not Persistent	Not Avail able	As needed to maintain a residual of 60-80 ppm	LC (50) Killifish 48 hr: >320 mg/L	0%
Kurita F-5110	001, 004, 006	N/A	Biocide	5-Chloro-2-methyl-4- isothiazoline-3-one (No CAS) 2-methyl-4-isothiazoline- 3-one (No CAS) Magnesium Chloride (No CAS) Magnesium Nitrate (No CAS)	Not Persistent	Not Avail able	Slug dose once per month of 100 mg per liter of CT water	See attached SDS	0%
Kurita S-6000R	001, 004, 006	N/A	Corrosion /Scale Inhibitor	Zinc Chloride (7646-85-7)	Not Persistent	Not Avail able	Only at Shutdown during passivation	See attached SDS	0%
Kurita P-3700	001, 004, 006	N/A	Corrosion /Scale Inhibitor	Sodium Hexametaphosphate (CAS not disclosed)	Not Persistent	Not Avail able	Only at Shutdown during passivation	See attached SDS	0%
Kurita T-8800	001, 004, 006	N/A	Scale Inhibitor	No Hazardous Constituents Disclosed	Persistent	Not Avail able	Only at Shutdown during passivation	See attached SDS	0%



Safety Data Sheet

Chlorine

WestAir Gases & Equipment, Inc. 2505 Congress St. San Diego, CA 92110 619-239-7571 http://westairgases.com

Emergency Contact (24hrs, 7 days a week): Chemtrec #1-800-424-9300

Section 1: Product and Company Identification

WestAir Gases & Equipment, Inc. 2505 Congress St. San Diego, CA 92110 619-239-7571 http://westairgases.com

Product Code: Chlorine

Section 2: Hazards Identification



Hazard Classification: Acute Aquatic Toxicity (Category 1) Acute Gas Inhale Toxicity (Category 2) Corrosive To Metal (Category 1)

Eye Effects (Category 2.A)
Gases Under Pressure
Oxidizing Gas (Category 1)
Skin Corrosion (Category 2)

Specific target organ toxicity (Single Exposure) (Category 3)

Hazard Statements:

Causes serious eye irritation
Causes skin irritation
Contains gas under pressure; may explode if heated
Fatal if inhaled
May be corrosive to metals
May cause or intensify fire; oxidizer
May cause respiratory irritation;

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Date of Preparation: 07/11/2023 14:18:48

Precautionary Statements

Prevention:

Wash thoroughly after handling.

Wear eye protection/face protection.

[In case of inadequate ventilation] wear respiratory protection.

Keep and store away from clothing and combustible materials.

Do not breathe dust/fume/gas/mist/ vapors/spray...

Keep reduction valves/valves and fittings free from oil and grease.

Use only outdoors or in a well-ventilated area.

Keep only in original container.

Response:

Immediately call a poison center or doctor.

If on skin: Wash with plenty of water.

In case of fire: Stop leak if safe to do so.

Absorb spillage to prevent material damage.

Specific treatment is urgent.

If swallowed: Rinse mouth. Do NOT induce vomiting.

Take off contaminated clothing and wash it before reuse.

If skin irritation occurs: Get medical advice/attention.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

Storage:

Store in a well-ventilated place. Keep container tightly closed.

Protect from sunlight.

Store locked up.

Store in corrosive resistant container with a resistant inner liner.

Disposal:

Dispose of contents and/or container in accordance with applicable regulations.

Section 3: Composition/Information on Ingredients

CAS # 7782-50-5

Chemical Substance	Chemical Family	Trade Names
CHLORINE	Halogens	CHLORINE MOLECULAR; DIATOMIC CHLORINE; DICHLORINE; MOLECULAR CHLORINE; UN 1017; CI2

Section 4: First Aid Measures

Skin Contact	Eye Contact	Ingestion	Inhalation	Note to Physicians
Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get immediate medical attention. Thoroughly clean and dry contaminated clothing before reuse. Destroy contaminated shoes.	Immediately flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.	Not likely route of exposure.	If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.	For inhalation, consider oxygen. Avoid gastric lavage or emesis.

WestAir Gases & Equipment, Inc.

page 2 of 6

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Section 5: Fire Fighting Measures

Suitable Extinguishing Media	Products of Combustion	Protection of Firefighters
Non-flammable. Use appropriate extinguishing media for surrounding fire.	Non-flammable	 Full-body encapsulating chemical protective suit with positive pressure self-contained breathing apparatus Non-flammable.

Section 6: Accidental Release Measures

Personal Precautions	Environmental Precautions	Methods for Containment
area and deny entry. Ventilate closed spaces	Avoid contact with combustible materials.	Stop leak if possible without personal risk. Reduce vapors with water spray. Dig holding area such as lagoon, pond or pit for containment. Trap spilled material at bottom in deep water pockets, excavated holding areas or within sand bag barriers.

Methods for Cleanup	Other Information
Collect runoff for disposal as potential hazardous waste. Dike for later disposal. Absorb with sand or other non-combustible material. Add an alkaline material (lime, crushed limestone, sodium bicarbonate, or soda ash). Add an alkaline material (lime, crushed limestone, sodium bicarbonate, or soda ash). Absorb with activated carbon. Collect spilled material using mechanical equipment.	Notify Local Emergency Planning Committee and State Emergency Response Commission for release greater than or equal to RQ (U.S. SARA Section 304). If release occurs in the U.S. and is reportable under CERCLA Section 103, notify the National Response Center at (800)424-8802 (USA) or (202)426-2675 (USA).

Section 7: Handling and Storage

Handling	Storage
Notify State Emergency Response Commission for storage or use at amounts greater than or equal to the TPQ (U.S. EPA SARA Section 302). SARA Section 303 requires facilities storing a material with a TPQ to participate in local emergency response planning (U.S. EPA 40 CFR 355.30).	Store and handle in accordance with all current regulations and standards. Protect from physical damage. Keep separated from incompatible substances. Store outside or in a detached building.

Section 8: Exposure Controls/Personal Protection

Exposure Guidelines

CHLORINE: 1 ppm (3 mg/m3) OSHA ceiling 0.5 ppm (1.5 mg/m3) OSHA TWA (vacated by 58 FR 35338, June 30, 1993) 1 ppm (3 mg/m3) OSHA STEL (vacated by 58 FR 35338, June 30, 1993) 0.5 ppm ACGIH TWA 1 ppm ACGIH STEL 0.5 ppm (1.45 mg/m3) NIOSH recommended ceiling 15 minute(s)

Engineering Controls

Handle only in fully enclosed systems.

Eye Protection	Skin Protection	Respiratory Protection
Wear splash resistant safety goggles with a face shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.	Wear appropriate chemical resistant clothing.	Full-body encapsulating chemical protective suit with positive pressure self-contained breathing apparatus

General Hygiene considerations

- Avoid breathing vapor or mist
- Avoid contact with eyes and skin
- Wash thoroughly after handling and before eating or drinking

Section 9: Physical and Chemical Properties

Physical State	Appearance	Color	Change in Appearance	Physical Form	Odor	Taste
Gas	Yellow or green	Yellow or green	N/A	Gas	Distinct odor, irritating odor	N/A

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Flash Point	Flammability	Partition Coefficient	Autoignition Temperature	Upper Explosive Limits	Lower Explosive Limits
Not combustible (does not burn). However, chlorine is a strong oxidizing agent and is a serious fire risk.	Not available	Not available	Not available	Not available	Not available

Boiling Point	Freezing Point	Vapor Pressure	Vapor Density	Specific Gravity	Water Solubility	рH	Odor Threshold	Evaporation Rate	Viscosity
-29.1 F (-33.97 C)	-150 F (- 101 C)	5168 mmHg @ 21 C	2.49 (Air=1)	Not applicable	1.46% @ 0 C	Not applicable	0.01 ppm	Not applicable	0.01327 cP @ 20 C

Molecular Weight	Molecular Formula	Density	Weight per Gallon	Volatility by Volume	Volatility	Solvent Solubility
70.906	CI2	3.214 g/L @ 0 C	Not available	100%	Not applicable	Soluble: Alkali

Section 10: Stability and Reactivity

Stability	Conditions to Avoid	Incompatible Materials
Stable at normal temperatures and pressure. It reacts with water to form a weak, highly corrosive solutions of hydrochloric acid and hypochlorous acid, which can decompose to hydrochloric acid and oxygen.	Stable at normal temperatures and pressure. It reacts with water to form a weak, highly corrosive solutions of hydrochloric acid and hypochlorous acid, which can decompose to hydrochloric acid and oxygen.	Combustible materials, bases, metals, halogens, metal salts, reducing agents, amines, metal carbide, metal oxides, oxidizing materials, halo carbons, acids

Hazardous Decomposition Products	Possibility of Hazardous Reactions	
Corrosive hydrogen chloride, hydrochloric acid and hypochlorous acid.	Will not polymerize.	

Section 11: Toxicology Information

Acute Effects

Oral LD50	Dermal LD50	Inhalation
0.86 mg/L (1 hr-	Not	Burns, chest pain, difficulty breathing, headache, dizziness, hyperactivity, emotional disturbances, bluish skin
Rat)	available	color, lung damage, death

Eye Irritation	Skin Irritation	Sensitization
Burns	Burns	Acute toxicity, Category 2, inhalation; H330: Fatal if inhaled. Skin irritation, Category 2; H315: Causes skin irritation. Eye irritation, Category 2; H319: Causes serious eye irritation. Specific Target Organ Toxicity (single exposure), Category 3; H335: May cause respiratory irritation.

Chronic Effects

Carcinogenicity	Mutagenicity	Reproductive Effects	Developmental Effects	
ACGIH: A4 -Not Classifiable as a Human Carcinogen	the same of the last of the la	Available.	No data	

Section 12: Ecological Information

Fate and Transport

Eco toxicity	Persistence / Degradability	Bioaccumulation / Accumulation	Mobility in Environment
Fish toxicity: LC50 Fathead minnow: 0.07 to 0.15 (96 hour); 390 ug/L 96 hour(s) LC50 (Mortality) Orangethroat darter (Etheostoma spectabile) Invertibrate toxicity: 637.5 ug/L 1 hour(s) LC50 (Mortality) Pacific oyster (Crassostrea gigas) Algal toxicity: 50-1000 ug/L 23 hour(s) (Population) Algae,phytoplankton,algal mat (Algae)	The atmospheric half-life and lifetime of this material due to photolysis is estimated at 10 and 14 minutes, respectively. The half-life of free resid	Not expected	Not available

Phyto toxicity: Not available
Other toxicity: 20 ug/L 96 day(s) (Growth) Watermilfoil (Myriophyllum spicatum)

Section 13: Disposal Considerations

Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001. Dispose in accordance with all applicable regulations.

Section 14: Transportation Information

U.S. DOT 49 CFR 172.101

Number	Class or Division	Group	Requirements	Passenger Aircraft or Railcar Quantity	Only Quantity	Additional Shipping
UN1017	2.3	Not	22.0		Limitations	Description
		applicable	2.3, 8	Forbidden	Forbidden	Toxic-Inhalatio Hazard Zone B
		Division	Division UN1017 2.3 Not	UN1017 2.3 Not 2.3; 8	UN1017 2.3 Not 2.3; 8 Forbidden	UN1017 2.3 Not 2.3; 8 Forbidden Control Requirements Railcar Quantity Limitations University Limitations Control Contr

Canadian Transportation of Dangerous Goods

Shipping Name	UN Number	Class	Packing Group / Risk Group
Chlorine	UN1017	2.3; 8	Not applicable

Section 15: Regulatory Information

U.S. Regulations

CERCLA Sections	SARA 355.30	SARA 355.40
	100 LBS TPQ	

SARA 370,21

Acute	Chronic	Fire	Reactive	Sudden Release
Yes		No		Yes

SARA 372.65

CHLORINE

OSHA Process Safety

1500 LBS TQ

State Regulations

CA Proposition 65 Not regulated.

Canadian Regulations

WHMIS Classification A, D1A, E

National inventory Status

US Inventory (TSCA)	TSCA 12b Export Notification	Canada Inventory (DSL/NDSL)
Listed on inventory.	Not listed.	Not determined.
		Trot determined.

Section 16: Other Information

NFPA Rating

HEALTH=4 FIRE=0 REACTIVITY=0 SPECIAL=OX

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name

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1.2 Relevant identified uses of the substance or mixture and uses advised against

no data available

1.3 Details of the supplier of the safety data sheet

Company

Eco Services Operations Corp.

2002 Timberloch Place

Suite 300

The Woodlands, TX 77380 Phone number: (844) 812-1812

1.4 Emergency telephone

FOR EMERGENCIES INVOLVING A SPILL, LEAK, FIRE, EXPOSURE OR ACCIDENT CONTACT: CHEMTREC 800-424-9300 within the United States and Canada, or 703-527-3887 for international collect calls.

SECTION 2: Hazards identification

Although OSHA has not adopted the environmental portion of the GHS regulations, this document may include information on environmental effects.

2.1 Classification of the substance or mixture

HCS 2012 (29 CFR 1910.1200)

Skin corrosion, Category 1A Serious eye damage, Category 1

Specific target organ systemic toxicity - single

exposure, Category 3, Respiratory system

H314: Causes severe skin burns and eye damage.

H318: Causes serious eye damage. H335: May cause respiratory irritation.

2.2 Label elements

HCS 2012 (29 CFR 1910.1200)

Pictogram





Signal Word

Danger

Hazard Statements:

H314 H335 Causes severe skin burns and eye damage.

May cause respiratory irritation.

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Precautionary Statements:

Prevention

P261

P264

P271

P280

Response

P304 + P340

P301 + P330 + P331

P303 + P361 + P353

P305 + P351 + P338

P310 P363

Storage

P403 + P233 P405

Disposal P501

Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

Wash skin thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/ protective clothing/ eye protection/ face protection.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Remove/ Take off immediately all contaminated

clothing. Rinse skin with water/ shower.

IF INHALED: Remove victim to fresh air and keep at rest in a position

comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/ physician.

Wash contaminated clothing before reuse.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards which do not result in classification

Water Reactive

H402: Harmful to aquatic life.

H411: Toxic to aquatic life with long lasting effects.

SECTION 3: Composition/information on ingredients

3.1 Substance

Not applicable, this product is a mixture.

3.2 Mixture

Hazardous Ingredients and Impurities

Chemical Name	Identification number CAS-No.	Concentration [%]	
Sulfuric acid	7664-93-9	99	

Non Hazardous Ingredients and Impurities

Chemical Name	Identification number CAS-No.	Concentration [%]
Water	7732-18-5	<= 1

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SECTION 4: First aid measures

4.1 Description of first-aid measures

If inhaled : Remove victim from exposure and then have him lie down in the recovery

position.

In case of shortness of breath, give oxygen.

If victim has stopped breathing:

administer CPR (cardio-pulmonary resuscitation)

Immediate medical attention is required.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 30

minutes.

Remove all contaminated apparel under the shower.

Wash off with plenty of water.

Do not attempt to neutralize with chemical agents

Immediate medical attention is required.

Eye contact : In case of contact, immediately flush eyes with plenty of water for at least 30

minutes

Immediate medical attention is required.

Ingestion : Do NOT induce vomiting.
If victim is conscious:

Rinse mouth with water.

Do not leave the victim unattended.

Risk of product entering the lungs on vomiting after ingestion.

Lay victim on side.

Never give anything by mouth to an unconscious person.

Immediate medical attention is required.

4.2 Most important symptoms and effects, both acute and delayed

Risks : Inhalation of product may aggravate existing chronic respiratory problems

such as asthma, emphysema or bronchitis Skin contact may aggravate existing skin disease

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : All treatments should be based on observed signs and symptoms of distress

in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

SECTION 5: Firefighting measures

Flash point : Not applicable

Autoignition temperature : no data available

Flammability / Explosive limit : no data available

5.1 Extinguishing media

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Suitable extinguishing media : Dry chemical

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting : Not combustible.

Strong oxidizer. Contact with other material may cause fire.

Reacts violently with water.

Corrosive or suffocating vapors are released.

On combustion or on thermal decomposition (pyrolysis), releases:

Sulfur oxides

Sulfuric acid reacts with metals, especially when diluted with water. This reaction produces highly flammable hydrogen gas, which may explode when

ECOSERVICES

ignited, especially in confined spaces.

5.3 Advice for firefighters

Special protective equipment for fire-fighters : Firefighters should wear NIOSH/MSHA approved self-contained breathing

apparatus and full protective clothing. Acid-resistant protective clothing

Specific fire fighting methods : Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions, protective equipment

and emergency procedures

The product must only be handled by specifically trained employees.

6.2 Environmental precautions

Environmental precautions

Do not flush into surface water or sanitary sewer system.

Collect contaminated fire extinguishing water separately. This must not be

discharged into drains.

Spills may be reportable to the National Response Center (800-424-8802) and

to state and/or local agencies

Site should have a spill plan to ensure that adequate safeguards are in place

to minimize the impact of episodic releases.

6.3 Methods and materials for containment and cleaning up

Recovery : Stop leak if safe to do so.

Dam up with sand or inert earth (do not use combustible materials).

Decontamination / cleaning : Pump or collect any free spillage into an appropriate closed container. (see

Section 7: Handling and Storage)

Exercise caution during neutralization as considerable heat may be generated

Carefully neutralize the remainder using:

soda ash

Soak up with inert absorbent material.

Scrape up.

Keep in suitable, closed containers for disposal.

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6.4 Reference to other sections

Reference to other sections

: 7. HANDLING AND STORAGE

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures

Do not breathe mist or vapors.

Avoid contact with the skin and the eyes.

When diluting, always add the product to water. Never add water to the

product.

Reacts violently with:

bases.

Hygiene measures

: Personal hygiene is an important work practice exposure control measure and

the following general measures should be taken when working with or

handling this materials:

1) Do not store, use, and/or consume foods, beverages, tobacco products, or

cosmetics in areas where this material is stored.

2) Wash hands and face carefully before eating, drinking, using tobacco,

applying cosmetics, or using the toilet.

3) Wash exposed skin promptly to remove accidental splashes or contact with

material.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Recommended

Keep tightly closed.

Store in an area:

dry

well-ventilated

diked

Storage stability

Storage temperature

< 104 °F (< 40 °C)

Other data

Corrosion rates increase at elevated temperatures.

7.3 Specific end use(s)

no data available

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SECTION 8: Exposure controls/personal protection

Introductory Remarks: These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Assistance with selection, use and maintenance of worker protection equipment is generally available from equipment manufacturers.

8.1 Control parameters

Ingredients with workplace control parameters

Value type	Value	Basis
TWA	1 mg/m3	NIOSH
TWA	0.2 mg/m3	ACGIH
Pulmonary function, Class	ification refers to sulfur	
TWA	1 mg/m3	OSHA Z-1
TWA	1 mg/m3	OSHA Z-1-A
TWA	0.2 mg/m3	SOLVAY
	TWA TWA Form of exposure: Thorac Pulmonary function, Class strong inorganic acid mists TWA TWA	TWA 1 mg/m3 TWA 0.2 mg/m3 Form of exposure: Thoracic fraction Pulmonary function, Classification refers to sulfur strong inorganic acid mists, Suspected human ca TWA 1 mg/m3 TWA 1 mg/m3

NIOSH IDLH (Immediately Dangerous to Life or Health Concentrations)

Ingredients	CAS-No.	Concentration
Sulfuric acid	7664-93-9	15 milligram per cubic meter

8.2 Exposure controls

Control measures

Engineering measures : Where engineering controls are indicated by use conditions or a potential for

excessive exposure exists, the following traditional exposure control techniques may be used to effectively minimize employee exposures:

Effective exhaust ventilation system

Personal protective equipment

Respiratory protection : When respirators are required, select NIOSH/MSHA approved equipment

based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industrial recommendations.

Recommended Filter type: Acidic gas/vapor type

Eye protection : Eye and face protection requirements will vary dependent upon work

environment conditions and material handling practices. Appropriate ANSI Z87 approved equipment should be selected for the particular use intended

for this material.

Eye contact should be prevented through the use of:

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Wear protective eye glasses for protection against liquid splashes (goggles)

Skin and body protection : Wear as appropriate:

Face-shield

Acid-resistant protective clothing

Acid resistant boots.

Hygiene measures : Personal hygiene is an important work practice exposure control measure and

the following general measures should be taken when working with or

handling this materials:

1) Do not store, use, and/or consume foods, beverages, tobacco products, or

cosmetics in areas where this material is stored.

