



Administrative Package Cover Page

This file contains the following documents:

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



Portada de Paquete Administrativo

Este archivo contiene los siguientes documentos:

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



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

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

Applicants should use this template to develop a plain language summary of your facility and application as required by Title 30, Texas Administrative Code (30 TAC), Chapter 39, Subchapter H. You may modify the template as necessary to accurately describe your 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 you 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. After filling in the information for your facility delete these instructions.

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

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS INDUSTRIAL WASTEWATER/STORMWATER

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

Oxbow Calcining LLC (CN602552424) operates Oxbow Calcining LLC Port Arthur Facility (RN100209287), a petroleum coke calcining facility. The facility is located at 3901 Coke Dock Road, in Port Arthur, Jefferson County, Texas 77640. Oxbow is proposing an amendment to its current TPDES Permit (WQ0001994000) and add a new outfall and modify the permitted discharge through Outfall 001 for the intermittent and flow-variable discharge of treated wastewater from two waste heat recovery (WHR) boiler units and associated waste discharge from the boiler feed water demineralizer treatment unit. Operation of the proposed WHR units is an integral part of Oxbow Clean Energy's (OCE) project consisting of the voluntary installation of air pollution control equipment on Kilns 3 and 5. Other than the installation of the emission control equipment, no changes to the current calcining process are proposed.

Discharges from the facility are expected to contain carbonaceous biochemical oxygen demand, ammonia nitrogen, dissolved oxygen, free available chlorine, total suspended solids,

oil and grease, copper, and nickel. The proposed waste streams, including blowdown wastewater from the WHR boilers and demineralized regeneration effluent from the boiler feed water treatment system will be treated by neutralization. Once treated, the effluent from the neutralization tank will be sent via the new proposed Internal Outfall 103 to the Primary Settling Reservoir for reuse on the FGD system, non-contact process cooling water for the kilns, dust suppression (rainbirds and water truck), and/or washdown of paved areas. When the treated stream is not reused, the treated effluent will be discharged to the West Turning Basin through proposed Outfall 004 (i.e., same discharge location under former TPDES permit No. WQ0004725000). Occasional routing of commingled streams from the Primary Settling Reservoir to Outfall 001 would include previously monitored streams from internal outfall 103 if the commingled streams are not entirely reused.

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

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

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

Oxbow Calcining LLC (CN602552424) opera la planta Oxbow Calcining LLC en Port Arthur RN100209287, una calcinadora de coque de petróleo. La instalación está ubicada en 3901 Coke Dock Road, en Port Arthur, Condado de Jefferson, Texas 77640. Oxbow propone una modificación a su actual Permiso TPDES (WQ0001994000) para modificar el Emisario 001 e incluir un nuevo emisario para la descarga intermitente y de caudal variable de aguas residuales tratadas de dos calderas de recuperación de calor residual (WHR) y la descarga asociada de residuos de la unidad de tratamiento desmineralizadora para las aguas de alimentación de la caldera. Aparte de la instalación de los equipos de control de emisiones, no se proponen cambios en el proceso de calcinación actual.

Se espera que las descargas de la instalación contengan demanda bioquímica de oxígeno, nitrógeno amoniacal, oxígeno disuelto, cloro libre disponible, sólidos suspendidos, aceite y grasa, cobre, y níquel. Los flujos de desechos propuestos, que incluyen las aguas residuales de purga de las calderas WHR y las aguas residuales de regeneración desmineralizadas del sistema de tratamiento de agua de alimentación de la caldera, estará tratado por neutralización. Una vez tratado, el efluente del tanque de neutralización se enviará por el nuevo propuesto Emisario Interno 103 al Depósito de Decantación Primaria para su reutilización en el sistema de destilación de gases de combustión (FGD), agua de enfriamiento de proceso sin contacto para los hornos, supresión de polvo (bombas Rainbird y camiones cisterna) y/o lavado de áreas pavimentadas. Cuando el efluente tratado no se reutilice, este se descargará al West Turning Basin a través del Emisario 004 propuesto (este es el mismo punto de descarga operado bajo el permiso TPDES Núm. WQ0004725000). La mezcla ocasional de efluentes tratados del Depósito de Decantación Primaria hasta el Emisario 001 incluiría efluentes previamente monitoreados del Emisario Interno 103 si estos no son reutilizados en su totalidad.

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



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

PERMIT NO. WQ0001994000

APPLICATION. Oxbow Calcining LLC, P.O. Box C, Port Arthur, Texas 77641, which owns the Oxbow Calcining facility that produces calcined petroleum coke, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0001994000 (EPA I.D. No. TX0068781) to authorize the addition of Outfall 004 to discharge treated wastewater at an intermittent and flow-variable volume and modify the permitted discharge through Outfall 001. The facility is located at 3901 Coke Dock Road, in the city of Port Arthur, Jefferson County, Texas 77640. The discharge route is from the plant site via Outfalls 001 and 004 to West Turning Basin, thence to Sabine-Neches Canal Tidal. TCEQ received this application on October 22, 2025. The permit application will be available for viewing and copying at Port Arthur Public Library, 4615 9th Avenue, Port Arthur, in Jefferson County, Texas prior to the date this notice is published in the newspaper. The application is available for viewing and copying at the following webpage:

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

This link to an electronic map of the site or facility's general location is provided as a public courtesy and not part of the application or notice. For the exact location, refer to the application.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-93.962222,29.833888&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.**

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 Oxbow Calcining LLC at the address stated above or by calling Ms. Darla Smith, P.E., Environmental Manager, at 409-332-6271.

Issuance Date: November 24, 2025

Comisión de Calidad Ambiental del Estado de Texas



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

PERMISO NO. WQ0001994000

SOLICITUD. Oxbow Calcining LLC, P.O. Box C, Port Arthur, Texas 77641, que produce coque de petróleo calcinado, ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) para modificar el Permiso No. WQ0001994000 (EPA I.D. No. TX00068781) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la adición del Emisario 004 para descargar aguas residuales tratadas a un volumen intermitente y variable y modificar la descarga permitida a través del Emisario 001. La planta está ubicada en 3901 Coke Dock Road, Port Arthur en el Condado de Jefferson, Texas 77640. La ruta de descarga es del sitio de la planta a través de los Emisarios 001 y 004 hasta el West Turning Basin y de allí al Sabine-Neches Canal Tidal. La TCEQ recibió esta solicitud el 22 de octubre de 2025. La solicitud para el permiso estará disponible para leerla y copiarla en la Biblioteca Pública de Port Arthur, 4615 9th Street, Port Arthur, Condado de Jefferson antes de la fecha de publicación de este aviso en el periódico. La solicitud está disponible para su visualización y copia en la siguiente página web:

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>.

Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.

<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-93.962222,29.833888&level=18>

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

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

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

comentarios públicos.

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

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

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

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión.

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

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

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

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

También se puede obtener información adicional del Oxbow Calcining LLC a la dirección indicada arriba o llamando a Darla Smith, Gerente Ambiental, al 409-332-6271.

Fecha de emisión: 24 de noviembre de 2025

Brooke T. Paup, *Chairwoman*
Catarina R. Gonzales, *Commissioner*
Tonya R. Miller, *Commissioner*
Kelly Keel, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

October 22, 2025

Re: Confirmation of Submission of the Major Amendment without Renewal for Industrial Wastewater Authorization.

Dear Applicant:

This is an acknowledgement that you have successfully completed Major Amendment without Renewal for the Industrial Wastewater authorization.