2) Wash hands and face carefully before eating, drinking, using tobacco,

applying cosmetics, or using the toilet.

3) Wash exposed skin promptly to remove accidental splashes or contact with

material.

Protective measures : Ensure that eyewash stations and safety showers are close to the workstation

location.

SECTION 9: Physical and chemical properties

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product information phone number in Section 1 for its exact specifications.

9.1 Information on basic physical and chemical properties

Appearance : Form : oily

Physical state: liquid

Color: colorless

Odor : odorless

Odor Threshold : no data available

pH : 1.0 (1 % (m/v))

Boiling point/boiling range : 563 - 626 °F (295 - 330 °C) (760 mmHg (1,013.25 hPa))

Flash point : Not applicable

Evaporation rate (Butylacetate = 1) : no data available

Flammability (solid, gas) : no data available

Flammability (liquids) : no data available

Flammability / Explosive limit : no data available

Autoignition temperature : no data available

Vapor pressure : < 1 mmHg (1.33 hPa) (104 °F (40 °C))

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Vapor density : no data available

Density : Relative density : 1.84 (61 °F (16 °C))

Solubility : Water solubility :

miscible

Partition coefficient: n-octanol/water : no data available

Thermal decomposition : no data available

Viscosity : no data available

Explosive properties : no data available

Oxidizing properties : no data available

9.2 Other information

Molecular weight : 98.08 g/mol

Reactions with water / air : Reacts violently with water.

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Chemical stability : Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Contact with metals may evolve flammable hydrogen gas, especially in confined spaces. Hazardous polymerization does not occur.

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Materials to avoid : Water

Strong reducing agents Halogenated compounds

Bases metals

Nitrogen oxides (NOx)

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10.6 Hazardous decomposition products

Decomposition products

On combustion or on thermal decomposition (pyrolysis), releases:

Sulfur oxides

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Acute oral toxicity

Sulfuric acid

LD50 Oral: 2,140 mg/kg - Rat

Gavage

Published data

Acute inhalation toxicity

Sulfuric acid

LC50 - 4 h (aerosol): 0.375 mg/l - Rat , male and female

Toxicity secondary to corrosive effects at site of contact.

Published data

LC50 - 4 h (aerosol): 0.85 mg/l - Mouse , male and female

Toxicity secondary to corrosive effects at site of contact.

Published data

(Mist) Humans

Symptoms: Potential health effects, Respiratory disorders, Symptoms may be

delayed., Cough, Risk of delayed pulmonary edema.

Effects of breathing high concentration of respirable particles may include:

May cause irritation of respiratory tract.

Lung irritation Published data

Acute dermal toxicity

Sulfuric acid

Not classified as hazardous for acute toxicity according to GHS

Not applicable

Corrosive

internal evaluation

Acute toxicity (other routes of administration)

no data available

Skin corrosion/irritation

Skin irritation

Sulfuric acid

Causes severe burns.

Published data

Serious eye damage/eye irritation

Eye irritation

Sulfuric acid

Risk of serious damage to eyes.

Published data

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Respiratory or skin sensitization

Sensitization

Sulfuric acid : Local lymph node assay

Not applicable Corrosive

The product is not considered to be sensitizing by skin contact.

internal evaluation

Mutagenicity

Genotoxicity in vitro

Sulfuric acid : Mutagenicity (Salmonella typhimurium - reverse mutation assay)

with and without metabolic activation

negative

Method: OECD Test Guideline 471

Published data

Chromosome aberration test in vitro Strain: Chinese hamster ovary cells with and without metabolic activation

positive

Effects observed are due to the reduced pH in the test medium.

Published data

Product is not considered to be genotoxic

Genotoxicity in vivo : no data available

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Carcinogenicity Carcinogenicity Sulfuric acid

inhalation (mist)

Animal studies Unpublished reports Published data No carcinogenic effects have been observed

Note: IARC Classification: Group 1 mists from strong inorganic acids

IARC and NTP classified "occupational exposure to strong inorganic acid mists containing sulfuric acid" as a known human carcinogen. ACGIH has also classified "sulfuric acid as contained in strong inorganic acid mists" as a suspected human carcinogen. There is still a debate on the studies reviewed by these agencies. We disagree with IARC's conclusion, in that more recent studies have failed to find association between "occupational exposure to strong inorganic acid mist containing sulfuric acid." and laryngeal or lung cancer. In fact, in 2012 IARC revised their classification dropping the "containing sulfuric acid" wording. Lifetime animal studies in hamsters, rats, and guinea pigs were conducted by the EPA and NIEHS and were all negative. However, they were not formally published by the agencies and not considered by IARC or NTP.

Ingredients	CAS-No.	Rating	Basis	
Strong inorganic acid mists containing sulfuric acid		Group 1: Carcinogenic to humans		
Strong inorganic acid mists containing sulfuric acid		Suspected human carcinogen	ACGIH	
Strong inorganic acid mists containing sulfuric acid		Known to be human carcinogen	NTP	
Sulfuric acid	7664-93-9	Suspected human carcinogen	ACGIH	

This product does not contain any ingredient designated as probable or suspected human carcinogens by:

OSHA

NTP

IARC

OSHA

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Toxicity for reproduction and development

Toxicity to reproduction / fertility

Sulfuric acid

Effects on fertility fetotoxic effect no observed effect

Developmental Toxicity/Teratogenicity

Sulfuric acid

Rabbit

Application Route: inhalation (mist) NOAEC teratogenicity: 19.3 mg/m3

Method: OECD Test Guideline 414 no teratogenic effects have been observed

Mouse

Application Route: inhalation (mist) NOAEC teratogenicity: 19.3 mg/m3

Method: OECD Test Guideline 414 no teratogenic effects have been observed

Published data

STOT

STOT-single exposure

Sulfuric acid

Routes of exposure: inhalation (mist)
Target Organs: Respiratory Tract
Toxicology Assessment

May cause respiratory irritation.

STOT-repeated exposure

Sulfuric acid

Toxicology Assessment

The substance or mixture is not classified as specific target organ toxicant,

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repeated exposure., internal evaluation

Sulfuric acid

inhalation (mist) 28 d - Rat LOAEC: 0.3 mg/m3 Target Organs: Larynx

Method: OECD Test Guideline 412

Symptoms: Local irritation Unpublished reports

inhalation (mist) 78 Weeks - Monkey

LOAEC: 0.38 mg/m3

Target Organs: Respiratory Tract

Symptoms: Local irritation, Respiratory disorders

Published data

Repeated inhalation of aerosols may cause adverse effects on health

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Experience with human exposure

Experience with human exposure: Inhalation

Sulfuric acid

Target Organs: Respiratory Tract

Target Organs: Nose

Symptoms: Burning sensations in the nose and throat.

Breathing difficulties Dental erosion

Mist

At high concentrations:

Irritating to the respiratory system and mucous membranes.

Published data

Carcinogenicity

Sulfuric acid

Teratogenicity

Carcinogenicity classification not possible from current data.

Sulfuric acid

Did not show teratogenic effects in animal experiments.

Aspiration toxicity Aspiration toxicity

Sulfuric acid

Not applicable

SECTION 12: Ecological information

12.1 Toxicity

Aquatic Compartment

Acute toxicity to fish

Sulfuric acid

LC50 - 96 h: 16 - 28 mg/l - Lepomis macrochirus (Bluegill sunfish)

static test

Non neutralized product

pH 3.5 - 3.25 Harmful to fish. Published data

Acute toxicity to daphnia and other aquatic invertebrates.

Sulfuric acid

EC50 - 48 h : > 100 mg/l - Daphnia magna (Water flea)

static test Method: OECD Test Guideline 202

Fresh water

Neutralized product

Not harmful to aquatic invertebrates. (EC50 > 100 mg/L)

Unpublished reports

EC50 - 24 h: 29 mg/l - Daphnia magna (Water flea)

Method: ISO 6341 Non neutralized product Harmful to aquatic invertebrates.

Published data

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Toxicity to aquatic plants

Sulfuric acid : NOEC : 0.13 mg/l - Algae

field study

pH 5.6

Non neutralized product

Published data

ErC50 - 72 h : > 100 mg/l - Desmodesmus subspicatus (green algae)

Growth inhibition

Method: OECD Test Guideline 201

Neutralized product Unpublished reports

Chronic toxicity to fish

Sulfuric acid : NOEC: 0.13 mg/l - 10 Months - Salvelinus fontinalis (brown trout)

flow-through test

pH 5.6 Fresh water

Non neutralized product

Published data

Ecotoxicity assessment

Acute aquatic toxicity

Sulfuric acid : If the product is not neutralized, it may cause adverse effects to aquatic

organisms due to its acidity.

Neutralization will reduce ecotoxic effects.

Chronic aquatic toxicity

Sulfuric acid : If the product is not neutralized, it may cause adverse effects to aquatic

organisms due to its acidity.

12.2 Persistence and degradability

Biodegradability

Biodegradability

Sulfuric acid : Not applicable, inorganic substance

Stability

Stability in water

Sulfuric acid : Product dissociates rapidly to corresponding ions on contact with water.

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water

Sulfuric acid : Not applicable, inorganic substance

Bioconcentration factor (BCF)

Sulfuric acid : Not relevant

internal evaluation

12.4 Mobility in soil

no data available

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12.5 Results of PBT and vPvB assessment

Results of PBT and vPvB assessment

Sulfuric acid

This substance is not considered to be persistent, bioaccumulating, and toxic (PBT)., This substance is not considered to be very persistent and very

bioaccumulating (vPvB).

12.6 Other adverse effects

Environment assessment

Sulfuric acid

Not classified as Dangerous for the Environment

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product Disposal

Advice on Disposal

Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or otherwise different from federal laws and regulations. Consult state and local regulations regarding the proper disposal of this material.

Waste Code

Hazardous Waste - YES

RCRA:

D002 - Corrosive waste - (C) D003 - Reactive waste - (R)

SECTION 14: Transport information

Transportation status: IMPORTANT! Statements below provide additional data on listed transport classification. The listed Transportation Classification does not address regulatory variations due to changes in package size, mode of shipment or other regulatory descriptors.

DOT

14.1 UN number	UN 1830

14.2 Dangerous Good Description UN 1830 SULFURIC ACID, 8, II

14.3 Transport hazard class 8

14.4 Packing group

Packing group 11 Label(s) **ERG No** 137

14.5 Environmental hazards

Marine pollutant

NO

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14.6 Special precautions for user

This product contains one or more ingredients identified as a hazardous substance in Appendix A of 49 CFR 172.101. The product quantity, in one package, which triggers the RQ requirements under 49 CFR for each hazardous substance is shown.

Reportable quantities

: RQ substance: Sulfuric acid

RQ limit for substance: 1,000 lb RQ limit for product: 1,053 lb

TDG

14.1 UN number

UN 1830

14.2 Dangerous Good Description

UN 1830 SULFURIC ACID, 8, II

14.3 Transport hazard class

8

14.4 Packing group

Packing group Label(s) || |8

Label(s) ERG No

137

14.5 Environmental hazards

NO

Marine pollutant

IMDG

14.1 UN number

UN 1830

14.2 Dangerous Good Description

UN 1830 SULPHURIC ACID, 8, II

14.3 Transport hazard class

8

14.4 Packing group

Packing group

11

Label(s) EmS

F-A , S-B

14.5 Environmental hazards

NO

Marine pollutant

14.6 Special precautions for user

For personal protection see section 8.

IATA

14.1 UN number

UN 1830

14.2 Dangerous Good Description

UN 1830 SULPHURIC ACID, 8, II

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14.3 Transport hazard class

8

14.4 Packing group

Packing group II
Label(s): 8
Packing instruction (cargo aircraft) 855
Max net qty / pkg 30.00 L
Packing instruction (passenger aircraft) 851
Max net qty / pkg 1.00 L

14.5 Environmental hazards

Marine pollutant

NO

14.6 Special precautions for user

For personal protection see section 8.

Note The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transportation regulations for hazardous materials, it would be advisable to check their validity with your sales office.

SECTION 15: Regulatory information

15.1 Notification status

United States TSCA Inventory

YES (positive listing)
 On TSCA Inventory

Canadian Domestic Substances List (DSL)

: YES (positive listing)

All components of this product are on the

Canadian DSL

Australia Inventory of Chemical Substances (AICS)

: YES (positive listing)

On the inventory, or in compliance with the

inventory

Japan. CSCL - Inventory of Existing and New Chemical Substances

: YES (positive listing)

On the inventory, or in compliance with the

inventory

Korea. Korean Existing Chemicals Inventory (KECI)

YES (positive listing)

On the inventory, or in compliance with the

inventory

China. Inventory of Existing Chemical Substances in China (IECSC)

: YES (positive listing)

On the inventory, or in compliance with the

inventory

15.2 Federal Regulations

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SARA 311/312 Hazards

Fire Hazard	no
Reactivity Hazard	yes
Sudden Release of Pressure Hazard	no
Acute Health Hazard	yes
Chronic Health Hazard	no

SARA 313

The following components are subject to reporting levels established by SARA

Title III, Section 313:

Sulfuric acid

7664-93-9 99 %

SARA 302

: The following components are subject to reporting levels established by SARA Title III, Section 302:

Title III, Section 302.

Ingredients	CAS-No.	Threshold planning quantity	Remarks
Sulfuric acid	7664-93-9	1000 lb	

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

Ingredients	CAS-No.	Reportable quantity	
Unlisted hazardous wastes - Characteristic of Corrosivity		100 lb	
Unlisted hazardous wastes - Characteristic of Reactivity		100 lb	
Sulfuric acid	7664-93-9	1000 lb	

SARA 304 Reportable Quantity

Ingredients	CAS-No.	Reportable quantity
Sulfuric acid	7664-93-9	1000 lb

SARA 302 Reportable Quantity

SARA 302 Reportable Quantity				
Ingredients	CAS-No.	Reportable quantity		
Sulfuric acid	7664-93-9	1000 lb		

15.3 State Regulations

California Prop 65 : WARNING! This product contains a chemical known in the State of California

to cause cancer.

Strong inorganic acid mists containing sulfuric acid

This product does not contain any chemicals known to the State of California

to cause cancer, birth, or any other reproductive defects.

SECTION 16: Other information

SAFETY DATA SHEET **ECOSERVICES SULFURIC ACID 99%**

Issuing date: 01/13/2022

NFPA (National Fire Protection Association) - Classification

Health Flammability 0 minimal Instability or Reactivity 2 moderate

HMIS (Hazardous Materials Identification System (Paint & Coating)) - Classification

Health 3 serious Flammability 0 minimal Reactivity 2 moderate

Further information

Revision: 2. US (EN)

Date Previous Issue 05/09/2016

Further information Product classified under the US GHS format.

Key or legend to abbreviations and acronyms used in the safety data sheet

TWA 8-hour, time-weighted average

ACGIH American Conference of Governmental Industrial Hygienists

OSHA Occupational Safety and Health Administration WHMIS Workplace Hazardous Materials Information System

NTP National Toxicology Program

IARC International Agency for Research on Cancer

Solvay Acceptable Exposure Limit NIOSH

National Institute for Occupational Safety and Health **NFPA**

National Fire Protection Association

HMIS Hazardous Materials Identification System (Paint & Coating)

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose, and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in another manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.



Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Issue date: 08/09/2021

Revision date: 08/09/2021

Supersedes: 08/09/2021

Version: 1.1

Page 1

SECTION 1: Identification

1.1. Identification

Product form : Mixture

: KURITA S-7630 Name

1.2. Recommended use and restrictions on use

Recommended use : Corrosion Inhibitor, Scale Inhibitor

1.3. Supplier Kurita America Inc. 6600 94th Ave North Minneapolis, MN 55445 - USA

T 866-663-7632

kai sds@kurita-water.com - www.kuritaamerica.com

Emergency telephone number 1.4.

: CHEMTEL, For Chemical Emergency Call 800-255-3924 24hr/day 7days/week Emergency number

Kurita America: 866-663-7633 International: +01-813-248-0585

SECTION 2: Hazard(s) identification

Classification of the substance or mixture 2.1.

GHS US classification

Acute toxicity (inhalation:dust,mist) Category 4

Skin corrosion/irritation Category 1

Serious eye damage/eye irritation Category 1

Germ cell mutagenicity Category 2

Reproductive toxicity Category 2

Specific target organ toxicity (single exposure) Category 1

Specific target organ toxicity (repeated exposure) Category 1

Hazardous to the aquatic environment - Chronic Hazard Category 2

H332 Harmful if inhaled

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

H341 Suspected of causing genetic defects

H361 Suspected of damaging fertility or the unborn child

H370 Causes damage to organs

H372 Causes damage to organs through prolonged or repeated exposure

H411 Toxic to aquatic life with long lasting effects

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)

Precautionary statements (GHS US)









Signal word (GHS US) : Danger

: H314 - Causes severe skin burns and eye damage Hazard statements (GHS US)

H318 - Causes serious eye damage

H332 - Harmful if inhaled

H341 - Suspected of causing genetic defects

H361 - Suspected of damaging fertility or the unborn child

H370 - Causes damage to organs

H372 - Causes damage to organs through prolonged or repeated exposure

H411 - Toxic to aquatic life with long lasting effects

: P201 - Obtain special instructions before use.

P202 - Do not handle until all safety precautions have been read and understood.

P260 - Do not breathe dust/fume/gas/mist/vapors/spray. P261 - Avoid breathing dust/fume/gas/mist/vapors/spray. P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area.

P273 - Avoid release to the environment.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting.

P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse

skin with water/shower.

EN (English US)

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.

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P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. P307+P311 - If exposed: Call a poison center/doctor.

P308+P313 - If exposed or concerned: Get medical advice/attention.

P310 - Immediately call a poison center or doctor.

P312 - Call a poison center or doctor if you feel unwell. P314 - Get medical advice/attention if you feel unwell.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P363 - Wash contaminated clothing before reuse.

P391 - Collect spillage.

P405 - Store locked up.

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name		*****			Product identifier	%	GHS US classification
Hydrochloric acid		_	_		(CAS-No.) 7647-01-0	1 – 10	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Inhalation), H331 Skin Corr. 1A, H314 Aquatic Acute 1, H400
Zine chloride	_				(CAS-No.) 7646-85-7	1 – 10	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1, H314 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Phosphonic acid					(CAS-No) Proprietary		Not classified
Acrylic polymer	****	1000		-	(CAS-No.) Proprietary		Not classified

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison

center/doctor/physician if you feel unwell.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a

physician immediately.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact : Burns.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fine-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

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5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of

: Toxic fumes may be released.

fire

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting

: Do not attempt to take action without suitable protective equipment. Self-contained breathing

apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures

: Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with

skin and eyes.

6.1.2. For emergency responders

Protective equipment

: Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment

: Collect spillage.

Methods for cleaning up

: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public

waters.

Other information

: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

: Obtain special instructions before use. Do not handle until all safety precautions have been

read and understood. Wear personal protective equipment. Do not breathe

dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Avoid contact

with skin and eyes.

Hygiene measures

: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product.

Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

KURITA S-7630			
No additional information available			
Phosphonic acid (Proprietary)			
No additional information available			
Acrylic polymer (Proprietary)			
No additional information available			
Zine chloride (7646-85-7)			
USA - ACGIH - Occupational Exposure Lin	nits		
Local name	Zinc chloride fume		
ACGIH OEL TWA	1 mg/m³		
ACGIH OEL STEL	2 mg/m³		
Remark (ACGIH) TLV® Basis: LRT & URT irr			
Regulatory reference ACGIH 2021			
USA - OSHA - Occupational Exposure Lim	its		
Local name	Zinc chloride fume		

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OSHA PEL TWA [1]	1 mg/m³
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
Hydrochloric acid (7647-01-0)	The second secon
USA - ACGIH - Occupational Exposure Li	inits
Local name	Hydrogen chloride
ACGIH OEL C [ppm]	2 ppm
Remark (ACGIH)	TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2021
USA - OSHA - Occupational Exposure Lin	nits
Local name	Hydrogen chloride
OSHA PEL C	7 mg/m³
OSHA PEL C [ppm]	5 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

Appropriate engineering controls

: Ensure good ventilation of the work station.

Environmental exposure controls

: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Wear respiratory protection.

Personal protective equipment symbol(s):





SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state

: Liquid

Color

: Clear, colorless/yellowish

Odor

: Acidic

Odor threshold

: No data available

pH Melting point

: < 1

Freezing point

: Not applicable

: -20 °C

Boiling point Flash point

: No data available : No data available

Relative evaporation rate (butyl acetate=1)

: No data available

Flammability (solid, gas)

: Not applicable.