ER Account Number: ER006064
Application Reference Number: 829001
Authorization Number: WQ0001994000
Site Name: Oxbow Calcining Plant
Regulated Entity: RN100209287 - Oxbow Calcining
Customer(s): CN602552424 - Oxbow Calcining LLC

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

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

Sincerely,
Applications Review and Processing Team
Water Quality Division

Texas Commission on Environmental Quality
Update Domestic or Industrial Individual Permit
WQ0001994000

Site Information (Regulated Entity)

What is the name of the site to be authorized?	OXBOW CALCINING PLANT
Does the site have a physical address?	Yes
Physical Address	
Number and Street	3901 COKE DOCK RD
City	PORT ARTHUR
State	TX
ZIP	77640
County	JEFFERSON
Latitude (N) (##.#####)	29.833888
Longitude (W) (-###.#####)	-93.962222
Primary SIC Code	2999
Secondary SIC Code	
Primary NAICS Code	324199
Secondary NAICS Code	
Regulated Entity Site Information	
What is the Regulated Entity's Number (RN)?	RN100209287
What is the name of the Regulated Entity (RE)?	OXBOW CALCINING
Does the RE site have a physical address?	Yes
Physical Address	
Number and Street	3901 COKE DOCK RD
City	PORT ARTHUR
State	TX
ZIP	77640
County	JEFFERSON
Latitude (N) (##.#####)	29.843333
Longitude (W) (-###.#####)	-93.956111
Facility NAICS Code	
What is the primary business of this entity?	INDUSTRIAL CHEMICAL MANUFACTURING PLANT

Oxbow C-Customer (Applicant) Information (Owner)

How is this applicant associated with this site?	Owner
What is the applicant's Customer Number (CN)?	CN602552424
Type of Customer	Other
Full legal name of the applicant:	
Legal Name	Oxbow Calcining LLC
Texas SOS Filing Number	800236436
Federal Tax ID	133637043
State Franchise Tax ID	11336370439
State Sales Tax ID	
Local Tax ID	

DUNS Number	
Number of Employees	101-250
Independently Owned and Operated?	Yes
I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas.	Yes
Responsible Authority Contact	
Organization Name	Oxbow Calcining LLC
Prefix	MR
First	DANIEL
Middle	
Last	ROSENDALE
Suffix	
Credentials	
Title	VICE PRESIDENT OF CALCINER OPERATIONS
Responsible Authority Mailing Address	
Enter new address or copy one from list:	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	PO BOX C
Routing (such as Mail Code, Dept., or Attn:)	
City	PORT ARTHUR
State	TX
ZIP	77641
Phone (###-###-####)	2819079446
Extension	
Alternate Phone (###-###-####)	
Fax (###-###-####)	
E-mail	DAN.ROSENDALE@OXBOW.COM

Billing Contact

Responsible contact for receiving billing statements:	
Select the permittee that is responsible for payment of the annual fee.	
Organization Name	CN602552424, Oxbow Calcining LLC
Prefix	Oxbow Calcining LLC
First	MS
Middle	JOY
Last	WILSON
Suffix	
Credentials	
Title	ACCOUNTING MANAGER
Enter new address or copy one from list:	
Mailing Address	
Address Type	Domestic
Mailing Address (include Suite or Bldg. here, if applicable)	PO BOX C
Routing (such as Mail Code, Dept., or Attn:)	
City	PORT ARTHUR
State	TX
ZIP	77641

Phone (###-###-####)

4099838467

Extension

Alternate Phone (###-###-####)

Fax (###-###-####)

E-mail

JOY.WILSON@OXBOW.COM

Application Contact

Person TCEQ should contact for questions about this application:

Same as another contact?

Organization Name

OXBOW CALCINING LLC

Prefix

MS

First

DARLA

Middle

Last

SMITH

Suffix

Credentials

Title

ENVIRONMENTAL MANAGER

Enter new address or copy one from list:

Mailing Address

Address Type

Domestic

Mailing Address (include Suite or Bldg. here, if applicable)

PO BOX C

Routing (such as Mail Code, Dept., or Attn:)

City

PORT ARTHUR

State

TX

ZIP

77641

Phone (###-###-####)

4099838467

Extension

Alternate Phone (###-###-####)

Fax (###-###-####)

E-mail

DARLA.SMITH@OXBOW.COM

Technical Contact

Person TCEQ should contact for questions about this application:

Same as another contact?

Organization Name

OXBOW CALCINING LLC

Prefix

MR

First

MARIO

Middle

Last

FARRULLA

Suffix

Credentials

Title

ENVIRONMENTAL MANAGER AND
REGULATORY AFFAIRS

Enter new address or copy one from list:

Mailing Address

Address Type

Domestic

Mailing Address (include Suite or Bldg. here, if applicable)

1601 FORUM PL STE 1400

Routing (such as Mail Code, Dept., or Attn:)

City

State

ZIP

Phone (###-###-####)

Extension

Alternate Phone (###-###-####)

Fax (###-###-####)

E-mail

WEST PALM BEACH

FL

33401

5619075558

MARIO.FARRULLA@OXBOW.COM

DMR Contact

Person responsible for submitting Discharge Monitoring Report Forms:

Same as another contact?

Organization Name

Prefix

First

Middle

Last

Suffix

Credentials

Title

Enter new address or copy one from list:

Mailing Address:

Address Type

Mailing Address (include Suite or Bldg. here, if applicable)

Routing (such as Mail Code, Dept., or Attn:)

City

State

ZIP

Phone (###-###-####)

Extension

Alternate Phone (###-###-####)

Fax (###-###-####)

E-mail

Application Contact

OXBOW CALCINING LLC

MS

DARLA

SMITH

ENVIRONMENTAL MANAGER

Domestic

PO BOX C

PORT ARTHUR

TX

77641

4099838467

DARLA.SMITH@OXBOW.COM

Section 1# Permit Contact

Permit Contact#: 1

Person TCEQ should contact throughout the permit term.

1) Same as another contact?

2) Organization Name

3) Prefix

4) First

5) Middle

6) Last

7) Suffix

8) Credentials

Technical Contact

OXBOW CALCINING LLC

MR

MARIO

FARRULLA

9) Title

ENVIRONMENTAL MANAGER AND
REGULATORY AFFAIRS

Mailing Address

10) Enter new address or copy one from list

11) Address Type

Domestic

11.1) Mailing Address (include Suite or Bldg. here, if applicable)

1601 FORUM PL STE 1400

11.2) Routing (such as Mail Code, Dept., or Attn:)

11.3) City

WEST PALM BEACH

11.4) State

FL

11.5) ZIP

33401

12) Phone (###-###-####)

5613190849

13) Extension

14) Alternate Phone (###-###-####)

15) Fax (###-###-####)

16) E-mail

MARIO.FARRULLA@OXBOW.COM

Section 2# Permit Contact

Permit Contact#: 2

Person TCEQ should contact throughout the permit term.

1) Same as another contact?

Application Contact

2) Organization Name

OXBOW CALCINING LLC

3) Prefix

MS

4) First

DARLA

5) Middle

6) Last

SMITH

7) Suffix

8) Credentials

9) Title

ENVIRONMENTAL MANAGER

Mailing Address

10) Enter new address or copy one from list

11) Address Type

Domestic

11.1) Mailing Address (include Suite or Bldg. here, if applicable)

PO BOX C

11.2) Routing (such as Mail Code, Dept., or Attn:)

11.3) City

PORT ARTHUR

11.4) State

TX

11.5) ZIP

77641

12) Phone (###-###-####)

4093326271

13) Extension

14) Alternate Phone (###-###-####)

15) Fax (###-###-####)