Vapor pressure

: No data available

Relative vapor density at 20 °C

: No data available

Relative density

: 1.18 - 1.22 (20 dC)

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Solubility : soluble in water. Partition coefficient n-octanol/water (Log Pow) : No data available : No data available Auto-ignition temperature : No data available Decomposition temperature : No data available No data availableViscosity, kinematic Viscosity, dynamic : No data available : No data available **Explosion limits** Explosive properties : No data available Oxidizing properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Harmful if inhaled.

KURITA S-7630		
LD50 oral rat	> 4000 mg/kg	
ATE US (dust, mist)	3.75 mg/l/4h	

Zine chloride (7646-85-7)	
LD50 oral rat	1100 mg/kg Source: ECHA
LD50 dermal rat	> 2000 mg/kg Source: ECHA
LC50 Inhalation - Rat	≤ 1975 mg/m³ Source: ECHA
ATE US (oral)	1100 mg/kg body weight
ATE US (dust, mist)	1.5 mg/l/4h

Hydrochloric acid (7647-01-0)	
LD50 oral rat	238 mg/kg Source: HSDB
LD50 dermal rabbit	> 5010 mg/kg Source: ECHA
LC50 Inhalation - Rat [ppm]	0.16 – 1.4 ppm Source: HSDB
ATE US (oral)	238 mg/kg body weight
ATE US (gases)	0.16 ppmV/4h
ATE US (vapors)	3 mg/l/4h
ATE US (dust, mist)	0.5 mg/l/4h

Skin corrosion/irritation : Causes severe skin burns.

pH: < 1

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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Serious eye damage/irritation

: Causes serious eye damage.

pH: < 1

Respiratory or skin sensitization

: Not classified

Germ cell mutagenicity

: Suspected of causing genetic defects.

Carcinogenicity

: Not classified

Hydrochloric acid (7647-01-0)

IARC group

3 - Not classifiable

Reproductive toxicity

: Suspected of damaging fertility or the unborn child.

STOT-single exposure

: Causes damage to organs.

STOT-repeated exposure

: Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard Viscosity, kinematic

: Not classified : No data available

Symptoms/effects after skin contact

Burns

Symptoms/effects after eye contact

: Serious damage to eyes.

Symptoms/effects after ingestion

: Burns.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general

: Toxic to aquatic life with long lasting effects.

KURITA S-7630

LC50 - Fish [1]

> 320 mg/l Killifish (48 Hr)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description (DOT)

: UN3265 Corrosive liquid, acidic, organic, n.o.s. (ZINC CHLORIDE, HYDROCHLORIC ACID), 8,

PG III

UN-No.(DOT)

: UN3265

Proper Shipping Name (DOT)

: Corrosive liquid, acidic, organic, n.o.s.

ZINC CHLORIDE, HYDROCHLORIC ACID

Class (DOT)

: 8 - Class 8 - Corrosive material 49 CFR 173.136

Packing group (DOT)

: PG III - Minor Danger

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Hazard labels (DOT)

: 8 - Corrosive



Dangerous for the environment

Marine pollutant

: Yes

Yes



DOT Packaging Non Bulk (49 CFR 173.xxx)

DOT Packaging Bulk (49 CFR 173.xxx)

DOT Special Provisions (49 CFR 172.102)

: 203

: 241

: 386 - Notwithstanding the provisions of §177.834(I) of this subchapter, cargo heaters may be used when weather conditions are such that the freezing of a wetted explosive material is likely. Shipments must be made by private, leased or contract carrier vehicles under exclusive use of the offeror. Cargo heaters must be reverse refrigeration (heat pump) units. Shipments made in accordance with this Special provision are excepted from the requirements of §173.60(b)(4) of this subchapter.

IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672)

T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)

TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packaging Exceptions (49 CFR 173.xxx)

DOT Quantity Limitations Passenger aircraft/rail : 5 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 60 L

CFR 175.75)

DOT Vessel Stowage Location

: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

passenger vessel.

DOT Vessel Stowage Other

: 40 - Stow "clear of living quarters"

Emergency Response Guide (ERG) Number

Other information

: No supplementary information available.

Transportation of Dangerous Goods

Transport document description (TDG)

: UN3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (ZINC CHLORIDE,

HYDROCHLORIC ACID), 8, III

UN-No. (TDG)

: UN3265

Proper Shipping Name (TDG)

: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

TDG Primary Hazard Classes

: 8 - Class 8 - Corrosives

Packing group (TDG)

: III - Minor Danger

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

TDG Special Provisions

: 16 - (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the hazard or hazards posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(ii)(A) of Part 3 (Documentation). The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4 (Dangerous Goods Safety Marks). (2) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical name:

(a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S;

(b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S;

(c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S;

(d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or

(e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S.

(3) Despite subsection (1), the technical name for the following dangerous goods is not

required to be shown on a small means of containment:

(a) UN2814, INFECTIOUS SUBSTANCE, AFFECTING HUMANS; or (b) UN2900, INFECTIOUS SUBSTANCE, AFFECTING ANIMALS.

Explosive Limit and Limited Quantity Index

Passenger Carrying Road Vehicle or Passenger : 5 L

Carrying Railway Vehicle Index

: 5 L

Transport by sea

UN-No. (IMDG)

: 3265

Proper Shipping Name (IMDG)

: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

Class (IMDG)

: 8 - Corrosive substances

Packing group (IMDG)

: III - substances presenting low danger

Limited quantities (IMDG)

: 5 L

Marine pollutant

: Yes



Air transport

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed as Active, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Phosphonic acid	CAS-No. Proprietary	%
Acrylic polymer	CAS-No. Proprietary	/
Zíne chloride	CAS-No. 7646-85-7	1 – 10%
Hydrochloric acid	CAS-No. 7647-01-0	1 – 10%

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Zine chloride Hydrochloric acid	CAS-No. 7646-85-7	
Zine chloride (7646-85-7) CERCLA RQ		
CERCLA RQ 1000 lb		

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Hydrochloric acid (7647-01-0)	
Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	5000 lb
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb

15.2. International regulations

CANADA

No additional information available

Zine chloride (7646-85-7)	
Listed on the Canadian DSL (Domestic Substances List)	
Hydrochloric acid (7647-01-0)	
Listed on the Canadian DSL (Domestic Substances List)	

EU-Regulations

No additional information available

National regulations

Zine chloride (7646-85-7)	THE PROPERTY OF A SCHOOL STATE OF THE PROPERTY
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on INSQ (Mexican National Inventory of Chemical Substances)	
Hydrochloric acid (7647-01-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory - Status: Active Listed on INSQ (Mexican National Inventory of Chemical Substances)	

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
Hydrochloric acid(7647-01-0)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List
Zine chloride(7646-85-7)	U.S Massachusetts - Right To Know List; U.S New Jersey - Right to Know Hazardous Substance List; U.S Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date

: 08/09/2021

Kurita - SDS US (GHS HazCom 2012)

Author: Kurita Water Industries Ltd Revision Notes: Updated to GHS format

Disclaimer:

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s). The above information is not claiming characteristics of the product in term of legal claims of performance / guarantee. This information only describes safety measures and no liability may arise from the use or application of the product described herein. This information is given in good faith and based on our current knowledge of the product.



Printed: 07/22/2021

Revision: 06/01/2021

Supersedes Revision: 03/27/2017

SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Code:

211214

Product Name:

KURITA F-5110

Category:

Biocide

Company Name:

Kurita America, Inc.

6600 94th Ave North

Phone Number: (972)484-4438

Minneapolis, MN 55445

Emergency Contact:

CHEMTREC

(800)424-9300

Information:

EPA #:73683

2. HAZARDS IDENTIFICATION

Skin Corrosion/Irritation, Category 1C

Skin Sensitization, Category 1

Serious Eye Damage/Eye Irritation, Category 1





GHS Signal Word:

Danger

GHS Hazard Phrases:

H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

GHS Precautionary Phrases: P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

P264 - Wash hands thoroughly after handling.

P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves/protective clothing/eye protection/face protection.

GHS Response Phrases:

P301+330+331 - IF SWALLOWED: Rinse mouth, Do NOT induce vomiting.

P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated

clothing. Rinse skin with water/shower.

P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position

comfortable for breathing.

P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER or doctor/physician.

P333+313 - If skin irritation or rash occurs, seek medical advice/attention.

P363 - Wash contaminated clothing before reuse.

GHS Storage and Disposal

P405 - Store locked up.

Phrases:

P501 - Dispose of contents/container to accordance with local and national regulations.

Hazard Rating System:

HEALTH 3 **FLAMMABILITY** 0 0 PPE

HMIS:



Printed: 07/22/2021 Revision: 06/01/2021

Supersedes Revision: 03/27/2017

SAFETY DATA SHEET

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS#

Ingredient(s)

Concentration

7631-99-4

Sodium nitrate

< 2.5 %

55965-84-9

Mixture, 5-Chloro-2-methyl-2H-isothiazol-3-one & 1.4 -1.6 %

2-Methyl-2H-isothiazol-3-one (3:1)

Additional Information: The CAS No. of the single components are: CIT: 26172-55-4; MIT: 2682-20-4. The remaining balance of the ingredients is water (CAS# 7732-18-5)

4. FIRST AID MEASURES

Emergency and First Aid

Procedures:

In Case of Inhalation:

Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing

is difficult, give oxygen. Seek medical advice/attention immediately.

In Case of Skin Contact:

Wash exposed area with soap and water thoroughly. Remove contaminated clothing and

wash before reuse. Seek medical advice/attention immediately. Failure to treat burns can

prevent wounds from healing.

In Case of Eye Contact:

Immediately flush eyes with running water for at least 15 minutes. Remove contact lenses

if present and easy to do so, after the first 5 minutes. Seek medical advice/attention

immediately.

In Case of Ingestion:

Rinse mouth with water. Do NOT induce vomiting. A person vomiting while lying on their

back should be turned onto their side. Never give anything to an unconscious person.

Seek medical advice/attention immediately.

Signs and Symptoms Of

Exposure:

Skin contact may lead to destruction of tissue which is painful and tends to heal slowly.

Note to Physician:

Probable mucosal damage may contraindicate the use of gastric lavage. Based on the individual reactions of the patient, the physician's judgment should be used to treat

symptomatically and supportively.

5. FIRE FIGHTING MEASURES

Flash Pt:

> 93.3 C (> 200.00 F) Method Used: ASTM D Closed Cup

Explosive Limits:

LEL: No data.

UEL: No data.

Autoignition Pt:

NA

Suitable Extinguishing Media: Product is not flammable under normal conditions. Use extinguishing media suitable for

source of the fire. Use water spray to cool the containers exposed to the fire.

Fire Fighting Instructions:

Fire fighters should wear appropriate protective clothing and the appropriate self

contained breathing apparatus (if necessary).

Flammable Properties and

Hazards:

No data available.



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6. ACCIDENTAL RELEASE MEASURES

Protective Precautions. Protective Equipment and **Emergency Procedures:**

Wear recommended protective equipment. Impermeable protective clothes, protective boots made of neoprene, complete face protection, nitrile-rubber-gloves with long tops. When selecting the protective suit, it has to provide the complete and safe protection of

skin and mucous membrane. Keep unprotected persons away.

Environmental Precautions:

As the product is hazardous for the aquatic environment, it must be prevented from reaching surface water. Dam and absorb spillage with chemical binder. Inform respective authorities in case of seepage into water course or sewage system.

Steps To Be Taken in Case Material Is Released Or Spilled:

Collect liquid by absorbing with an inert material (e.g. vermiculite, dry sand, earth), clean contaminated surface thoroughly, and place in a container for disposal according to local regulations. Surfaces can be decontaminated with a solution containing 5% sodium bisulfite and 5% sodium bicarbonate. In case of product reaching water source, collect contaiminated water and add 10% sodium bisulfite solution. Contact supplier for more instructions.

7. HANDLING AND STORAGE

Precautions To Be Taken in Handling:

Load carefully, avoid splashes. Handle product in closed systems preferably. Clean contaminated work equipment immediately to avoid skin corrosion/irritation and/or allergic skin reactions in case of unconscious skin contact. Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling. Avoid breathing product vapors or mists. Use with adequate ventilation. Keep containers closed when not in use.

Precautions To Be Taken in Storing:

Store in a dry, cool, and well ventilated area away from heat sources and incompatible materials. Keep containers securely sealed. Protect containers from physical damage and check regularly for leaks.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CAS# Components (Chemical Name)

OSHA TWA

ACGIH TWA

Other Limits

7631-99-4

Sodium nitrate

No data.

No data.

No data.

55965-84-9

Mixture.

No data.

No data.

No data.

5-Chloro-2-methyl-2H-isothiazol-3-one & 2-Methyl-2H-isothiazol-3-one (3:1)

Respiratory Equipment

No Specific requirements. A risk assessment should be made to determine if respiratory

(Specify Type):

protection is necessary.

Eye Protection:

Splash goggles and/or face shield.

Protective Gloves:

Wear appropriate impermeable gloves.

Other Protective Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Engineering Controls

(Ventilation etc.):

Use local and/or general exhaust ventilation to maintain airborne concentrations below irritating levels or airborne exposure limits, whichever is lower. Local exhaust is generally preferred because it can control the emission of the contaminant at its source, preventing

dispersion of it into the general work area.

Work/Hygienic/Maintenance

Practices:

An eye wash station should be accessible in the immediate area of use. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be

cleaned. Practice good housekeeping.



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9. PHYSICAL AND CHEMICAL PROPERTIES

Physical States:

[] Gas

[X] Liquid [] Solid

Appearance and Odor:

Colorless to pale yellow.

Mild Odor.

Melting Point:

-6.7 C (20.00 F) - 0.0 C (32.00 F)

Boiling Point:

100.00 C (212.0 F)

Autoignition Pt:

NA

Flash Pt:

> 93.3 C (> 200.00 F) Method Used: ASTM D Closed Cup

Explosive Limits:

LEL: No data.

UEL: No data.

Specific Gravity (Water = 1):

1.015-1.035 at 20.0 C (68.0 F)

Vapor Pressure (vs. Air or

23 MBAR

mm Hg):

Vapor Density (vs. Air = 1):

No data.

Evaporation Rate:

No data.

Solubility in Water:

soluble 3.0 - 4.0

pH:

Percent Volatile:

No data.

10. STABILITY AND REACTIVITY

Stability:

Unstable []

Conditions To Avoid - Instability:

Minimum shelf life: 18 months from production date, if stored at a

temperature of about 20°C.

Incompatibility - Materials To Avoid:

Reactive or incompatible with the following materials: Alkali metals,

Reducing agents, Strong oxidizing agents, Nucleophiles.

Stable [X]

Byproducts:

oxides of nitrogen, sulfur oxides (SOx), Carbon oxides, hydrogen

Possibility of Hazardous Reactions:

chloride.

Conditions To Avoid - Hazardous

Hazardous Decomposition or

Will occur []

Reactions:

Will not occur [X]

No data available.



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SAFETY DATA SHEET

11. TOXICOLOGICAL INFORMATION

Toxicological Information:

Acute Toxicity estimates (ATE) or LD50/LC50 values:

Oral: 4467 mg/kg (rat) OECD 401

Dermal: >5,000 mg/kg (rat) OECD 402

Inhalation: 11.3 mg/L, 4h (rat) OECD 403

CAS# 55965-84-9:

Irritation or Corrosion:

Acute toxicity, LD50, Oral, Rat, 53.00 MG/KG.

Result:

Behavioral: Somnolence (general depressed activity).

Behavioral: Ataxia.

Lungs, Thorax, or Respiration: Respiratory depression.

- Mutation Research., Elsevier Science Pub. B.V., POB 211, 1000 AE, Amsterdam

Netherlands, Vol/p/yr: 118,129, 1983

Caustic effect on skin and mucous membranes.

Sensitization:

May cause an allergic skin reaction or burns.

Carcinogenicity/Other Information:

CAS

CAS# 55965-84-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS#	Ingredient(s)	NTP	IARC	ACGIH	OSHA
7631-99-4	Sodium nitrate	n.a.	n.a.	n.a.	n.a.
55965-84-9	Mixture, 5-Chloro-2-methyl-2H-isothiazol-3-one & 2-Methyl-2H-isothiazol-3-one (3:1)	n.a.	n.a.	n.a.	n.a.

12. ECOLOGICAL INFORMATION

General Ecological

Aquatic Toxicity:

Information:

EC50 / 48 h: 6.7 mg/L (Daphnia) OECD 202

IC50 / 72 h: 3.2 mg/L (Pseudokirchneriella subcapitata) OECD 201

Very toxic to aquatic life with long lasting effects.

Results of PBT and vPvB assessment:

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

CAS# 7631-99-4:

LC50, Bluegill (Lepomis macrochirus), 12800000. UG/L, 24 H, Mortality, Water

temperature: 21.00 C (69.8 F) - 25.00 C (77.0 F) C.

Result: Age Effects.

- Toxicity of Selected Chemicals to Certain Animals, Dowden, B.F., and H.J. Bennett,

1965

LC50, Water Flea (Daphnia magna), 5980000. UG/L, 24 H, Mortality, Water temperature:

21.00 C (69.8 F) - 25.00 C (77.0 F) C.

Result:

Affected fish lost equilibrium prior to death.

- Toxicity of Selected Chemicals to Certain Animals, Dowden, B.F., and H.J. Bennett,

1965

Not reported., Green Algae (Scenedesmus acutus var. acutus), Exponential Growth Phase, 120000. UG/L, 1 H, Physiology, Water temperature: 30.00 C (86.0 F) C, pH: 7.00.

Result:

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Affected fish became hypoactive.

Affected fish lost equilibrium prior to death.

- Toxicity of Ammonia to Algae in Sewage Oxidation Ponds, Abeliovich, A., and Y. Azov,

1976

Persistence and Degradability: The components are rapidly degradable.

Bioaccumulative Potential:

Does not accumulate in organisms.

Mobility in Soil:

No data available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method:

RCRA: It is the responsibility of the product user to determine at the time of disposal whether a material containing the product or derived from the product should be classified as a hazardous waste (40 CFR 261.20-24).

Disposal: Biocide or Pesticide wastes are acutely hazardous. Improper disposal or excess product or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Biocide/Pesticide or Environmental Control Agency, or the Hazardous Waste representative at your nearest

EPA Regulation Office for guidance

14. TRANSPORT INFORMATION

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Corrosive liquid, acidic, organic, n.o.s.(Mixture containing,

5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one (3:1))

DOT Hazard Class:

8

CORROSIVE

UN/NA Number:

UN3265

Packing Group:

111



LAND TRANSPORT (Canadian TDG):

TDG Shipping Name:

Corrosive liquid, acidic, organic, n.o.s. (Mixture containing,

5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one (3:1))

UN Number:

3265

Packing Group:

111

Hazard Class:

8 - CORROSIVE

TDG Classification:

MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name:

Corrosive liquid, acidic, organic, n.o.s.(Mixture containing,

5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one (3:1))

UN Number:

3265

Packing Group:

111

Hazard Class:

8 - CORROSIVE

IMDG MFAG Number:

IMDG EMS Page:

Marine Pollutant:

Yes

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name:

Corrosive liquid, acidic, organic, n.o.s.(Mixture containing,

5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one (3:1))

UN Number:

3265

Packing Group:

111

Hazard Class:

8 - CORROSIVE



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15. REGULATORY INFORMATION

EPA SARA (S	uperfund Amend	ments and Reauth	orization Act	of 1986) Lists		
CAS#	Ingredient(s)			S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
7631-99-4	Sodium nitrate			No	No	Yes-Cat. N511
55965-84-9		ro-2-methyl-2H-isoti othiazol-3-one (3:1)	niazol-3-one &	No	No	No
'Hazard Cate	l meets the EPA gories' defined le III Sections	[] Yes [X] No [] Yes [] No [X] Yes [X] No [] Yes [X] No	Flammable Oxidizer (liq Self-reactive Pyrophoric of Self-heating Organic per Corrosive to Gas under point of In contact we Combustible (Physical) Howard Acute toxicit Skin Corros Serious eye Respiratory Germ cell mo Carcinogeni Reproductiv Specific targ Aspiration Howard Simple Aspir	(liquid or solid) gas l poxide o metal pressure (compres with water emits flant e Dust lazard Not Otherwit y (any route of exp ion or Irritation damage or eye irr or Skin Sensitization utagenicity city let toxicity let organ toxicity (secondary)	sed gas) mmable gas ise Classified (HNC posure) itation on	exposure)
	162 100	[] Yes [X] No	(Health) Haz	ard Not Otherwise	Classified (HNOC)
CAS#	Ingredient(s)			Canadian NPRI	Canadian IDL	Canadian DSL
7631-99-4	Sodium nitrate				Yes	Yes
55965-84-9		o-2-methyl-2H-isoth hiazol-3-one (3:1)	iazol-3-one &	No	No	Yes
CAS#	Ingredient(s)			Other US EPA or S	State Lists	
7631-99-4	Sodium nitrate			CAA HAP,ODC: N Inventory, 8A CAIF	o; CWA NPDES: No	ve - 076104: Am/CC,
55965-84-9		n-2-methyl-2H-isothi niazol-3-one (3:1)	azol-3-one &	CAA HAP,ODC: N	o; CWA NPDES: No	o; TSCA: No; FIFRA: DA/DEA CSA: No; CA



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Regulatory Information:

Primary EPA Registration #: 88714-7

This product is subject to registration under FIFRA.
All ingredients are reported in the EPA TSCA Inventory.