16) E-mail

DARLA.SMITH@OXBOW.COM

Owner Information

Owner of Treatment Facility

1) Prefix

MR

2) First and Last Name

Robert Poage

3) Organization Name

Oxbow Calcining LLC

4) Mailing Address	Po Box C
5) City	Port Arthur
6) State	TX
7) Zip Code	77640
8) Phone (###-###-####)	5805798030
9) Extension	
10) Email	bobby.poage@oxbow.com
11) What is ownership of the treatment facility?	Private
Owner of Land (where treatment facility is or will be)	
12) Prefix	
13) First and Last Name	
14) Organization Name	The Kansas City Southern Railroad Company
15) Mailing Address	PO Box 219335
16) City	Kansas City
17) State	MO
18) Zip Code	64121
19) Phone (###-###-####)	4099826451
20) Extension	
21) Email	publicworks@cpkcr.com
22) Is the landowner the same person as the facility owner or co-applicant?	No

General Information Renewal-Amendment

1) Current authorization expiration date:	12/21/2028
2) Current Facility operational status:	Active
3) Is the facility located on or does the treated effluent cross American Indian Land?	No
4) What is the application type that you are seeking?	Major Amendment without Renewal
4.1) Describe the proposed changes:	Oxbow is proposing an amendment to its current TPDES Permit WQ0001994000 to include the intermittent and flow-variable discharge of treated wastewater from two waste heat recovery WHR boiler units and treated effluent from the boiler feed water treatment system. This amendment will add a new outfall, designated in this application as Outfall 004, to TPDES Permit No. WQ0001994000.
5) Current Authorization type:	Industrial Wastewater
5.1) What is your EPA facility classification?	Minor
5.1.1) Are the discharges at your facility subjected to federal effluent limitation guidelines (ELG) 40 CFR Part 400-471?	No
5.1.1.1) Select the applicable fee for the Minor facility that is not subjected to 40 CFR 400-471:	Major Amendment - \$350
6) What is the classification for your authorization?	TPDES
6.1) What is the EPA Identification Number?	TX0068781
6.2) Is the wastewater treatment facility location in the existing permit accurate?	Yes
6.3) Are the point(s) of discharge and the discharge route(s) in the existing permit correct?	Yes

6.4) City nearest the outfall(s):	Port Arthur
6.5) County where the outfalls are located:	JEFFERSON
6.6) Is or will the treated wastewater discharge to a city, county, or state highway right-of-way, or a flood control district drainage ditch?	No
6.7) Is the daily average discharge at your facility of 5 MGD or more?	No
7) Did any person formerly employed by the TCEQ represent your company and get paid for service regarding this application?	No

Public Notice Information

Individual Publishing the Notices

1) Prefix	MS
2) First and Last Name	Darla Smith
3) Credential	
4) Title	Environmental Manager
5) Organization Name	Oxbow Calcining LLC
6) Mailing Address	PO BOX C
7) Address Line 2	
8) City	PORT ARTHUR
9) State	TX
10) Zip Code	77641
11) Phone (###-###-####)	4093326271
12) Extension	
13) Fax (###-###-####)	
14) Email	darla.smith@oxbow.com

Contact person to be listed in the Notices

15) Prefix	MS
16) First and Last Name	Darla Smith
17) Credential	
18) Title	ENVIRONMENTAL MANAGER
19) Organization Name	Oxbow calcining llc
20) Phone (###-###-####)	4093326271
21) Fax (###-###-####)	
22) Email	darla.smith@oxbow.com

Bilingual Notice Requirements

23) Is a bilingual education program required by the Texas Education Code at the elementary or middle school nearest to the facility or proposed facility?	Yes
23.1) Are the students who attend either the elementary school or the middle school enrolled in a bilingual education program at that school?	Yes
23.2) Do the students at these schools attend a bilingual education program at another location?	No
23.3) Would the school be required to provide a bilingual education program but the school has waived out of this requirement under 19 TAC 89.1205(g)?	No
23.4) Which language is required by the bilingual program?	Spanish

Section 1# Public Viewing Information

County#: 1

1) County	JEFFERSON
-----------	-----------

2) Public building name	Port Arthur Public Library
3) Location within the building	Reference Shelf
4) Physical Address of Building	4615 9th Ave
5) City	Port Arthur
6) Contact Name	Carolyn Thibodeaux
7) Phone (###-###-####)	4099858838
8) Extension	
9) Is the location open to the public?	Yes

Lease Agreement or Deed Attachment

1) Attach a lease agreement or deed recorded easement	
[File Properties]	
File Name	LEASE_ATTACHMENT A-5_PROPERTY OWNERSHIP_WP102225.pdf
Hash	BEADA6080D6422D6C02AE90B7193CB00E31827B8E91B9CC8208039041DD9CA9E
MIME-Type	application/pdf

Plain Language

1) Plain Language	
[File Properties]	
File Name	LANG_Plan Language.pdf
Hash	B8C2A340AAB89BBAD36A38E376F8908A7714565AB9FC3270BBABF2D32803BCAD
MIME-Type	application/pdf

Supplemental Permit Information Form

1) Supplemental Permit Information Form (SPIF)	
[File Properties]	
File Name	SPIF_SPIF.pdf
Hash	2B6FAFD58BE815B0F82E6CE12E64D5E0CB275369230E9E60D6306583688D3940
MIME-Type	application/pdf

Industrial Attachments

1) Attach an 8.5"x11", reproduced portion of the most current and original USGS Topographic Quadrangle Map(s) that meets the 1:24,000 scale.	
[File Properties]	
File Name	MAP_USGS map.pdf
Hash	4E976011A53E7DA84256C0E92A49E3FA504190E1C43E6904102B4EFD776CF92C
MIME-Type	application/pdf
2) Public Involvement Plan (TCEQ Form 20960)	
[File Properties]	
File Name	PIP_Public Involvement Plan.pdf
Hash	DA2A9C1E5F3158965EAFE93575B2CF085446E6756A99C0CAFB02CA87DAEE9A31

MIME-Type	application/pdf
3) Administrative Report 1.1	
[File Properties]	
File Name	ARPT_Admin.pdf
Hash	4D3F66869ECF67C2B78323B094AE648227812C622F95B13493697BCBB50A316C
MIME-Type	application/pdf
4) I confirm that all required sections of Technical Report 1.0 are complete and will be included in the Technical Attachment.	Yes
4.1) I confirm that Worksheet 4.0 (Receiving Waters) is complete and included in the Technical Attachment.	Yes
4.2) Are you planning to include Worksheet 4.1 (Waterbody Physical Characteristics) in the Technical Attachment?	No
4.3) Are you planning to include Worksheet 6.0 (Industrial Waste Contribution) in the Technical Attachment?	No
4.4) Are you planning to include Worksheet 7.0 (Stormwater Discharges Associated with Industrial Activities) to the Technical Attachment?	No
4.5) Are you planning to include Worksheet 8.0 (Aquaculture) in the Technical Attachment?	No
4.6) Are you planning to include Worksheet 9.0 (Class V Injection Well Inventory/Authorization) in the Technical Attachment?	No
4.7) Are you planning to include Worksheet 10.0 (Quarries in the John Graves Scenic Riverway) in the Technical Attachment?	No
4.8) Are you planning to include Worksheet 11.0 (Cooling Water System Information) in the Technical Attachment?	No
4.9) Are you planning to include Worksheet 11.1 (Impingement Mortality) in the Technical Attachment?	No
4.10) Are you planning to include Worksheet 11.2 (Source Water Biological Data) in the Technical Attachment?	No
4.11) Are you planning to include Worksheet 11.3 (Entrainment) in the Technical Attachment?	No
4.12) Technical Attachment	
[File Properties]	
File Name	TECH_SPIF. Technical.pdf
Hash	2B6FAFD58BE815B0F82E6CE12E64D5E0CB275369230E9E60D6306583688D3940
MIME-Type	application/pdf
5) Affected Landowners Map	
[File Properties]	
File Name	LANDMP_Land owner map.list.pdf
Hash	AE6CCD6A861AB3412CF278E85275724552ACE379014FD0FE90A1600418224611
MIME-Type	application/pdf
6) Landowners Cross Reference List	
[File Properties]	
File Name	LANDCRL_ADMIN REPORT 1.1_Affected Landowner Labels (Avery 5160).docx
Hash	3B3203C009E936BC483EEFD7C235BE798A55595DEFC65C1C2B4CA9949FA58402
MIME-Type	application/vnd.openxmlformats-officedocument.wordprocessingml.document
7) Landowner Avery Template	
[File Properties]	