Canadian regulations: This product is not registered for sale or use as a pesticide in

Canada.

16. OTHER INFORMATION

Revision Date:

06/01/2021

Additional Information About No data available.

This Product:

Company Policy or

Disclaimer:

Safety Data Sheet Kurita America INC



KURITA S-6000R

MSDS Number:

KURITA S-6000R

Revision Date: 12/17/12

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1 PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER

Kurita America, INC

16850 DIANA LANE, SUITE B-104

HOUSTON, TX 77058

Contact:

Kurita America, Inc.

Phone:

281-998-3900

FAX Number:

281-998-3903

E-Mail:

Web

www.kuritaamerica.com

Product Name:

KURITA S-6000R

Revision Date:

11/26/2012

MSDS Number:

KURITA S-6000R 7646-85-7

CAS Number: Product Use:

Cooling water corrosion inhibitor

Emergency Telephone:

24 hours a day/ 7 days a week

CHEMTREC

1-800-424-9300

Health/ Transport/ Regulatory

1-800-424-8802

2

COMPOSITION/ INMFORMATION ON INGREDIENTS

Ingredients:

Zinc Chloride

The following chemical component of this product is hazardous under OSHA Hazard Communication Standard

Cas#

Chemical Name

%

7646-85-7

Zinc Chloride

< 60

Safety Data Sheet Kurita America INC



KURITA S-6000R

MSDS Number:

KURITA S-6000R

Revision Date: 12/17/12

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3 HAZARDS IDENTIFICATION

Route of Entry:

Skin, Eye, Inhalation, Ingestion

Inhalation:

Inhalation of vapor or mist can cause the irritation to the nose, throat and lungs

Skin Contact:

May result in irritation or burns upon contact with skin.

Eye Contact:

May cause severe corrosion to the eyes or permanent eye injury.

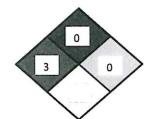
Ingestion:

May be harmful if swallowed

Symptom of exposure:

A review of available data does not identify any symptoms from exposure.

NFPA:



Health=

Flammability=

3

0

Instability=

WHMIS:



4 FIRST AID MEASURES

Inhalation:

If overcome by vapors, remove to fresh air.

Skin Contact:

Wash with soap and water. Launder contaminated clothing prior to reuse. For major

exposure, rinse body thoroughly under shower. Seek medical attention.

Eye Contact:

Flush eyes immediately and gently with large volumes of water for 15 minutes. Hold eyelids

open to ensure proper flushing. Seek medical attention.

Ingestion:

If conscious, give copious amounts of water. Do not induce vomiting. Seek medical attention

immediately.

Physician Notes:

Treat symptomatically

Safety Data Sheet Kurita America INC



KURITA S-6000R

MSDS Number:

KURITA S-6000R

Revision Date: 12/17/12

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5

FIRE FIGHTING MEASURES

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure- demand,

MSHA/NIOSH (approved or equivalent), and full protective gear.

Product is not flammable

Extinguishing Method:

Water Spray or extinguishing media suitable for the surrounding fire

Flash Point:

Not applicable

Auto ignition Temperature:

Not applicable

Explosion Limits:

Upper

Not applicable

Lower

Not applicable

NFPA:

Health: 3

Instability: 0

6

ACCIDENTAL RELEASE MEASURES

General Information:

Use proper personal protective equipment as indicated in section 8.

Material is corrosive. Keep spills out of municipal sewers and open body's of water.

Small Spills:

Cover with absorbent material. Transfer into drums for disposal.

Large Spills:

Dike to contain liquid. Pump off product into approved contains.

Cover residual with absorbent material and place in approved containers. Neutralize with sodium bicarbonate and flush with copious amounts of water.

7

HANDLING AND STORAGE

Handling Precautions:

Regard as irritating to eyes and skin.

For industrial use only. Do not take internally.

Do not contact with food or feedstuffs.

Handle product in well ventilated working areas

Flammability: 0

Storage Requirements:

Empty containers may contain residual product.

Do not reuse container unless properly reconditioned.

Store in tightly close containers in a cool, well ventilated area

Storage Temperatures:

> 34 deg F and < 120 deg F

Safety Data Sheet Kurita America INC



KURITA S-6000R

MSDS Number:

KURITA S-6000R

Revision Date: 12/17/12

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8 EXPOSURE CONTROL/ PERSONAL PROTECTION

Exposure Limits:

Zinc Chloride

OSHA PEL N/A

Engineering Controls:

VENTILATION: Use local exhaust ventilation with a minimum capture velocity of

150 ft/min. Adequate ventilation is recommended.

Protective Equipment:

RESPIRATORY PROTECTION: Not normally required as volatility and toxicity are low. If significant vapors accumulate, wear NIOSH approved acid gas / organic vapor

respirator or equivalent.

<u>PROTECTION EQUIPMENT</u>: Use chemical resistant gloves, chemical splash goggles and apron when handling concentrated product. Access to safety shower and eye wash

station is recommended.

9	PHYSICAL	AND CHE	MICAL P	ROPERTIES
---	----------	---------	---------	-----------

1.5 - 2.5 (as delivered)

Appearance:

Colorless

Boiling Point:

No Data

Physical State:

Liquid

Freezing Point:

-10°C

Odor:

Acidic

Solubility in Water:

completely soluble

2

pH:

.....

Spec Gravity:

1.52 - 1.62

Vapor Pressure:

No Data

Density:

12.68 - 13.51

Vapor Density:

No Data

Auto Flammability:

No data

10

SATBILITY AND REACTIVITY

Stability:

Stable at ambient temperature and recommended storage conditions

Conditions to avoid:

Strong oxiders and alkaline conditions

Materials to avoid (incompatibility): Hazardous Decomposition products: Strong oxidizers and alkalis

Hazardous Polymerization:

Will not occur

None

Safety Data Sheet Kurita America INC



KURITA S-6000R

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11

TOXICOLOGICAL INFORMATION

LD (50) oral/rat:

350 mg/kg

LC (50) Inhalation toxicity/rat:

1960 mg/m3/10min

Carcinogenicity:

No Data

Teratogenicity:

No Data

Reproductive Effects:

No Data

Mutagenicity:

No Data

Neurotoxicity:

No Data

Other Studies:

No Data

12

ECOLOGICAL INFORMATION

LC (50) Killfish: 24hr

100 mg/l

LC (50) Killfish: 48hr

76 mg/l

13

DISPOSAL CONSIDERATIONS

Dispose in accordance with federal, state, and local regulations. Do not allow material to enter ground water system.

Neutralize product with aqueous sodium bicarbonate. Dispose of zinc salt after evaporation according to regulation.

Rinse empty containers with water and dispose according to regulations.

Water disposal key:

No data

(refer to Germany)



Safety Data Sheet Kurita America INC



KURITA S-6000R

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14 TRANSPORTATION INFORMATIO

DOT Shipping Name:

Corrosive liquid

UN-No:

1840

Hazard Class:

8

Danger Code:

Danger- Note:

8

Pack Group:

111

Placards Required:

Corrosive

15 REGULATORY INFORMATION

Contains:

Zinc Chloride

Applicable

United States TSCA Inventory (US TSCA): All products are in compliance with TSCA

16 OTHER INFORMATION

The information contained herein is, to the best of our knowledge and belief, accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Vendor assumes no responsibility for injury, to vendee or third person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in this use of the material.

Chemical Addition Form

LOUISIANA, LLC

SLA-SAF-014.02-R03-V01

This form must be approved before any chemical can be brought into Shintech. Chemicals brought in on a temporary basis should be noted and notice given when the chemical(s) is no longer used at the facility. List all chemicals that will be replaced and are no longer needed. The PPE Matrix must be updated for chemicals with a hazard prior to use. SDS Must be attached to this form

				1			-	
Requestor	Mark	Brown	7	Unit	PEP-1	Phone	687-2105	ext5743
Chemical	Name: (n	ame filed by)	Kurita P-	3700				
		plier / Vendor:	Kurita Ar	merica, li	nc.			
Storage L	ocations	(Check all that apply)	······································					
PLAQUEMI	NE PLANT:							
CA-1 LA	в 🗆 Сл	A1 UNIT CA2	-LAB	CA2 (JNIT 🗆 D	оск П ғ	RP SHOP	
☐ Materia	I HANDLIN	G NORTH	TANK YARD	THE RESERVE OF STREET	PEP1 UNIT	PEP1 LAB	1 <u>024 020</u> 1	MAINT DE
PVC UNI	T [CM1 UNIT		VCM1 LAB	Ø VCM2 UN		VCM2 LAB
☐ STORES		TERMINEX MSDS		JRNER TR		2 4 cm 2 or	,,, U	VCIVIZ LAB
ADDIS PLAN	ADDIS PLANT:							
☐ GRASS C	UTTER CHE	MICALS HOL	JSEHOLD CH	HEMICALS	□ IAB C	HEMICALS	C NAME TO	MANGE
☐ MATERIA	AL HANDLIN		OFFICE MS			N CHEMICALS	MAINTE	NANCE
Current Re							es 🗌 No 🗵	7 🗀
	Date: 12-30-2015 If Hazard Exists, then PPE Matrix Must Be Updated Prior to Approval							
Container S	Size: ex. 55 g	gal., 1 liter, 3,000 gal. etc.	275 galle		Container Typ			Tote
	Chemical Form: Copy from SDS Liquid							
Maximum a	amount on	site at one time: ded to: stores, warehouses	Drocos		The state of the s	1375	The second secon	
		s for Delivery: ex. Nun						
					ections etc.		al will be inject cooling towe	
Purpose for	bringing /	removing this chen why are we removing this	nical on site	e:	Company of the second			
11.17	e need in o	with are we removing this	cnemical?				our water tre	eatment or passivation
Name of ch	emical ho	ing roplaced re-				of excha	angers	
What cher	mical is this NE	ng replaced, remain W chemical replacing and	ning quant how much of I	ity on sit the old chen	e: nical will be left on :	N/A		
Temporary		⊠ Yes ☐ No If ye						
Store Stock		200			the Addition	to Store (ATS)	form	
Production I	Raw Mater	- 1			Lab Superinten			
NSF Certific	ation Req	The state of the s			ab Superintende			
Affected Em	T	i	Trai	ining Requ	uirements:	int 3 approvar to	required.	
Affected Em Requestors	ipioyees i Responsit	rained Yes 🗵	No •		w the SDS			
- 12 Section (11 € Proceeding From Library consideration of Machinery		,	•	Revie	w all specials s	afety requiren	nents and ha	azards
Approvals				Kevie	w disposal met	hods and pack	kaging	
	m D	Sign	Date			Sign		Date
Requestor	M Bron	<u> </u>	14.19	Environn	nental	Max 155	Se	6/19/19
urchasing	A Y	te 8	-19-19	Lab Supe	rintendent			
afety	20	a 9	- 19-19	Superinte	endent (Water	22-	8/14/19

Safety Data Sheet



Date: 12/30/2015

KURITA P-3700

IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

Product Name:

KURITA P-3700

Product Use:

Corrosion inhibitor for the initial treatment of cooling water system

Manufacturer:

Kurita America, Inc.

16850 Diana Lane, Suite B 104, Houston, Texas 77058

Contact:

Chemical Group

Phone:

281-998-3900

FAX:

281-998-3903

Emergency Telephone:

CHEMTREC (Health/Transport/Regulatory)

1-800-424-9300 1-800-424-8802

HAZARDS IDENTIFICATION

Classification:

Physical Hazard

Explosives: Not applicable Flammable gases: Not applicable Flammable aerosols: Not applicable Oxidizing gases: Not applicable Gases under pressure: Not applicable Flammable liquids: Not classified Flammable solids: Not applicable Self-reactive substances: Not classified Pyrophoric liquids: Not classified Pyrophoric solids: Not applicable Self-heating substances: Not classified

Substances which in contact with water emit

flammable gasses: Not classified Oxidizing liquids: Not classified Oxidizing solids: Not applicable Organic peroxides: Not applicable Corrosive to metals: Not classified

Health Hazard

Acute toxicity

Oral: Not classified

Dermal: Classification not possible Gases: Classification not possible Classification not possible Vapors:

Safety Data Sheet



KURITA P-3700

Dust & mists:

Skin corrosion/irritation:

Serious eye damage/eye irritation:

Respiratory sensitization:

Skin sensitization: Germ cell mutagenicity:

Carcinogenicity:

Reproductive toxicology:

Target organ systemic toxicity

- Single exposure:

Target organ systemic toxicity

- Repeated exposure:

Aspiration toxicity: Environmental Hazard

Acute aquatic toxicity:

Chronic aquatic toxicity:

Classification not possible

Category 3

Category 2B

Classification not possible

Classification not possible Classification not possible Classification not possible

Classification not possible

Classification not possible

Classification not possible Classification not possible

Not classified

Classification not possible

Signal word:

Warning

Hazard statements:

Causes skin irritation Causes eye irritation

Precautionary statements

Prevention:

Wash contact skin thoroughly after handling

Wear protective gloves/protective clothing/eye protection/face

protection.

Response:

IF ON SKIN: Wash with plenty of soap and water.

IF SKIN irritation occur : Get medical advice/attention

IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lens, if present and easy to do. Continue rinsing. If eye Irritation persists: Get medical advice/attention

Store:

Store locked up.

Disposal:

Disposal of contents/container to in accordance to local disposal

regulation.

COMPOSITION / INMFORMATION ON INGREDIENTS

Chemical Name

CAS No.

Weight %

Sodium Hexametaphosphate

Not disclosed

Not disclosed

Safety Data Sheet



KURITA P-3700

4	FIRST-AID	MEASH	RES
2000	LIU21-WIN	MILWOO	UE3

General instruction:

Seek medical attention whenever necessary.

Inhalation:

The possibilities to cause acute toxicity are very few as the product is

liquid.

Skin contact:

Remove contaminated clothes and wash affected are with plenty of

water. If skin irritation occur, get medical attention.

Eye contact:

Wash eyes immediately with plenty of water for more than 15

minutes. Get medical attention immediately.

Ingestion:

Rinse mouth. Do not induce vomiting without medical advice.

Get medical attention immediately.

5 FIRE-FIGHTING MEASURES

Fire-fighting procedures:

The product itself is not flammable. Keep away from the source of fire

or cool containers with water in case of difficult transportation.

Extinguishing media:

Use extinguisher media available to surrounding fire conditions.

ACCIDENTAL RELEASE MEASURES

Measures for leakage:

Wear proper protective equipment. Absorb spill with inert material(eg.

Dry sand or earth), then place in chemical waster container. Flush

residual spill with plenty of water.

HANDLING AND STORAGE

Precautions for safe handling:

Do not flush sewer or waste ways. Avoid contact with skin or eyes. Do

not breath fumes or vapors.

Conditions for safe storage:

Store in cool, dry, well ventilated location. Keep container tightly

closed when not in use.

8 EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure limits:

Not applicable

ACGIH (TLV-TWA8)

JSOH(Japan)

Safety Data Sheet



KURITA P-3700

Engineering controls:

General exhaust ventilation should be sufficient for most condition.

Personal protective equipment

Respiratory protection:

Fire respirator.

Skin protection:

Wear synthetic rubber made gloves.

Wear long-sleeved clothes, safety shoes and apron.

Eye protection:

Wear safety goggles.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Colorless to yellowish

Physical state:

Liquid

Specific gravity:

1.23 - 1.27 (20 dC)

Solubility:

Soluble in water Mild odor

Odor: Freezing point:

< -2 dC

Flash Point:

None

pH:

4.0 - 5.8 (20dC)

SATBILITY AND REACTIVITY

Stability:

Stable on normal usage or handling.

Condition to avoid:

Keep away from heat and any sources of ignition.

Product to avoid:

Do not mix with strong acids and storing reducing agents.

Hazardous decomposition

During fire, irritating and toxic gases may be generated by thermal

products:

decomposition or combustion.

TOXICOLOGICAL INFORMATION

Acute toxicity

LD (50) oral/rat:

> 2,000 mg/kg

Prolonged / repeated contact with the product may result in a week temporary irritation of the eyes and the skin.

ECOLOGICAL INFORMATION

Aquatic toxicity

Safety Data Sheet



KURITA P-3700

LC (50) Killifish 24hr:

4,400 mg/l

LC (50) Killifish 48hr:

3,500 mg/l

Never release the concentrated product to the environment. Neutralize and decant polluted waste water before its release into the drains.

DISPOSAL CONSIDERATIONS

Never draw chemical directly to waste water line. Request treatment to licensed waste water treatment company.

Empty used containers completely. Consulted with local Waste Treatment Specialist before disposal.

TRANSPORT INFORMATION

UN No.: Not applicable

UN Class: Not applicable

Packing group: Not applicable

REGULATORY INFORMATION

All components of this product are included on the TSCA inventory.

16 OTHER INFORMATION

The information contained herein is, to the best of our knowledge and belief, accurate. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Vendor assumes no responsibility for injury to vendee or third person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in this use of the material.



Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Version: 1.0

SECTION 1: Identification

Identification 1.1.

Product form

: Mixture

Name

: KURITA T-8800

1.2. Recommended use and restrictions on use

Recommended use

: Scale Inhibitor for Cooling Water System

1.3. Supplier

Kurita America Inc. 6600 94th Ave North Minneapolis, MN 55445 - USA

T 866-663-7632

kai sds@kurita-water.com - www.kuritaamerica.com

1.4. Emergency telephone number

Emergency number

: CHEMTEL, For Chemical Emergency Call 800-255-3924 24hr/day 7days/week

Kurita America: 866-663-7633 International: +01-813-248-0585

SECTION 2. Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labelling

No labelling applicable

2.3 Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingrestients

3.1. Substances

Not applicable

3.2. Mixtures

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of HazCom 2012

SECTION 4: Firetain measures

Description of first aid measures

First-aid measures after inhalation

: Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact

: Wash skin with plenty of water.

First-aid measures after eye contact

: Rinse eyes with water as a precaution.

First-aid measures after ingestion

: Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after skin contact

: None under normal conditions.

Symptoms/effects after eye contact

: May cause slight irritation.

4.3 Immediate medical attention and special treatment, if necessary

Treat symptomatically.

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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of : Toxic fumes may be released.

fire

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing

apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

Reference to other sections
 For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the

product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

KURITA T-8800

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

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Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):







SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : Clear to slighlty yellow

Odour : Míld

Odour threshold : No data available

pH : 4.1 - 5.1Melting point : $0 \,^{\circ}$ C

Freezing point : No data available

Boiling point : 100 °C

Flash point : Noncombustible
Relative evaporation rate (butylacetate=1) : No data available
Flammability (solid, gas) : Not applicable.
Vapour pressure : 17 mm Hg at 20°C
Relative vapour density at 20 °C : No data available

Relative density : 1.2

Molecular mass : 10500 – 14000 g/mol Solubility : Soluble in water.

Partition coefficient n-octanol/water (Log Pow) : No data available

Auto-ignition temperature : No data available

Decomposition temperature : > 250 °C

Viscosity, kinematic : No data available
Viscosity, dynamic : 150 – 350 mPa·s
Explosive limits : No data available
Explosive properties : No data available
Oxidising properties : No data available

9.2. Other information

No additional information available

SECTION (10: Stability and readdly by

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

Incompatible materials
 No additional information available

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according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

10.6. Hazardous decomposition products

Thermal decomposition may yield acrylic monomers.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

KURITA T-8800	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 5000 mg/kg

Skin corrosion/irritation : Not classified

pH: 4.1 – 5.1

Serious eye damage/irritation : Not classified

pH: 4.1 - 5.1

Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified

STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : No data available

Symptoms/effects after skin contact : None under normal conditions.
Symptoms/effects after eye contact : May cause slight irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse

effects in the environment.