File Name	LANDAT_ADMIN REPORT 1.1_Affected Landowner Labels (Avery 5160).docx
Hash	3B3203C009E936BC483EEFD7C235BE798A55595DEFC65C1C2B4CA9949FA58402
MIME-Type	application/vnd.openxmlformats-officedocument.wordprocessingml.document
8) Flow Diagram	
[File Properties]	
File Name	FLDIA_Flow Diagram.pdf
Hash	D1E814A88A2568F54568E7E4F802BF66940706D1EB057E7D6562D243C0CD33A9
MIME-Type	application/pdf
9) Site Drawing	
[File Properties]	
File Name	SITEDR_Plot Plan.pdf
Hash	24E4D726A4587AAE81BAA0D84F4CB1A3C9C6158B274A285875AE3EA7B3C49FA5
MIME-Type	application/pdf
10) Original Photographs	
[File Properties]	
File Name	ORIGPH_Outfall map.photos.pdf
Hash	7BCD65F5977FB8CDBB5BB5432839A2289D1082AF5B413431F35C764467E81A1B
MIME-Type	application/pdf
11) Design Calculations	
[File Properties]	
File Name	DES_CAL_Amendment explanation.pdf
Hash	22607D4C0F2D24E7D3CAE753F428E84AFA5E3BE8B804BF4052C980F0C6A52F6E
MIME-Type	application/pdf
12) Solids Management Plan	
13) Water Balance	
[File Properties]	
File Name	WB_Flow Diagram.pdf
Hash	D1E814A88A2568F54568E7E4F802BF66940706D1EB057E7D6562D243C0CD33A9
MIME-Type	application/pdf
14) Other Attachments	
[File Properties]	
File Name	OTHER_TPDES AMENDMENT APPLICATION_WQ0001994000_102225.pdf
Hash	7817996FF2B6E3C2FCC844441F366E4B4A47BB40F9F84295C8918DA717A4CE03
MIME-Type	application/pdf

Certification

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

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware

there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

1. I am Robert C Poage, the owner of the STEERS account ER102218.
2. I have the authority to sign this data on behalf of the applicant named above.
3. I have personally examined the foregoing and am familiar with its content and the content of any attachments, and based upon my personal knowledge and/or inquiry of any individual responsible for information contained herein, that this information is true, accurate, and complete.
4. I further certify that I have not violated any term in my TCEQ STEERS participation agreement and that I have no reason to believe that the confidentiality or use of my password has been compromised at any time.
5. I understand that use of my password constitutes an electronic signature legally equivalent to my written signature.
6. I also understand that the attestations of fact contained herein pertain to the implementation, oversight and enforcement of a state and/or federal environmental program and must be true and complete to the best of my knowledge.
7. I am aware that criminal penalties may be imposed for statements or omissions that I know or have reason to believe are untrue or misleading.
8. I am knowingly and intentionally signing Update Domestic or Industrial Individual Permit WQ0001994000.
9. My signature indicates that I am in agreement with the information on this form, and authorize its submittal to the TCEQ.