KURITA T-8800	
LC50 - Fish [1]	> 10000 mg/l Bluegill sunfish (96 hr)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

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Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Kurita - SDS US (GHS HazCom 2012)

Author: Kurita Water Industries Ltd. Revision Notes: Updated to GHS format Disclaimer:

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purposes or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose(s). The above information is not claiming characteristics of the product in term of legal claims of performance / guarantee. This information only describes safety measures and no liability may arise from the use or application of the product described herein. This information is given in good faith and based on our current knowledge of the product

ATTACHMENT K – STORMWATER MANAGEMENT

Stormwater Runoff Commingled With Other Wastestreams

In response to question six (6) on the Industrial Technical Report, Steam condensate may be released in several areas of the plant, where it may be commingled with stormwater runoff during rainfall events.



Off-Site Wastes Received

K-Bin, located at 5616 Highway 332 East in Freeport, Texas, is a chemical compounding plant adjacent to the Shintech Incorporated facility. K-Bin takes resins produced by Shintech and creates a new resin compound.

As part of its manufacturing activities, K-Bin generates the following wastes that are transferred to Shintech for treatment and discharge

- Approximately 800 gallons per day of cooling water from a Nash Pump; and,
- Up to 72,800 gallons per day of wash water from two collection sumps.

The wash water includes sources from washing down hopper cars emptied of the PVC compound Dryblend, and washing down silo pads and/or loading barn concrete floors. Waste water from a small air scrubber, a pelletizer, and a de minimis amount of storm water are also potential sources.

The activities and material used at K-Bin are substantially similar to those of Shintech. Therefore, the waste streams from this off-site facility are compatible with other waste streams and treatment systems used at Shintech.



Enthalpy Analytical (formerly Environmental Chemistry Inc)

2525 West Bellfort, Suite 185

Houston, TX 77054

713-666-0020

NELAP T104704226-23-27

Tables 1, 2, 3(Volatiles), 6, 8 unless noted below

A&B Labs (ABL)

10100 East Freeway, Suite 100

Houston, TX 77029

713-453-6060

NELAP T104704213-23-31

Table 1 - TKN for Total Nitrogen calculation

Table 2 - Mercury (Low Level)

Table 3 – Semivolatiles, PCB's, Nonylphenol

Table 6 - Color

Table 11 - Pesticides



Table 1 for Outfall No.: <u>004</u>

Samples are (check one): ⊠ Composite □ Grab

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
BOD (5-day)	<2.0	<2.0	<2.0	<2.0
CBOD (5-day)	<2.0	<2.0	<2.0	<2.0
Chemical oxygen demand	78.0	49.5	51.5	44.5
Total organic carbon	17.2	12.7	13.6	10.4
Dissolved oxygen	14.4	12.0	10.5	10.8
Ammonia nitrogen	2.2	3.6	6.3	4.4
Total suspended solids	<5.0	<5.0	<5.0	<5.0
Nitrate nitrogen	0.54	0.58	0.75	0.70
Total organic nitrogen	1.77	2.09	0.80	2.15
Total phosphorus	0.51	0.86	1.10	0.97
Oil and grease	<5.0	<5.0	<5.0	<5.0
Total residual chlorine	0.68	0.51	0.65	0.50
Total dissolved solids	1,710	2,960	2,850	2,890
Sulfate	927	1,580	1,580	1,600
Chloride	140	305	246	236
Fluoride	<0.50	<0.50	<0.50	<0.50
Total alkalinity (mg/L as CaCO3)	74	76	84	80
Temperature (°F)	83.1	83.8	87.3	89.4
pH (standard units)	7.6	7.4	7.2	7.5

Table 2 for Outfall No.: <u>004</u>

Samples are (check one): ⊠ Composites □ Grabs

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (μg/L)
Aluminum, total	61.0	46.4	63.4	40.4	2.5
Antimony, total	0.20	0.50	0.50	0.40	5
Arsenic, total	3.8	4.0	3.7	3.8	0.5
Barium, total	101	107	83.4	105	3
Beryllium, total	<0.40	<0.40	<0.40	<0.40	0.5
Cadmium, total	<0.40	<0.40	<0.40	<0.40	1
Chromium, total	2.1	2.6	2.6	2.5	3
Chromium, hexavalent	<4.7	<4.7	<4.7	<4.7	3
Chromium, trivalent	2.1	2.6	2.6	2.5	N/A
Copper, total	2.8	2.9	1.7	1.6	2
Cyanide, available	<9.0	<9.0	<9.0	<9.0	2/10
Lead, total	<0.4	<0.4	<0.4	<0.4	0.5
Mercury, total	0.00328	0.0102	0.00259	0.00365	0.005/0.0005

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (μg/L)
Nickel, total	3.0	3.8	3.1	2.4	2
Selenium, total	<3.2	<3.2	<3.2	<3.2	5
Silver, total	<0.4	<0.4	<0.4	<0.4	0.5
Thallium, total	<0.4	<0.4	<0.4	<0.4	0.5
Zinc, total	103	83.1	87.4	125	5.0

TABLE 3 (Instructions, Page 58)

Completion of Table 3 is required for all external outfalls which discharge process wastewater.

Partial completion of Table 3 **is required** for all **external outfalls** which discharge non-process wastewater and stormwater associated with industrial activities commingled with other wastestreams (see instructions for additional guidance).

Table 3 for Outfall No.: 004

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (μg/L)*	MAL (μg/L)*
Acrylonitrile	<43.0	<43.0	<43.0	<43.0	50
Anthracene	<0.35	<0.35	<0.35	<0.35	10
Benzene	<1.0	<1.0	<1.0	<1.0	10
Benzidine	<0.66	<0.67	<0.69	<0.66	50
Benzo(a)anthracene	<0.38	<0.39	<0.40	<0.38	5
Benzo(a)pyrene	<0.85	<0.87	<0.89	<0.85	5
Bis(2-chloroethyl)ether	<0.72	<0.73	<0.76	<0.72	10
Bis(2-ethylhexyl)phthalate	<2.2	<2.2	<2.3	<2.2	10
Bromodichloromethane [Dichlorobromomethane]	2.0	3.0	2.0	0.5	10
Bromoform	<2.0	<2.0	<2.0	<2.0	10
Carbon tetrachloride	<2.0	<2.0	<2.0	<2.0	2
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	10
Chlorodibromomethane [Dibromochloromethane]	<1.0	<1.0	<1.0	<1.0	10
Chloroform	7.0	8.0	5.0	4.0	10
Chrysene	<0.57	<0.58	<0.60	<0.57	5
m-Cresol [3-Methylphenol]	<1.3	<1.3	<1.4	<1.3	10
o-Cresol [2-Methylphenol]	<1.0	<1.0	<1.1	<1.0	10
p-Cresol [4-Methylphenol]	<1.3	<1.3	<1.4	<1.3	10
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0	10
m-Dichlorobenzene [1,3-Dichlorobenzene]	<0.53	<0.54	<0.56	<0.53	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)*
o-Dichlorobenzene [1,2-Dichlorobenzene]	<0.41	<0.42	<0.43	<0.41	10
p-Dichlorobenzene [1,4-Dichlorobenzene]	<0.25	<0.26	<0.26	<0.25	10
3,3'-Dichlorobenzidine	<0.88	<0.90	<0.92	<0.88	5
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	10
1,1-Dichloroethene [1,1-Dichloroethylene]	<1.0	<1.0	<1.0	<1.0	10
Dichloromethane [Methylene chloride]	<1.0	<1.0	<1.0	<1.0	20
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	10
1,3-Dichloropropene [1,3-Dichloropropylene]	<2.0	<2.0	<2.0	<2.0	10
2,4-Dimethylphenol	<0.53	<0.54	<0.56	<0.53	10
Di-n-Butyl phthalate	<1.2	<1.2	<1.3	<1.2	10
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	10
Fluoride	<0.50	<0.50	<0.50	<0.50	500
Hexachlorobenzene	<0.69	<0.70	<0.72	<0.69	5
Hexachlorobutadiene	<0.41	<0.42	<0.43	<0.41	10
Hexachlorocyclopentadiene	<0.35	<0.36	<0.37	<0.35	10
Hexachloroethane	<0.47	0.48	<0.49	<0.47	20
Methyl ethyl ketone	<4.0	<4.0	<4.0	<4.0	50
Nitrobenzene	<0.91	<0.93	<0.96	<0.91	10
N-Nitrosodiethylamine	<5.0	<5.1	<5.3	<5.0	20
N-Nitroso-di-n-butylamine	<5.0	<5.1	<5.3	<5.0	20
Nonylphenol	<5.0	<5.1	<5.25	<5.0	333
Pentachlorobenzene	<3.0	<3.1	<3.2	<3.0	20
Pentachlorophenol	<0.50	<0.51	<0.53	<0.50	5
Phenanthrene	<0.44	<0.45	<0.46	<0.44	10
Polychlorinated biphenyls (PCBs) (**)	<0.03	<0.03	<0.03	<0.03	0.2
Pyridine	<0.35	<0.36	<0.37	<0.35	20
,2,4,5-Tetrachlorobenzene	<5.0	<5.1	<5.3	<5.0	20
,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	10
[etrachloroethene Tetrachloroethylene]	<1.0	<1.0	<1.0	<1.0	10
Coluene	<1.0	<1.0	<1.0	<1.0	10
,1,1-Trichloroethane	<1.0	<1.0	<1.0	<1.0	10
1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	10
richloroethene Frichloroethylene]	<1.0	<1.0	<1.0	<1.0	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)*
2,4,5-Trichlorophenol	<0.85	<0.87	<0.89	<0.85	50
TTHM (Total trihalomethanes)	10.5	12.5	8.5	6.0	10
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	10

 ^(*) Indicate units if different from μg/L.
 (**) Total of detects for PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, and PCB-1016. If all non-detects, enter the highest non-detect preceded by a "<".

TABLE 4 (Instructions, Pages 58-59)

Partial completion of Table 4 is required for each external outfall based on the conditions below.

a	. T	rib	utyltin	ı	
	0.	· ····	occivates	HOIL	lustrial/commercial facility which currently or proposes to directly dispose the types of operations listed below or a domestic facility which currently or wastewater from the types of industrial/commercial operations listed below?
			Yes	\boxtimes	No
	If ap	yes pro	s, check t priate te	he box sting	next to each of the following criteria which apply and provide the results in Table 4 below (check all that apply).
			Manufac	turers	and formulators of tributyltin or related compounds.
			Painting	of shi	ps, boats and marine structures.
			Ship and	boat l	ouilding and repairing.
			Ship and	boat o	eleaning, salvage, wrecking and scaling.
		(Operation	n and	maintenance of marine cargo handling facilities and marinas.
		1	Facilities	engag	ged in wood preserving.
		Y	Any other which the	r indu ere is a	strial/commercial facility for which tributyltin is known to be present, or for any reason to believe that tributyltin may be present in the effluent.
b.	Er				charge to saltwater)
a.	Th En	is fa tero	icility dis	charg cteria	es/proposes to discharge directly into saltwater receiving waters and are expected to be present in the discharge based on facility processes.
			Yes	\boxtimes	No
1.		Do	mestic w	astew	ater is/will be discharged.
		\boxtimes	Yes		No
	If y	es	to eithe	r ques	stion, provide the appropriate testing results in Table 4 below.
c.	E.	col	i (discl	harg	e to freshwater)
a.	Thi coli	s fa i bad	cility disc eteria are	charge expe	es/proposes to discharge directly into freshwater receiving waters and <i>E.</i> cted to be present in the discharge based on facility processes.
			Yes	\boxtimes	No
1.		Doi	nestic w	astewa	ater is/will be discharged.
		\boxtimes	Yes		No
	If y	es t	o eithei	r ques	tion, provide the appropriate testing results in Table 4 below.

Table 4 for Outfall No.: 004

Samples are (check one): ☐ Composites ☒ Grabs

Pollutant	Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin (μg/L)	N/A	N/A	N/A	N/A	0.010
Enterococci (cfu or MPN/100 mL)					N/A
E. coli (cfu or MPN/100 mL)	1.0	1.0	1.0	8.2	N/A

TABLE 6 (Instructions, Page 59)

Completion of Table 6 is required for all external outfalls.

Table 5 for Outfall No.: 004

Samples are (check one): ☐ Composites ☐ Grabs

Pollutants	Believed Present	Believed Absent	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)	MAL (μg/L)*
Bromide		×					400
Color (PCU)			<5.0	N/A	N/A	N/A	_
Nitrate-Nitrite (as N)		Ø					_
Sulfide (as S)		×					_
Sulfite (as SO ₃)		Ø					-
Surfactants		×					-
Boron, total		⊠					20
Cobalt, total		×					0.3
Iron, total		⊠					7
Magnesium, total	×		9.94	N/A	N/A	N/A	20
Manganese, total	×		0.029	N/A	N/A	N/A	0.5
Molybdenum, total		⊠					1
Tin, total		⊠					5
Titanium, total		×					30

^{*} Indicate units if different from µg/L.

TABLE 7 (Instructions, Page 60)

Check the box next to any of the industrial categories applicable to this facility. If no categories are applicable, check N/A. If GC/MS testing is required, check the box provided to confirm the testing results for the appropriate parameters are provided with the application.

Table 6 for Applicable Industrial Categories

Ind	ustrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
	Adhesives and Sealants	1	□ Yes	□ Yes	□ Yes	No No
		467	□ Yes	□ Yes	□ Yes	
	Auto and Other Laundries		□ Yes	□ Yes	□ Yes	No
	Battery Manufacturing	461	□ Yes	No	□ Yes	□ Yes
	Coal Mining	434	No	No	No No	No
	Coil Coating	465	□ Yes	□ Yes	□ Yes	No
	Copper Forming	468	□ Yes	□ Yes	□ Yes	No
	Electric and Electronic Components	469	□ Yes	□ Yes	□ Yes	No
	Electroplating	413	□ Yes	□ Yes	□ Yes	□ Yes
	Explosives Manufacturing	457	No	□ Yes	□ Yes	No
	Foundries		□ Yes	□ Yes	□ Yes	No
	Gum and Wood Chemicals - Subparts A,B,C,E	454	□ Yes	□ Yes	No	No
	Gum and Wood Chemicals - Subparts D,F	454	□ Yes	□ Yes	□ Yes	No
	Inorganic Chemicals Manufacturing	415	□ Yes	□ Yes	□ Yes	No
	Iron and Steel Manufacturing	420	□ Yes	□ Yes	□ Yes	No
	Leather Tanning and Finishing	425	□ Yes	□ Yes	□ Yes	No
	Mechanical Products Manufacturing		□ Yes	□ Yes	□ Yes	No
	Nonferrous Metals Manufacturing	421,471	□ Yes	□ Yes	□ Yes	No
	Oil and Gas Extraction - Subparts A, D, E, F, G, H	435	□ Yes	□ Yes	□ Yes	□ Yes
	Ore Mining - Subpart B	440	No	□ Yes	No No	No
\boxtimes	Organic Chemicals Manufacturing	414	⊠ Yes	⊠ Yes	⊠ Yes	No
	Paint and Ink Formulation	446,447	□ Yes	□ Yes	□ Yes	⊠ Yes
	Pesticides	455	□ Yes	□ Yes	□ Yes	No
	Petroleum Refining	419	□ Yes	No	No No	□ Yes
	Pharmaceutical Preparations	439	□ Yes	□ Yes	□ Yes	No
	Photographic Equipment and Supplies	459	□ Yes	□ Yes	□ Yes	No
	Plastic and Synthetic Materials Manufacturing	414	□ Yes	□ Yes	□ Yes	No
	Plastic Processing	463	□ Yes	No	No No	□ Yes
	Porcelain Enameling	466	No	No	No	No
	Printing and Publishing		□ Yes	□ Yes	□ Yes	No
	Pulp and Paperboard Mills - Subpart C	430	_ ×	□ Yes	- res	□ Yes
	Pulp and Paperboard Mills - Subparts F, K	430	_ ·	□ Yes		□ Yes
3	Pulp and Paperboard Mills - Subparts A, B, D, G, H	430	□ Yes	□ Yes	D *	o *
ב	Pulp and Paperboard Mills - Subparts I, J, L	430	□ Yes	□ Yes	D *	П *
	Pulp and Paperboard Mills - Subpart E	430	□ Yes	□ Yes		□ Yes
כ	Rubber Processing	428	□ Yes	⊠ Yes	□ Yes	□ * N-
3	Soap and Detergent Manufacturing	417	□ Yes	□ Yes	□ Yes	No

Industrial Category		40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11	
	Steam Electric Power Plants	423	□ Yes	□ Yes	No	No	
	Textile Mills (Not Subpart C)	410	□ Yes	□ Yes	□ Yes	No	
	Timber Products Processing	429	□ Yes	□ Yes	□ Yes	□ Yes	

^{*} Test if believed present.

TABLES 8, 9, 10, and 11 (Instructions, Page 60)

Completion of Tables 8, 9, 10, and 11 is required as specified in Table 7 for all external outfalls that contain process wastewater.

Completion of Tables 8, 9, 10, and 11 may be required for types of industry not specified in Table 7 for specific parameters that are believed to be present in the wastewater.

Table 7 for Outfall No.: <u>004</u>: Volatile Compounds

Samples are (check one): 🛮 🖎 Composi	tes 🗆	Grabs			
Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
Acrolein	<8.0	N/A	N/A	N/A	50
Acrylonitrile	<43.0	<43.0	<43.0	<43.0	50
Benzene	<1.0	<1.0	<1.0	<1.0	10
Bromoform	<2.0	<2.0	<2.0	<2.0	10
Carbon tetrachloride	<2.0	<2.0	<2.0	<2.0	2
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	10
Chlorodibromomethane	2.0	9.0	5.0	4.0	10
Chloroethane	<1.0	N/A	N/A	N/A	50
2-Chloroethylvinyl ether	<10.0	N/A	N/A	N/A	10
Chloroform	7.0	8.0	22.0	31.0	10
Dichlorobromomethane [Bromodichloromethane]	2.0	3.0	2.0	1.0	10
1,1-Dichloroethane	<1.0	N/A	N/A	N/A	10
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	10
1,1-Dichloroethylene [1,1-Dichloroethene]	<1.0	<1.0	<1.0	<1.0	10
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	10
1,3-Dichloropropylene [1,3-Dichloropropene]	<2.0	<2.0	<2.0	<2.0	10
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	10
Methyl bromide [Bromomethane]	<2.0	N/A	N/A	N/A	50
Methyl chloride [Chloromethane]	<1.0	N/A	N/A	N/A	50
Methylene chloride [Dichloromethane]	<1.0	<1.0	<1.0	<1.0	20
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	10
Tetrachloroethylene [Tetrachloroethene]	<1.0	<1.0	<1.0	<1.0	10
Toluene	<1.0	<1.0	<1.0	<1.0	10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]	<1.0	N/A	N/A	N/A	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
1,1,1-Trichloroethane	<1.0	<1.0	<1.0	<1.0	10
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	10
Trichloroethylene [Trichloroethene]	<1.0	<1.0	<1.0	<1.0	10
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	10

^{*} Indicate units if different from µg/L.

Table 8 for Outfall No.: <u>004</u> : Acid Compounds

Samples are (check one): \square Composites \square Grabs

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
2-Chlorophenol	<0.50	N/A	N/A	N/A	10
2,4-Dichlorophenol	<0.69	N/A	N/A	N/A	10
2,4-Dimethylphenol	<0.53	<0.53	<0.53	<0.53	10
4,6-Dinitro-o-cresol	<0.66	N/A	N/A	N/A	50
2,4-Dinitrophenol	<1.40	N/A	N/A	N/A	50
2-Nitrophenol	<0.88	N/A	N/A	N/A	20
4-Nitrophenol	<1.10	N/A	N/A	N/A	50
p-Chloro-m-cresol	<0.53	N/A	N/A	N/A	10
Pentachlorophenol	<0.50	<0.51	<0.53	<0.50	5
Phenol	<0.44	N/A	N/A	N/A	10
2,4,6-Trichlorophenol	<0.79	N/A	N/A	N/A	10

^{*} Indicate units if different from μg/L.

Table 9 for Outfall No.: <u>004</u>: Base/Neutral Compounds

Samples are (check one): ⊠ Composites □ Grabs

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Acenaphthene	<0.28	N/A	N/A	N/A	10
Acenaphthylene	<0.47	N/A	N/A	N/A	10
Anthracene	<0.35	<0.36	<0.37	<0.35	10
Benzidine	<0.66	<0.67	<0.69	<0.66	50
Benzo(a)anthracene	<0.38	<0.39	<0.40	<0.38	5
Benzo(a)pyrene	<0.85	<0.87	<0.89	<0.85	5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]	<0.57	N/A	N/A	N/A	10
Benzo(ghi)perylene	<0.63	N/A	N/A	N/A	20
Benzo(k)fluoranthene	<0.57	N/A	N/A	N/A	5
Bis(2-chloroethoxy)methane	<0.35	N/A	N/A	N/A	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
Bis(2-chloroethyl)ether	<0.72	<0.73	<0.76	<0.72	10
Bis(2-chloroisopropyl)ether	<0.85	N/A	N/A	N/A	10
Bis(2-ethylhexyl)phthalate	<2.2	N/A	N/A	N/A	10
4-Bromophenyl phenyl ether	<0.41	N/A	N/A	N/A	10
Butylbenzyl phthalate	<0.69	N/A	N/A	N/A	10
2-Chloronaphthalene	<0.28	N/A	N/A	N/A	10
4-Chlorophenyl phenyl ether	<0.66	N/A	N/A	N/A	10
Chrysene	<0.57	<0.57	<0.57	<0.57	5
Dibenzo(a,h)anthracene	<0.69	N/A	N/A	N/A	5
1,2-Dichlorobenzene [o-Dichlorobenzene]	<0.41	<0.42	<0.43	<0.41	10
1,3-Dichlorobenzene [m-Dichlorobenzene]	<0.53	<0.54	<0.56	<0.53	10
1,4-Dichlorobenzene [p-Dichlorobenzene]	<0.25	<0.26	<0.26	<0.25	10
3,3'-Dichlorobenzidine	<0.88	<0.90	<0.92	<0.88	5
Diethyl phthalate	<0.63	N/A	N/A	N/A	10
Dimethyl phthalate	<0.72	N/A	N/A	N/A	10
Di-n-butyl phthalate	<1.2	<1.2	<1.3	<1.2	10
2,4-Dinitrotoluene	<0.97	N/A	N/A	N/A	10
2,6-Dinitrotoluene	<1.2	N/A	N/A	N/A	10
Di-n-octyl phthalate	<2.8	N/A	N/A	N/A	10
1,2-Diphenylhydrazine (as Azobenzene)	<0.22	N/A	N/A	N/A	20
Fluoranthene	<0.44	N/A	N/A	N/A	10
Fluorene	<0.47	N/A	N/A	N/A	10
Hexachlorobenzene	<0.69	<0.70	<0.72	<0.69	5
Hexachlorobutadiene	<0.41	<0.42	<0.43	<0.41	10
Hexachlorocyclopentadiene	<0.35	<0.36	<0.37	<0.35	10
Hexachloroethane	<0.47	<0.48	<0.49	<0.47	20
Indeno(1,2,3-cd)pyrene	<0.22	N/A	N/A	N/A	5
Isophorone	<0.28	N/A	N/A	N/A	10
Naphthalene	<0.31	N/A	N/A	N/A	10
Nitrobenzene	<0.91	<0.93	<0.96	<0.91	10
N-Nitrosodimethylamine	<0.79	N/A	N/A	N/A	50
N-Nitrosodi-n-propylamine	<0.72	N/A	N/A	N/A	20
N-Nitrosodiphenylamine	<0.47	N/A	N/A	N/A	20
Phenanthrene	<0.44	<0.45	<0.46	<0.44	10
Pyrene	<0.57	N/A	N/A	N/A	10
1,2,4-Trichlorobenzene	<0.53	N/A	N/A	N/A	10

^{*} Indicate units if different from µg/L.

Table 10 for Outfall No.: <u>004</u>: Pesticides

Samples are (check one): ☐ Composites ☐ Grabs

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
Aldrin	<0.004	N/A	N/A	N/A	0.01
alpha-BHC [alpha-Hexachlorocyclohexane]	<0.003	N/A	N/A	N/A	0.05
beta-BHC [beta-Hexachlorocyclohexane]	<0.004	N/A	N/A	N/A	0.05
gamma-BHC [gamma-Hexachlorocyclohexane]	<0.004	N/A	N/A	N/A	0.05
delta-BHC [delta-Hexachlorocyclohexane]	<0.006	N/A	N/A	N/A	0.05
Chlordane	<0.1	N/A	N/A	N/A	0.2
4,4'-DDT	<0.004	N/A	N/A	N/A	0.02
4,4'-DDE	<0.009	N/A	N/A	N/A	0.02
4,4'-DDD	<0.002	N/A	N/A	N/A	0.1
Dieldrin	<0.005	N/A	N/A	N/A	0.02
Endosulfan I (alpha)	<0.007	N/A	N/A	N/A	0.02
Endosulfan II (beta)	<0.004	N/A	N/A	N/A	0.02
Endosulfan sulfate	<0.005	N/A	N/A	N/A	0.02
Endrin	<0.004	N/A	N/A	N/A	0.02
Endrin aldehyde	<0.003	N/A	N/A	N/A	0.02
Heptachlor	<0.004	N/A	N/A	N/A	0.01
Heptachlor epoxide	<0.004	N/A	N/A	N/A	0.01
PCB 1242	<0.03	<0.03	<0.03	<0.03	0.01
PCB 1254	<0.03	<0.03	<0.03	<0.03	
PCB 1221	<0.03	<0.03	<0.03	<0.03	0.2
PCB 1232	<0.03	<0.03	<0.03		0.2
PCB 1248	<0.03	<0.03	<0.03	<0.03	0.2
PCB 1260	<0.03	<0.03	<0.03	<0.03	0.2
PCB 1016	<0.03	<0.03	<0.03	<0.03	0.2
Toxaphene	<0.10	N/A	N/A	<0.03	0.2
Y 31 - 1 - 10 3100 - 0	10120	A1/1X	14/14	N/A	0.3

^{*} Indicate units if different from µg/L.

Attachment:

TABLE 12 (DIOXINS/FURAN COMPOUNDS)

Complete of Table 12 is required for external outfalls, as directed below. (Instructions, Pages 60-61)

1.	Indicate which compound(s) are manufactured or used at the facili description of the conditions of its/their presence at the facility (ch	ty and provi eck all that a	de a brief pply).
	2,4,5-trichlorophenoxy acetic acid (2,4,5-T)	CASRN	93-76-5
	2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP)	CASRN	93-72-1

		2-(2,4,5-	trichl	oroph	enoxy) ethyl 2,2-dichloropropionate (Erbon)	CASRN	136-25-4
		o,o-dim	ethyl (0-(2,4,	5-trichlorophenyl) phosphorothioate (Ronnel)	CASRN	299-84-3
		2,4,5-tri	chlore	pheno	ol (TCP)	CASRN	95-95 - 4
		hexachlo	rophe	ene (H	CP)	CASRN	70-30-4
	\boxtimes	None of	the al	oove			
	Des	scription:]	<u>N/A</u>				
1.	1	tetrachlor	odibe	nzo-p-	anyone at the facility know or have any reason to dioxin (TCDD) or any congeners of TCDD may b discharge?	believe be presen	that 2,3,7,8- t in the
		Yes	\boxtimes	No			
	Des	cription: <u>1</u>	N/A				
If :	yes to	either Ite	ems a	or b, c	complete Table 12 as instructed.		

Table 11 for Outfall No.: N/A

Samples are (check one): ☐ Composites ☐ Grabs

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDD	1					10
1,2,3,7,8-PeCDD	1.0					50
2,3,7,8-HxCDDs	0.1					50
1,2,3,4,6,7,8-HpCDD	0.01					50
2,3,7,8-TCDF	0.1					10
1,2,3,7,8-PeCDF	0.03					50
2,3,4,7,8-PeCDF	0.3					50
2,3,7,8-HxCDFs	0.1					50
2,3,4,7,8-HpCDFs	0.01					50
OCDD	0.0003					100
OCDF .	0.0003					100
PCB 77	0.0001					500
PCB 81	0.0003					500
PCB 126	0.1					500
PCB 169	0.03					500
Total						

TABLE 13 (HAZARDOUS SUBSTANCES)

Complete Table 13 is required for all external outfalls as directed below. (Instructions, Page 61)

		discharg	e?	ollutants listed	m the instru	ctions (page	s 55-62) beli	leved presen	it in the
		Yes	\boxtimes	No					
2.		Are there the disch	e polluta arge an	ants listed in It d have not bee	em 1.c. of Te n analyticall	chnical Repoy	ort 1.0 which elsewhere ir	are believe this applica	d present in ation?
		Yes	\boxtimes	No					
If	y es t	o either I	tems a c	o r b, complete	Table 13 as i	instructed.			
		2 for Out		a					
Sa	mpie	es are (ch	ieck one	e): 🛮 Con	posites	□ Grabs			
				7	· posites	LI GIAUS			
	ollut				Sample 1	Sample 2	Sample 3	Sample	Analytical
				CASRN				Sample 4 (µg/L)	Analytical Method
					Sample 1	Sample 2	Sample 3		37/
					Sample 1	Sample 2	Sample 3		37/
					Sample 1	Sample 2	Sample 3		37/
					Sample 1	Sample 2	Sample 3		37/
					Sample 1	Sample 2	Sample 3		37/

Table 13 for Outfall No.: 006

Samples are (check one): \square Composite \square Grab

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
BOD (5-day)	<2.0	<2.0	<2.0	<2.0
CBOD (5-day)	<2.0	<2.0	<2.0	<2.0
Chemical oxygen demand	46.0	46.5	44.0	49.0
Total organic carbon	11.0	11.4	10.9	7.0
Dissolved oxygen	7.4	7.8	7.5	7.2
Ammonia nitrogen	0.125	0.125	0.41	0.125
Total suspended solids	<5.0	<5.0	<5.0	<5.0
Nitrate nitrogen	<0.50	<0.50	<0.50	<0.50
Total organic nitrogen	1.10	0.923	0.556	0.816
Total phosphorus	1.02	0.61	0.88	0.73
Oil and grease	<5.0	<5.0	<5.0	<5.0
Total residual chlorine	0.2	1.55	0.04	0.19
Total dissolved solids	2,400	3,250	3,750	2,840
Sulfate	1,370	1,970	2,160	1,620
Chloride	120	172	243	233
Fluoride	<0.50	<0.50	<0.50	<0.50
Total alkalinity (mg/L as CaCO3)	190	50	48	48
Temperature (°F)	81.5	85.8	80.4	88.0
pH (standard units)	7.8	7.4	7.2	7.8

Table 14 for Outfall No.: 006

Samples are (check one): ☐ Composites ☐ Grabs

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (μg/L)
Aluminum, total	73.3	18.8	27.9	19.8	2.5
Antimony, total	0.8	0.7	0.8	0.8	5
Arsenic, total	4.7	3.6	4.3	3.4	0.5
Barium, total	124	93.6	138	98.9	3
Beryllium, total	<0.40	<0.40	<0.40	<0.40	0.5
Cadmium, total	<0.40	<0.40	<0.40	<0.40	1
Chromium, total	17.9	15.6	11.6	7.5	3
Chromium, hexavalent	<4.7	<4.7	<4.7	<4.7	3
Chromium, trivalent	17.9	15.6	11.6	7.5	N/A
Copper, total	7.0	4.3	5.5	5-4	2
Cyanide, available	<9.0	<9.0	<9.0	<9.0	2/10
Lead, total	<0.4	<0.4	<0.4	<0.4	0.5
Mercury, total	0.00255	0.00277	0.00315	0.01640	0.005/0.0005

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (μg/L)
Nickel, total	9.4	9.4	10.3	6.7	2
Selenium, total	<3.2	<3.2	<3.2	<3.2	5
Silver, total	<0.4	<0.4	<0.4	<0.4	0.5
Thallium, total	<0.4	<0.4	<0.4	<0.4	0.5
Zinc, total	87.2	120	166	125	5.0

TABLE 3 (Instructions, Page 58)

Completion of Table 3 is required for all external outfalls which discharge process wastewater.

Partial completion of Table 3 **is required** for all **external outfalls** which discharge non-process wastewater and stormwater associated with industrial activities commingled with other wastestreams (see instructions for additional guidance).

Table 15 for Outfall No.: <u>006</u>

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)*
Acrylonitrile	<43.0	<43.0	<43.0	<43.0	50
Anthracene	<0.35	<0.35	<0.35	<0.35	10
Benzene	<1.0	<1.0	<1.0	<1.0	10
Benzidine	<0.66	<0.66	<0.66	<0.66	50
Benzo(a)anthracene	<0.38	<0.38	<0.38	<0.38	5
Benzo(a)pyrene	<1.49	<0.85	<0.85	<0.85	5
Bis(2-chloroethyl)ether	<0.72	<0.72	<0.72	<0.72	10
Bis(2-ethylhexyl)phthalate	<2.2	<2.2	<2.3	<2.2	10
Bromodichloromethane [Dichlorobromomethane]	31	23	16	12	10
Bromoform	<2.0	<2.0	<2.0	<2.0	10
Carbon tetrachloride	<2.0	<2.0	<2.0	<2.0	2
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	10
Chlorodibromomethane [Dibromochloromethane]	7.0	6.0	7.0	6.0	10
Chloroform	97	61	21	16	10
Chrysene	<0.57	<0.57	<0.57	<0.57	5
m-Cresol [3-Methylphenol]	<1.3	<1.3	<1.3	<1.3	10
o-Cresol [2-Methylphenol]	<1.0	<1.0	<1.0	<1.0	10
p-Cresol [4-Methylphenol]	<1.3	<1.3	<1.3	<1.3	10
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0	10
m-Dichlorobenzene [1,3-Dichlorobenzene]	<0.53	<0.53	<0.53	<0.53	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)*
o-Dichlorobenzene [1,2-Dichlorobenzene]	<0.41	<0.41	<0.41	<0.41	10
p-Dichlorobenzene [1,4-Dichlorobenzene]	<0.25	<0.25	<0.25	<0.25	10
3,3'-Dichlorobenzidine	<0.88	<0.88	<0.88	<0.88	5
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	10
1,1-Dichloroethene [1,1-Dichloroethylene]	<1.0	<1.0	<1.0	<1.0	10
Dichloromethane [Methylene chloride]	<1.0	<1.0	<1.0	<1.0	20
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	10
1,3-Dichloropropene [1,3-Dichloropropylene]	<2.0	<2.0	<2.0	<2.0	10
2,4-Dimethylphenol	<0.53	<0.53	<0.53	<0.53	10
Di-n-Butyl phthalate	<1.2	<1.2	<1.3	<1.2	10
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	10
Fluoride	<0.50	<0.50	<0.50	<0.50	500
Hexachlorobenzene	<0.69	<0.69	<0.69	<0.69	5
Hexachlorobutadiene	<0.41	<0.41	<0.41	<0.41	10
Hexachlorocyclopentadiene	<0.35	<0.35	<0.35	<0.35	10
Hexachloroethane	<0.47	0.47	0.47	<0.47	20
Methyl ethyl ketone	<4.0	<4.0	<4.0	<4.0	50
Nitrobenzene	<0.91	<0.91	<0.91	<0.91	10
N-Nitrosodiethylamine	<5.0	<5.0	<5.0	<5.0	20
N-Nitroso-di-n-butylamine	<5.0	<5.0	<5.0	<5.0	20
Nonylphenol	<5.0	<5.0	<5.0	<5.0	333
Pentachlorobenzene	<3.0	<3.0	<3.0	<3.0	20
Pentachlorophenol	<0.50	<0.50	<0.50	<0.50	5
Phenanthrene	<0.44	<0.44	<0.44	<0.44	10
Polychlorinated biphenyls (PCBs) (**)	<0.03	<0.03	<0.03	<0.03	0.2
Pyridine	<0.35	<0.35	<0.35	<0.35	20
1,2,4,5-Tetrachlorobenzene	<5.0	<5.0	<5.0	<5.0	20
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	10
Tetrachloroethene [Tetrachloroethylene]	<1.0	<1.0	<1.0	<1.0	10
Toluene	<1.0	<1.0	<1.0	<1.0	10
1,1,1-Trichloroethane	<1.0	<1.0	<1.0	<1.0	10
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)*
Trichloroethene [Trichloroethylene]	<1.0	<1.0	<1.0	<1.0	10
2,4,5-Trichlorophenol	<0.85	<0.85	<0.85	<0.85	50
TTHM (Total trihalomethanes)	136	91	44	35	10
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	10

Indicate units if different from $\mu g/L$. Total of detects for PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, and PCB-1016. If all non-detects, enter the highest non-detect preceded by a "<".

TABLE 4 (Instructions, Pages 58-59)

d. Tributyltin

Partial completion of Table 4 is required for each external outfall based on the conditions below.

	of wa	astewater	r from	the	rial/commercial facility which currently or proposes to directly dispose types of operations listed below or a domestic facility which currently or tewater from the types of industrial/commercial operations listed below?
		Yes	\boxtimes	No	
					ext to each of the following criteria which apply and provide the alts in Table 4 below (check all that apply).
		Painting	g of sh	ips,	d formulators of tributyltin or related compounds. boats and marine structures.
					ding and repairing.
					ning, salvage, wrecking and scaling.
		•			intenance of marine cargo handling facilities and marinas.
			_	_	in wood preserving. ial/commercial facility for which tributyltin is known to be present, or for
					reason to believe that tributyltin may be present in the effluent.
e.	Ent	erococ	ci (di	sch	arge to saltwater)
b.	This Ente	facility d crococci b	lischar acteri	ges/ a are	proposes to discharge directly into saltwater receiving waters and expected to be present in the discharge based on facility processes.
		☐ Yes		\boxtimes	No
3.	I	Domestic	waste	wate	er is/will be discharged.
		⊠ Yes			No
	If ye	s to eith	ı er qu	estic	on, provide the appropriate testing results in Table 4 below.
f.	<i>E. c</i>	oli (dis	char	ge i	to freshwater)
b.	This coli l	facility d oacteria a	lischar are exp	ges/ ecte	proposes to discharge directly into freshwater receiving waters $\mathbf{and}\ E$. ed to be present in the discharge based on facility processes.
		□ Yes	D	₹	No
4.	Ι	Oomestic	waste	wate	er is/will be discharged.
		⊠ Yes]	No
	If we	e to eith	or an	octio	on provide the appropriate testing results in Table 4 below

Table 16 for Outfall No.: 006

Samples are (check one): ☐ Composites ☒ Grabs

Pollutant	Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin (μg/L)	N/A	N/A	N/A	N/A	0.010
Enterococci (cfu or MPN/100 mL)					N/A
E. coli (cfu or MPN/100 mL)	<2.0	<2.0	<2.0	<2.0	N/A

TABLE 6 (Instructions, Page 59)

Completion of Table 6 is required for all external outfalls.

Table 17 for Outfall No.: 006

Samples are (check one): ☐ Composites ☐ Grabs

Pollutants	Believed Present	Believed Absent	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)	MAL (μg/L)*
Bromide		×					400
Color (PCU)	×		<5.0	N/A	N/A	N/A	
Nitrate-Nitrite (as N)		×					
Sulfide (as S)		×					
Sulfite (as SO3)		×					_
Surfactants		×					_
Boron, total		⊠					20
Cobalt, total		×					0.3
Iron, total		⊠		*****			7
Magnesium, total	Ø		11.6	N/A	N/A	N/A	20
Manganese, total	⊠		0.007	N/A	N/A	N/A	0.5
Molybdenum, total		Ø					1
Tin, total							5
Titanium, total		×					30

^{*} Indicate units if different from µg/L.

TABLE 7 (Instructions, Page 60)

Check the box next to any of the industrial categories applicable to this facility. If no categories are applicable, check N/A. If GC/MS testing is required, check the box provided to confirm the testing results for the appropriate parameters are provided with the application.

□ N/A

Table 18 for Applicable Industrial Categories

Indu	strial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
	Adhesives and Sealants		□ Yes	□ Yes	□ Yes	No
	Aluminum Forming	467	□ Yes	□ Yes	□ Yes	No
	Auto and Other Laundries	407	□ Yes	□ Yes	□ Yes	□ Yes
	Battery Manufacturing	461	□ Yes	No No	□ Yes	No
	Coal Mining	434	No No	No	No	No
	Coil Coating	465	□ Yes	□ Yes	□ Yes	No
	Copper Forming	468	□ Yes	□ Yes	□ Yes	No
	Electric and Electronic Components	469	□ Yes	□ Yes	□ Yes	□ Yes
	Electroplating	413	☐ Yes	□ Yes	□ Yes	No
	Explosives Manufacturing	457	No	□ Yes	□ Yes	No
	Foundries	437	□ Yes	□ Yes	□ Yes	No
0	Gum and Wood Chemicals - Subparts A,B,C,E	454	□ Yes	□ Yes	No	No
	Gum and Wood Chemicals - Subparts 17,5,0,5	454	□ Yes	□ Yes	□ Yes	No
	Inorganic Chemicals Manufacturing	415	□ Yes	□ Yes	□ Yes	No
_	Iron and Steel Manufacturing	420	□ Yes	□ Yes	□ Yes	No
	Leather Tanning and Finishing	425	□ Yes	□ Yes	□ Yes	No
	Mechanical Products Manufacturing	1-5	□ Yes	□ Yes	□ Yes	No
	Nonferrous Metals Manufacturing	421,471	□ Yes	□ Yes	□ Yes	│ □ Yes
	Oil and Gas Extraction - Subparts A, D, E, F, G, H	435	□ Yes	□ Yes	□ Yes	No
	Ore Mining - Subpart B	440	No	□ Yes	No	No
×	Organic Chemicals Manufacturing	414	⊠ Yes	⊠ Yes	⊠ Yes	⊠ Yes
	Paint and Ink Formulation	446,447	□ Yes	□ Yes	□ Yes	No
	Pesticides	455	□ Yes	□ Yes	□ Yes	□ Yes
	Petroleum Refining	419	□ Yes	No	No	No
	Pharmaceutical Preparations	439	□ Yes	□ Yes	□ Yes	No
	Photographic Equipment and Supplies	459	□ Yes	□ Yes	□ Yes	No
	Plastic and Synthetic Materials Manufacturing	414	□ Yes	□ Yes	□ Yes	□ Yes
_	Plastic Processing	463	□ Yes	No	No	No
_	Porcelain Enameling	466	No	No	No	No
	Printing and Publishing	•	□ Yes	□ Yes	□ Yes	□ Yes
	Pulp and Paperboard Mills - Subpart C	430	· ·	□ Yes	o *	□ Yes
	Pulp and Paperboard Mills - Subparts F, K	430	_ *	□ Yes	o *	o *
	Pulp and Paperboard Mills - Subparts A, B, D, G, H	430	□ Yes	□ Yes	o *	_ *
_	Pulp and Paperboard Mills - Subparts I, J, L	430	□ Yes	□ Yes	o *	□ Yes
	Pulp and Paperboard Mills - Subpart E	430	□ Yes	□ Yes	□ Yes	o *
	Rubber Processing	428	□ Yes	□ Yes	□ Yes	No
	Soap and Detergent Manufacturing	417	□ Yes	□ Yes	□ Yes	No

Indu	strial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
	Steam Electric Power Plants	423	□ Yes	□ Yes	No	No
	Textile Mills (Not Subpart C)	410	□ Yes	□ Yes	□ Yes	No
	Timber Products Processing	429	□ Yes	□ Yes	□ Yes	□ Yes

^{*} Test if believed present.

TABLES 8, 9, 10, and 11 (Instructions, Page 60)

Completion of Tables 8, 9, 10, and 11 **is required** as specified in Table 7 for all **external outfalls** that contain process wastewater.

Completion of Tables 8, 9, 10, and 11 **may be required** for types of industry not specified in Table 7 for specific parameters that are believed to be present in the wastewater.

Table 19 for Outfall No.: 006: Volatile Compounds

<u>-</u>	-		
Samples are (check one):	\boxtimes	Composites	Grabs

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
Acrolein	<8.0	N/A	N/A	N/A	50
Acrylonitrile	<43.0	<43.0	<43.0	<43.0	50
Benzene	<1.0	<1.0	<1.0	<1.0	10
Bromoform	<2.0	<2.0	<2.0	<2.0	10
Carbon tetrachloride	<2.0	<2.0	<2.0	<2.0	2
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	10
Chlorodibromomethane	7.0	6.0	7.0	6.0	10
Chloroethane	<1.0	N/A	N/A	N/A	50
2-Chloroethylvinyl ether	<10.0	N/A	N/A	N/A	10
Chloroform	97.0	61.0	21.0	16.0	10
Dichlorobromomethane [Bromodichloromethane]	31.0	23.0	16.0	12.0	10
1,1-Dichloroethane	<1.0	N/A	N/A	N/A	10
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	10
1,1-Dichloroethylene [1,1-Dichloroethene]	<1.0	<1.0	<1.0	<1.0	10
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	10
1,3-Dichloropropylene [1,3-Dichloropropene]	<2.0	<2.0	<2.0	<2.0	10
Ethylbenzene	<1.0	<1.0	<1.0	<1.0	10
Methyl bromide [Bromomethane]	<2.0	N/A	N/A	N/A	50
Methyl chloride [Chloromethane]	<1.0	N/A	N/A	N/A	50
Methylene chloride [Dichloromethane]	<1.0	<1.0	<1.0	<1.0	20
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	10
Tetrachloroethylene [Tetrachloroethene]	<1.0	<1.0	<1.0	<1.0	10
Toluene	<1.0	<1.0	<1.0	<1.0	10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]	<1.0	N/A	N/A	N/A	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
1,1,1-Trichloroethane	<1.0	<1.0	<1.0	<1.0	10
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	10
Trichloroethylene [Trichloroethene]	<1.0	<1.0	<1.0	<1.0	10
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	10

^{*} Indicate units if different from µg/L.

Table 20 for Outfall No.: <u>006</u>: Acid Compounds

Samples are (check one): ☑ Composites ☐ Grabs

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
2-Chlorophenol	<0.50	N/A	N/A	N/A	10
2,4-Dichlorophenol	<0.69	N/A	N/A	N/A	10
2,4-Dimethylphenol	<0.53	<0.53	<0.53	<0.53	10
4,6-Dinitro-o-cresol	<0.66	N/A	N/A	N/A	50
2,4-Dinitrophenol	<1.40	N/A	N/A	N/A	50
2-Nitrophenol	<0.88	N/A	N/A	N/A	20
4-Nitrophenol	<1.10	N/A	N/A	N/A	50
p-Chloro-m-cresol	<0.53	N/A	N/A	N/A	10
Pentachlorophenol	<0.50	<0.50	<0.50	<0.50	5
Phenol	<0.44	N/A	N/A	N/A	10
2,4,6-Trichlorophenol	<0.79	N/A	N/A	N/A	10

^{*} Indicate units if different from µg/L.

Table 21 for Outfall No.: 006: Base/Neutral Compounds

Samples are (check one): \square Composites \square Grabs

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
Acenaphthene	<0.28	N/A	N/A	N/A	10
Acenaphthylene	<0.47	N/A	N/A	N/A	10
Anthracene	<0.35	<0.35	<0.35	<0.35	10
Benzidine	<0.66	<0.67	<0.69	<0.66	50
Benzo(a)anthracene	<0.40	<0.38	<0.38	<0.38	5
Benzo(a)pyrene	<1.49	<0.85	<0.85	<0.85	5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]	<0.57	N/A	N/A	N/A	10
Benzo(ghi)perylene	<0.63	N/A	N/A	N/A	20
Benzo(k)fluoranthene	<0.57	N/A	N/A	N/A	5
Bis(2-chloroethoxy)methane	<0.35	N/A	N/A	N/A	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
Bis(2-chloroethyl)ether	<0.72	<0.72	<0.72	<0.72	10
Bis(2-chloroisopropyl)ether	<0.85	N/A	N/A	N/A	10
Bis(2-ethylhexyl)phthalate	<2.2	N/A	N/A	N/A	10
4-Bromophenyl phenyl ether	<0.41	N/A	N/A	N/A	10
Butylbenzyl phthalate	<0.69	N/A	N/A	N/A	10
2-Chloronaphthalene	<0.28	N/A	N/A	N/A	10
4-Chlorophenyl phenyl ether	<0.66	N/A	N/A	N/A	10
Chrysene	<0.57	<0.57	<0.57	<0.57	5
Dibenzo(a,h)anthracene	1.2	N/A	N/A	N/A	5
1,2-Dichlorobenzene [o-Dichlorobenzene]	<0.41	<0.41	<0.41	<0.41	10
1,3-Dichlorobenzene [m-Dichlorobenzene]	<0.53	<0.53	<0.53	<0.53	10
1,4-Dichlorobenzene [p-Dichlorobenzene]	<0.25	<0.25	<0.25	<0.25	10
3,3'-Dichlorobenzidine	<0.88	<0.88	<0.88	<0.88	5
Diethyl phthalate	<0.63	N/A	N/A	N/A	10
Dimethyl phthalate	<0.72	N/A	N/A	N/A	10
Di-n-butyl phthalate	<1.2	<1.2	<1.2	<1.2	10
2,4-Dinitrotoluene	<0.97	N/A	N/A	N/A	10
2,6-Dinitrotoluene	<1.2	N/A	N/A	N/A	10
Di-n-octyl phthalate	<2.8	N/A	N/A	N/A	10
1,2-Diphenylhydrazine (as Azobenzene)	<0.22	N/A	N/A	N/A	20
Fluoranthene	<0.44	N/A	N/A	N/A	10
Fluorene	<0.47	N/A	N/A	N/A	10
Hexachlorobenzene	<0.69	<0.69	<0.69	<0.69	5
Hexachlorobutadiene	<0.41	<0.41	<0.41	<0.41	10
Hexachlorocyclopentadiene	<0.35	<0.35	<0.35	<0.35	10
Hexachloroethane	<0.47	<0.47	<0.47	<0.47	20
Indeno(1,2,3-ed)pyrene	1.14	N/A	N/A	N/A	5
Isophorone	<0.28	N/A	N/A	N/A	10
Naphthalene	<0.31	N/A	N/A	N/A	10
Nitrobenzene	<0.91	<0.91	<0.91	<0.91	10
N-Nitrosodimethylamine	<0.79	N/A	N/A	N/A	50
N-Nitrosodi-n-propylamine	<0.72	N/A	N/A	N/A	20
N-Nitrosodiphenylamine	<0.47	N/A	N/A	N/A	20
Phenanthrene	<0.44	<0.44	<0.44	<0.44	10
Pyrene	<0.57	N/A	N/A	N/A	10
1,2,4-Trichlorobenzene	<0.53	N/A	N/A	N/A	10

^{*} Indicate units if different from µg/L.

Table 22 for Outfall No.: 006: Pesticides

Samples are (check one): ☐ Composites ☐ Grabs

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (μg/L)
Aldrin	<0.004	N/A	N/A	N/A	0.01
alpha-BHC [alpha-Hexachlorocyclohexane]	<0.003	N/A	N/A	N/A	0.05
beta-BHC [beta-Hexachlorocyclohexane]	<0.004	N/A	N/A	N/A	0.05
gamma-BHC [gamma-Hexachlorocyclohexane]	<0.004	N/A	N/A	N/A	0.05
delta-BHC [delta-Hexachlorocyclohexane]	<0.006	N/A	N/A	N/A	0.05
Chlordane	<0.1	N/A	N/A	N/A	0.2
4,4'-DDT	<0.004	N/A	N/A	N/A	0.02
4,4'-DDE	<0.009	N/A	N/A	N/A	0.1
4,4'-DDD	<0.002	N/A	N/A	N/A	0.1
Dieldrin	<0.005	N/A	N/A	N/A	0.02
Endosulfan I (alpha)	<0.007	N/A	N/A	N/A	0.01
Endosulfan II (beta)	<0.004	N/A	N/A	N/A	0.02
Endosulfan sulfate	<0.005	N/A	N/A	N/A	0.1
Endrin	<0.004	N/A	N/A	N/A	0.02
Endrin aldehyde	<0.003	N/A	N/A	N/A	0.1
Heptachlor	<0.004	N/A	N/A	N/A	0.01
Heptachlor epoxide	<0.004	N/A	N/A	N/A	0.01
PCB 1242	<0.03	<0.03	<0.03	<0.03	0.2
PCB 1254	<0.03	<0.03	<0.03	<0.03	0.2
PCB 1221	<0.03	<0.03	<0.03	<0.03	0.2
PCB 1232	<0.03	<0.03	<0.03	<0.03	0.2
PCB 1248	<0.03	<0.03	<0.03	<0.03	0.2
PCB 1260	<0.03	<0.03	<0.03	<0.03	0.2
PCB 1016	<0.03	<0.03	<0.03	<0.03	0.2
Toxaphene	<0.10	N/A	N/A	N/A	0.3

^{*} Indicate units if different from µg/L.

Attachment:

TABLE 12 (DIOXINS/FURAN COMPOUNDS)

Complete of Table 12 is required for external outfalls, as directed below. (Instructions, Pages 60-61)

5-	Indicate which compound(s) are manufactured or used at the factoristion of the conditions of its/their presence at the facility (cility and provide check all that a	de a brief apply).
	2,4,5-trichlorophenoxy acetic acid (2,4,5-T)	CASRN	93-76-5
П	2-(2.4.5-trichlorophenoxy) propanoic acid (Silvex, 2.4.5-TP)	CASRN	93-72-1

		o,o-din 2,4,5-ti hexach	nethyl o richloro lorophe	-(2,4,5 pheno ne (H	noxy) ethyl 2,2-dichloropropionate (2000); -trichlorophenyl) phosphorothioate (Ronnel) (TCP)		299-84-3
	\boxtimes	None o	of the ab	ove			
6.		+ -+ 0 0 1	e applica	117.O-D-	anyone at the facility know or have any reason t dioxin (TCDD) or any congeners of TCDD may discharge?	to believe be preser	that 2,3,7,8- nt in the
		Yes	\boxtimes	No			
**	De	scription	n: <u>N/A</u> • Items a	orb.	complete Table 12 as instructed.		

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

Table 23 for Outfall No.: N/A

able 23 for Outfal amples are (check Compound	Toxicity Equivalent Factors	Composites Wastewater Concentration (ppq)	Grabs Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
	Pactors		(PP4)			10
2,3,7,8-TCDD	1					50
1,2,3,7,8-PeCDD	1.0					50
2,3,7,8-HxCDDs	0.1		-			50
1,2,3,4,6,7,8-HpCDD	0.01					10
2,3,7,8-TCDF	0.1		 			50
1,2,3,7,8-PeCDF	0.03					50
2,3,4,7,8-PeCDF	0.3					50
2,3,7,8-HxCDFs	0.1		-			50
2,3,4,7,8-HpCDFs	0.01					100
OCDD	0.0003					100
OCDF	0.0003		+			500
PCB 77	0.0001		+			500
PCB 81	0.0003					500
PCB 126	0.1			1		500
PCB 169	0.03					
Total						

TABLE 13 (HAZARDOUS SUBSTANCES)

Complete Table 13 is required for all external outfalls as directed below. (Instructions, Page 61)

7.	Are ther	e any po ge?	ollutan	its listed in t	the instruction	ons (pages 5	5-62) believe	ed present i	n the
8.	1 Ves	\boxtimes	No tants l and hav	isted in Iten ve not been	n 1.c. of Tech analytically	nnical Repor quantified e	t 1.0 which a lsewhere in t	re believed his applicat	present in ion?
Tob		⊠ r Items Outfall	No a or b No.: <u>N</u>	, complete T	Table 13 as ir		Sample 3	Sample	Analytical Method
	ollutant			CASRN	(μg/L)	(μg/L)	(μg/L)	4 (μg/L)	NACES

able 25 Pollutant Ana Pollutant	Grab Sample* Maximum	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)
	(mg/L)	(Hig/L)	6.54 (min)	-	1	
pH (standard units)	6.54 (max)				1	
Total suspended	5.8		5.8		1	-
solids Chemical oxygen	29.0		29.0		-	
demand			6.8		$\frac{1}{1}$	_
Total organic carbon	6.8		<5.0		1	0.0005
Oil and grease	<5.0		0.0015		1	0.003
Arsenic, total	0.0015		0.16		1	0.001
Barium, total	0.16		<0.0004		1	0.003
Cadmium, total	<0.0004	 	0.0005		1	+ -
Chromium, total	0.0005	ļ 	0.0005		1	0.003
Chromium, trivalent	0.0005	1	<0.0047		1	0.003
Chromium,	<0.0047		<0.0047		1	0.002
hexavalent	0.0017		0.0017		1	0.0005
Copper, total	<0.001/		<0.0004		1	0.00000
Lead, total	0.000014	1	0.000001		1	0.002
Mercury, total			0.002		1	0.005
Nickel, total	0.002		< 0.0032		1	0.0005
Selenium, total	<0.0032		<0.0004		$-\frac{1}{1}$	0.005
Silver, total	<0.0004	—	0.012			
1	0.012	storm event				

^{*} Taken during first 30 minutes of storm event ** Flow-weighted composite sample

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

Complete Table 18 as ble 26 Pollutant Analy Collutant	Grab Sample* Maximum	Sample** Maximum	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	
Mutant	(mg/L)	(mg/L)	0.06		11	
	0.06		0.5		1	
Phosphorous	0.5	·			11	
Nitrate-Nitrite	0.14		0.14	+	1	
Iron (Fe)	0.17		0.17		1	
Aluminum (Al)			3.0		1	
Biochemical Oxygen Demand	3.0	-	-			
					-	

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

^{*} Taken during first 30 minutes of storm event ** Flow-weighted composite sample

ible 27 Pollutant Ana Pollutant	Sample*	Compo Samp Maxin (mg	num	Average (mg/L)	Sa A	mposite mple** verage mg/L)	E	storm vents mpled		AL g/L)
ronuc	(mg/L)	(1118		7.81 (min)	4-		1	1		-
pH (standard units)	7.81 (max)			32.3			1_		+-	$\neg \neg$
pH (standard con- Total suspended	32.3		 	1	+			1		
colids		T		38	\bot		+	1		
Chemical oxygen	38	1		10.5			+	1		
1	10.5			5.0			+	1		0.0005
Total organic carbon	5.0			0.0033	1		+	1		0.003
Oil and grease	0.0033			0.122			十	1		0.001
Arsenic, total	0.122			<0.00	4		-+	1		0.003
Barium, total	<0.004			0.001	2		一十	1		
Cadmium, total	0.0012			0.001	2		一十			0.003
Chromium, total	t 0.0012	\dashv		0.00	12			1	\rightarrow	0.002
Chromium, trivalen	<0.0047	7						1	\longrightarrow	0.0005
Chromium, hexavalent		-+-		0.00				1	-+	0.00000
Copper, total	0.001			0.00				1		0.002
Lead, total	0.000			0.000				1		0.005
Mercury, total	0.0000			0.0		 		1		0.000
Nickel, total	0.001				032	 		1		0.00
Selenium, total	<0.00				0004	 		1		1 0.00
Silver, total	<0.00			0.	017					
Zinc total	0.01	of storm	ı event							
Zinc, total * Taken during fir ** Flow-weighted	rst 30 minutes	nple	55							

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

Grab Sample* Maximum	Sample** Maximum	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	
	(IIIg/ Z)	0.18		1	
	-	0.5		1	
				1	
				1	
0.76				1	
6.0	-	0.0			
-				+	
	Ţ				
		+			
-					
			$\overline{}$		
	Grab Sample* Maximum (mg/L) 0.18 0.5 0.48 0.76	Sample* Maximum (mg/L) 0.18 0.5 0.48 0.76 Sample** Maximum (mg/L)	Grab Sample* Maximum (mg/L) Composite Sample** Maximum (mg/L) Sample* Average (mg/L) 0.18 0.18 0.5 0.5 0.48 0.48 0.76 0.76 6.0 6.0	Grab Sample* Maximum (mg/L) Composite Sample** Average (mg/L) Sample** Average (mg/L) Sample** Average (mg/L) Sample** Average (mg/L) 0.18 0.18 0.5 0.48 0.76 0.76 0.76 6.0	

^{*} Taken during first 30 minutes of storm event
** Flow-weighted composite sample

able 29 Pollutant An	Grab Sample* Maximum	Composite Sample** Maximum (mg/L)	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)	
	(mg/L)	(Hig/L)	7.72 (min)	_	1		
pH (standard units)	7.72 (max)				1	_	
Total suspended	10.0		10.0		1		
solids			19.0		1		
Chemical oxygen	19.0				1	-	
demand	6.5	-	6.5		1	-	
Total organic carbon	<5.0		<5.0		1	0.0005	
Oil and grease	0.0041		0.0041		1	0.003	
Arsenic, total	0.1		0.1		1	0.001	
Barium, total	<0.0004		<0.0004	ļ		0.003	
Cadmium, total		\	0.0005		1	+	
Chromium, total	0.0005		0.0005		1		
Chromium, trivalent	0.0005	+	<0.0047		1	0.003	
Chromium,	<0.0047				1	0.002	
hexavalent	0.0011		0.0011		1	0.0005	
Copper, total	<0.0004		<0.0004	 	+	0.00000	
Lead, total	0.0000012		0.0000012	!	+	0.002	
Mercury, total Nickel, total	0.000032		0.0013				

	Grab Sample*	Composite Sample** Maximum	Sample* Average	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)
Pollutant	Maximum (mg/L)	(mg/L)	(mg/L)	(mg/L)	1	0.005
			< 0.0032	ļ -	1	0.0005
Selenium, total	<0.0032	-	<0.0004		+	0.005
Silver, total	<0.0004		0.011		11	
	0.011	<u> </u>	10.0-2			
Zinc, total	on minutes of st	orm event				

^{*} Taken during first 30 minutes of storm event

** Flow-weighted composite sample

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

Complete Table 18 as di able 30 Pollutant Analys	Grab Composite Sample* Sample* Maximum Avera		Grab Sample* Average	Composite Sample** Average (mg/L)	Number of Storm Events Sampled
Pollutant	Maximum (mg/L)	(mg/L)	(mg/L)		1
	0.09		0.5		1
Phosphorous	0.5		0.17		1
Nitrate-Nitrite	0.17		0.17		11
Iron (Fe)	0.17	<u></u>	1 0.17	-	1
Aluminum (Al) Biochemical Oxygen Demand	3.0		3.0		
Demand			-		

^{*} Taken during first 30 minutes of storm event ** Flow-weighted composite sample

able 31 Pollutant An	Grab Sample*	Sample**	Grab Sample* Average	Composite Sample** Average	Number of Storm Events Sampled	MAL (mg/L)
Pollutant	Maximum (mg/L)	Maximum (mg/L)	(mg/L) 7.54 (min)	(mg/L)	1	
pH (standard units)	7.54 (max)		8.0		1	
Total suspended	8.0		8.0	-	1	_
solids Chemical oxygen	16.0		16.0		1	
demand	5.1		5.1 <5.0	 - -	1]
Total organic carbon Oil and grease	<5.0					

Pollutant	Grab Sample* Maximum	Composite Sample** Maximum	Grab Sample* Average	Composite Sample** Average (mg/L)	Number of Storm Events Sampled	MAL (mg/L)	
	(mg/L)	(mg/L)	(mg/L)		1	0.0005	
	0.0028		0.0028		1	0.003	
Arsenic, total	0.12		0.12		1	0.001	
Barium, total	<4.0		<4.0		1	0.003	
Cadmium, total			0.0008				
Chromium, total	0.0008		0.0008		1	 	
Chromium, trivalent	0.0008		+		1	0.003	
Chromium,	<0.0047		<0.0047		1	0.002	
hexavalent	0.0014		0.0014			0.0005	
Copper, total			<0.0004		1	0.00000	
Lead, total	<0.0004		0.0000009		11	0.002	
Mercury, total	0.0000009		0.0014		1		
Nickel, total	0.0014		<0.0032		1	0.005	
Selenium, total	< 0.0032				1	0.0005	
	<0.0004		<0.0004		1	0.005	
Silver, total Zinc, total	0.0082		0.0082				

^{*} Taken during first 30 minutes of storm event ** Flow-weighted composite sample

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

Table 32 Pollutant Analysis for Outfall No.: 008

able 32 Pollutant Analysis	Grab Sample* Maximum	Sample** Maximum	Grab Sample* Average (mg/L)	Composite Sample** Average (mg/L)	Number of Storm Events Sampled
	(mg/L)	(mg/L)	0.10		1
Phosphorous	0.10		0.5		1
Nitrate-Nitrite	0.5		0.46		1
Iron (Fe)	0.46		0.70		1
Aluminum (Al)	0.70		3.0		1
Biological Oxygen Demand	3.0				

^{*} Taken during first 30 minutes of storm event ** Flow-weighted composite sample

ATTACHMENT O – INDUSTRIAL PROCESSES AND ACTIVITIES POTENTIALLY EXPOSED TO PRECIPITATION

Industrial Processes and Activities at Shintech Potentially Exposed to Precipitation

Shintech uses commercial herbicide in limestone areas, landscape areas, and parking lots for weed control. Herbicides are used in minimal amounts and applied as a liquid spray during the growing seasons as needed. Commercially approved pesticides are applied indoors and under roofed areas where they will not be exposed to stormwater runoff. Pesticides and herbicides are applied in accordance with USEPA labeling requirements.

Shintech also maintains an on-site fueling area for company vehicles. Fuel tanks are equipped with concrete secondary containment to prevent contamination of stormwater runoff.

Pumps and other equipment at the facility contain hydraulic fluid and/or use lubrication oils for proper operation. Spills or leaks of hydraulic fluid and/or lubrication oil may contaminate stormwater if not promptly cleaned up.

PVC resin pellets or dust may contaminate stormwater if connections to railcars or bulk trucks do not seal properly or break loose during product transfer.

ATTACHMENT Q – STORMWATER BEST MANAGEMENT PRACTICES

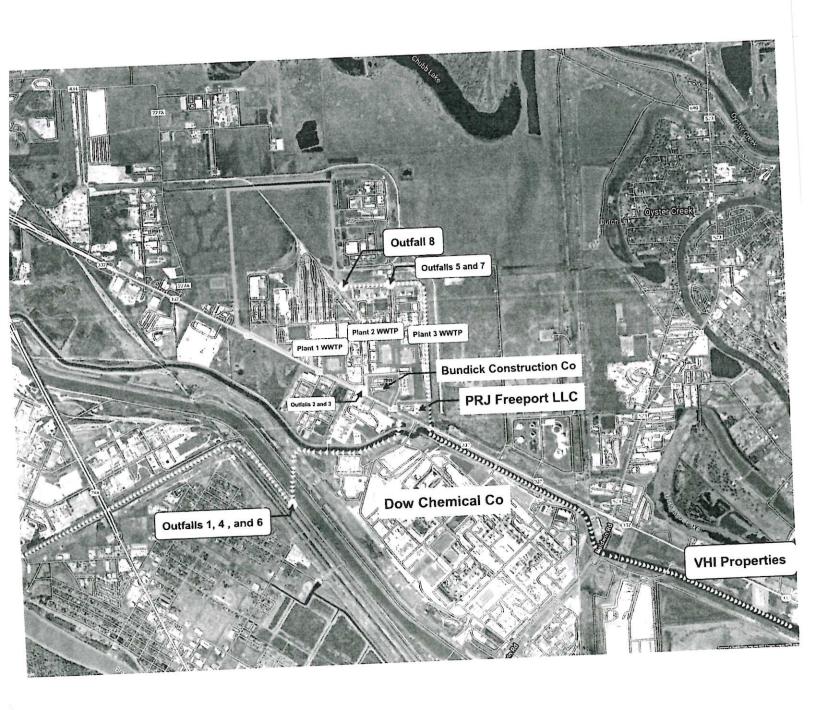
Stormwater Best Management Practices (BMPs)

Shintech has operational practices and engineering controls to prevent and/or contain all potential releases of significant materials. Significant materials used in the process areas will be stored and handled to minimize impact to storm water runoff. Areas where significant materials are handled inside buildings, under covered areas, and/or have secondary containment.

Plant practices that are conducted to avoid or reduce potential storm water contamination include:

- Routine inspections of equipment, storage tanks, storage areas, and loading/unloading areas
- Plant personnel pollution prevention training programs
- Equipment preventative maintenance programs
- Secondary containment for tanks and storage areas to isolate releases
- Regular program of equipment operational testing and maintenance is in place to minimize potential contaminant releases.





SHINTECH

Shintech Inc., 5618 Highway 332 East, Freeport, Texas 77541, (979) 233-7861

July 3, 2024

Via E-mail

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

Re: Response to Notice of Deficiency (NOD)
Application to Renew Permit No.: WQ0004818000 (EPA I.D. No. TX0053813)
Shintech Incorporated
5618 Hwy 332 E
Freeport, TX. 77541

Dear Ms. Ellis,

We have received your Notice of Deficiency (NOD) letter dated June 27, 2024. Thank you for the opportunity to respond. Below are your inquiries followed by our response in bold.

1. Application Fee on page 1 of the administrative report: We were unable to confirm payment of the application processing fee. The filing fee for your application is \$1,250.00. Please submit payment to: TCEQ, Revenue Section, (MC-214) P.O. Box 13088, Austin, Texas 7811-3088. Also, provide a copy of the check, or proof of payment along with the response to this letter.

Attachment 1 is a copy of the letter, payment submittal form, and check sent to the TCEQ Financial Administration Division (MC-214) via Fedex Overnight. Shintech incorrectly applied an application fee of \$2,050.00.

2. Map: Please provide another map with an area of not less than one mile in all directions from the facility, including the one-mile radius and return with the response to this letter.

Attachment 2 is a facility map with a 1-mile radius circle marked and shaded.

3. The following is a portion of the NORI which contains information relevant to your application. Please read it carefully and indicate if it contains any errors or omissions. The complete notice will be sent to you once the application is declared administratively complete.

APPLICATION. Shintech Incorporated, 5618 Highway 332 East, Freeport, Texas 77541, which owns a manufacture of PVC resin, has applied to the Texas

Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0004818000 (EPA I.D. No. TX0053813) to authorize treated wastewater and stormwater at a volume not to exceed a daily average flow of 1,110,000 gallons per day via Outfall 001, 1,100,000 gallons per day via Outfall 004, 1,060,000 gallons per day via Outfall 006, and at an intermittent and flow variable volume via Outfalls 002, 003, 005, 007, and 008. The facility is located at 5618 Highway 332 East, in the city of Freeport, in Brazoria County, Texas 77541. The discharge route is from the plant site to from the plant site via Outfalls 001, 004, and 006 to Dow "A" Canal, thence to Brazos River Tidal; via Outfalls 002 and 003 to a drainage ditch; thence to Flag Lake Drainage Canal, thence to East Union Bayou; thence to Intracoastal Waterway; thence to Old Brazos River Channel Tidal; and via Outfalls 005, 007, and 008 to the Velasco Drainage District Ditch; thence to Flag Lake Drainage Canal; thence to East Union Bayou; thence to Intracoastal Waterway; thence to Old Brazos River Channel Tidal. TCEQ received this application on June 10, 2024. The permit application will be available for viewing and copying at Freeport City Library, 410 Brazosport Boulevard, Freeport, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: https://www.tceq.texas.gov/permitting/wastewater/pendingpermits/tpdes-applications. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.3595,28.9956&level=18

Further information may also be obtained from Shintech Incorporated, at the address stated above or by calling Mr. Vtesh Chellappa, P.E., Environmental Engineer, at 979-705-4235.

Attachment 3 is the Shintech corrected version of the above NORI. Corrections are in red and underlined. The NORI has been provided in both PDF and Word formats.

4. The application indicates that public notices in Spanish are required. After confirming the portion of the NORI above does not contain any errors or omissions, please use the attached template to translate the NORI into Spanish. Only the first and last paragraphs are unique to this application and require translation. Please provide the translated Spanish NORI in a Microsoft Word document.

Attachment 4 is the translated version of the NORI using the provided template. The Spanish NORI has been provided in both PDF and Word formats.

Note: Since editing is restricted, I am not able to input the Permiso No. at the top of the document. In addition, since this application does include amendments, I am not able to remove the following sentence: "Si ciertos criterios se cumplen, la TCEQ puede acutar sobre una solicitud para renovar un permiso sin proveer una oportunidad de una audiencia administrative de lo contenscioso."

If you have any questions regarding this submittal, please contact me at 979-705-4235.

Sincerely,

Vtesh Chellappa

Environmental Engineer Shintech Inc.

Attachments



SHINTECH

Shintech Inc., 5618 Highway 332 East, Freeport, Texas 77541, (979) 233-7861

June 27, 2024

Via Fedex

Cashier's Office Financial Administration Division, MC-214 Texas Commission on Environmental Quality 12100 Park 35 Austin, TX 78753

Re:

Shintech Incorporated

TPDES Permit Renewal

Permit No.: WQ0004818000

5618 E HWY 332, Freeport (Brazoria County), Texas

Financial Administration Division,

Shintech Inc. is respectfully submitting the application fee for our TPDES permit renewal. Please find enclosed a check for \$2,050.00 for the Major Facility with Major Amendment Renewal application fee.

If you have any questions regarding this submittal, please contact Vtesh Chellappa at 979-233-7861 ext. 235.

Sincerely.

Christopher Hall

Environmental Manager

Shintech Inc.

Enclosure

WATER QUALITY PERMIT

PAYMENT SUBMITTAL FORM

Use this form to submit the Application Fee, if mailing the payment. (Instructions, Page 36-37)

- Complete items 1 through 5 below.
- Staple the check or money order in the space provided at the bottom of this document.
- Do not mail this form with the application form.
- Do not mail this form to the same address as the application.
- Do not submit a copy of the application with this form as it could cause duplicate permit entries.

Mail this form and the check or money order to:

BY REGULAR U.S. MAIL

BY OVERNIGHT/EXPRESS MAIL

Texas Commission on Environmental Quality Financial Administration Division Cashier's Office, MC-214 P.O. Box 13088 Austin, Texas 78711-3088

Texas Commission on Environmental Quality Financial Administration Division Cashier's Office, MC-214 12100 Park 35 Circle Austin, Texas 78753

Fee Code: WQP

Permit No: WQ0004818000

- 1. Check or Money Order Number: <u>074087</u>
- Check or Money Order Amount: \$2,050.00
- 3. Date of Check or Money Order: 6/13/2024
- 4. Name on Check or Money Order: Tadayoshi Hiyama
- 5. APPLICATION INFORMATION

Name of Project or Site: Shintech Freeport Plan

Physical Address of Project or Site: 5618 Hwy 332 E, Freeport, TX. 77541

If the check is for more than one application, attach a list which includes the name of each Project City (DE) and Physical Address, exactly as provided on the application. Attachment: Click to enter

SHINTECH INC.

FREEPORT, TEXAS 77541

TEXAS GULF BANK, N.A. FREEPORT, TX 77541 88-1548/1131

074087

5618 HIGHWAY 332 EAST

DATE

6/13/2024

AMOUNT

\$2,050.00

Two Thousand Fifty Dollars and 00 Cents

THE **ORDER**

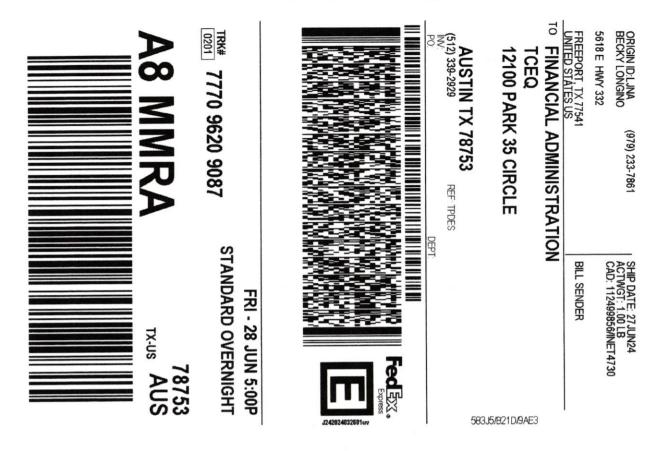
PAY

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY P.O. BOX 13089

AUSTIN TX 78711-3089

USA

"O7408?" (*113115).g.,.



After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.

2. Fold the printed page along the horizontal line.

3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

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APPLICATION. Shintech Incorporated, 5618 Highway 332 East, Freeport, Texas 77541, which owns a manufacturing facility for PVC resin, has applied to the Texas Commission on Environmental Quality (TCEQ) to renew Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0004818000 (EPA I.D. No. TX0053813) to authorize treated wastewater at a volume not to exceed a daily average flow of 1,110,000 gallons per day via Outfall 001, 1,100,000 gallons per day via Outfall 004, 1,060,000 gallons per day via Outfall 006, and stormwater at an intermittent and flow variable volume via Outfalls 002, 003, 005, 007, and 008. The facility is located at 5618 Highway 332 East, in the city of Freeport, in Brazoria County, Texas 77541. The discharge route is from the plant site to from the plant site via Outfalls 001, 004, and 006 to Dow "A" Canal, thence to Brazos River Tidal; via Outfalls 002 and 003 to a drainage ditch; thence to Flag Lake Drainage Canal, thence to East Union Bayou; thence to Intracoastal Waterway; thence to Old Brazos River Channel Tidal; and via Outfalls 005, 007, and 008 to the Velasco Drainage District Ditch; thence to Flag Lake Drainage Canal; thence to East Union Bayou; thence to Intracoastal Waterway; thence to Old Brazos River Channel Tidal. TCEQ received this application on June 10, 2024. The permit application will be available for viewing and copying at Freeport City Library, 410 Brazosport Boulevard, Freeport, Texas prior to the date this notice is published in the newspaper. The application, including any updates, and associated notices are available electronically at the following webpage: https://www.tceq.texas.gov/permitting/wastewater/pendingpermits/tpdes-applications. This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

https://gisweb.tceq.texas.gov/LocationMapper/?marker=-95.3595,28.9956&level=18

Further information may also be obtained from Shintech Incorporated, at the address stated above or by calling Mr. Vtesh Chellappa, P.E., Environmental Engineer, at 979-705-4235.



Comisión de Calidad Ambiental del Estado de Texas



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

PERMISO NO. WQooo

SOLICITUD. Shintech Inc. 5618 Hwy 332 E, Freeport, TX. 77541 ha solicitado a la Comisión de Calidad Ambiental del Estado de Texas (TCEQ) para renovar el Permiso No. WQ004818000 (EPA I.D. No. TX0053813) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la descarga de aguas residuales tratadas en un volumen que no sobrepasa un flujo promedio diario de 3,200,000 galones por día. Shintech solicita una renovación del permiso del Sistema de eliminación de descargas contaminantes de Texas (TPDES) para una instalación de fabricación de cloruro de polivinilo (PVC) de 3,2 mil millones de libras por año en Freeport, Texas. La instalación se compone de tres instalaciones de producción de PVC, cada una equipada con su propio sistema de tratamiento de aguas residuales. El sistema de tratamiento de aguas residuales tratará las aguas residuales domésticas y de proceso antes de su descarga fuera del sitio a través de tres (3) emisarios de proceso (001, 004, 006). La renovación del permiso TPDES también incluye cinco (5) emisarios de aguas pluviales (002, 003, 005, 007) para descarga fuera del sitio de aguas pluviales recolectadas en el sitio. La planta está ubicada 5618 Hwy 332 east, en Freeport, el Condado de Brazoria, Texas. La ruta de descarga es del sitio de la planta a La ruta de descarga es desde el sitio de la planta hacia el sitio de la planta a través de los emisarios 001, 004 y 006 hasta el canal Dow "A", de allí hasta Brazos River Tidal; por los Emisarios 002 y 003 hasta una zanja de drenaje; de allí al Canal de Drenaje de Flag Lake, de allí a East Union Bayou; de allí al Intracoastal Waterway; de allí hasta Old Brazos River Channel Tidal; y por los Emisarios 005, 007 y 008 hasta la Zanja del Distrito de Drenaje de Velasco; de allí al canal de drenaje de Flag Lake; de allí a East Union Bayou; de allí al Intracoastal Waterway; de allí hasta Old Brazos River Channel Tidal. La TCEQ recibió esta solicitud el 10 de junio de 2024. La solicitud para el permiso estará disponible para leerla y copiarla en Freeport City Library, 410 Brazosport Boulevard, Freeport, Texas antes de la fecha de publicación de este aviso en el periódico. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.

https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications

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

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

OPORTUNIDAD DE UNA AUDIENCIA ADMINISTRATIVA DE LO

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

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

planta o la actividad propuesta; proveer la información indicada anteriormente con respecto a la ubicación del miembro afectado y su distancia de la planta o actividad propuesta; explicar cómo y porqué el miembro sería afectado; y explicar cómo los intereses que el grupo desea proteger son pertinentes al propósito del grupo.

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión. La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios. . [For renewal applications that do not include a major amendment, include the following sentence:] 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 específico. 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	l Shintech Inc. a la	a dirección
indicada arriba o llamando	a Vtesh Chellappa al 979	-705-4235	

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