OWNER Signature: Robert C Poage OWNER

Customer Number:	CN602552424
Legal Name:	Oxbow Calcining LLC
Account Number:	ER102218
Signature IP Address:	12.97.48.178
Signature Date:	2025-10-22
Signature Hash:	DD1596D284ACC4EB83852BA045D094661B3E064F075CBB18A9EAF35E04C93D06
Form Hash Code at time of Signature:	A87C0F12DD3190EAAF840CD757566B879DB15A16EB18F0F58CB8F54CCD74DD24

Fee Payment

Transaction by:	The application fee payment transaction was made by ER006064/Darla V Smith
Paid by:	The application fee was paid by DARLA SMITH
Fee Amount:	\$300.00
Paid Date:	The application fee was paid on 2025-10-22
Transaction/Voucher number:	The transaction number is 582EA000690877 and the voucher number is 789559

Submission

Reference Number:	The application reference number is 829001
Submitted by:	The application was submitted by ER006064/Darla V Smith
Submitted Timestamp:	The application was submitted on 2025-10-22 at 16:02:11 CDT
Submitted From:	The application was submitted from IP address 12.97.48.178
Confirmation Number:	The confirmation number is 687114
Steers Version:	The STEERS version is 6.93
Permit Number:	The permit number is WQ0001994000

Additional Information

Application Creator: This account was created by Darla V Smith



OXBOW CALCINING LLC

October 22, 2025

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

**Re: Application for Major Permit Amendment
Oxbow Calcining LLC
TPDES: WQ0001994000
CN602552424; RN100209287**

To Whom It May Concern:

Please find enclosed a major permit amendment application for Oxbow Calcining LLC (Oxbow).

Oxbow is proposing an amendment to its current TPDES Permit (Permit # WQ0001994000) to include the intermittent and flow-variable discharge of treated wastewater from two waste heat recovery (WHR) boiler units and treated effluent from the boiler feed water treatment system. This amendment will add a new outfall, designated in this application as Outfall 004, to TPDES Permit No. WQ0001994000.

Also enclosed is a copy of the e-pay voucher for the amendment application, in the amount of \$350.00 (ePay Trace Number: 582EA000690748), and Affected Landowner label file (Avery 5160).

Should you have any questions regarding this application, please do not hesitate to contact me at 580-579-8030 or Darla Smith, Environmental Manager, at 406-332-6271.

Sincerely,

Robert Poage
Plant Manager
Oxbow Calcining LLC

Oxbow Calcining LLC
TPDES Permit WQ0001994000
Application for Major Amendment without Renewal

APPLICATION CONTENTS

Administrative Report 1.0

Supplemental Permit Information Form (SPIF) Technical Report 1.0

Technical Report 1.0

ATTACHMENTS

ATTACHMENT	DESCRIPTION	CROSS-REFERENCE TO APPLICATION ITEM
SPIF	SPIF Map	SPIF-8
A-1	Copy of Application Fee Payment	AR1.0-1.h
A-2	Core Data Form	AR1.0-4.a
A-3	Plain Language Summary	AR1.0-9.f
A-4	Public Involvement Plan Form	AR1.0-9.g
A-5	Long-Term Lease Agreement	AR1.0-10.f
A-6	USGS Map	AR1.0-11.b
A-7	Adjacent Landowner Map, List and Mailing Labels	AR1.1-1.a.b.
A-8	Photographs of Outfall Location	AR1.1-2
T-1	Facility Map	TR1-1.d
T-2	Wastewater Flow Diagrams	TR1-1.b
T-3	Facility Plot Plan	TR1-1.d
T-4	Third Party Wastes	TR-10.d
T-5	Amendment Request	TR1-1.d
T-6	Chemical List and Safety Data Sheets	TR1-1.d

REFERENCE KEY

AR1.0 Administrative Report 1.0

AR1.1 Administrative Report 1.1

TR Technical Report

SPIF Supplemental Permit Information Form



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION CHECKLIST

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

APPLICANT NAME: Oxbow Calcining LLC

PERMIT NUMBER (If new, leave blank): WQ00 0001994000

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

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

For TCEQ Use Only

Segment Number _____ County _____

Expiration Date _____ Region _____



Permit Number _____

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION

ADMINISTRATIVE REPORT 1.0

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

Applications for oil and gas extraction operations subject to 40 CFR Part 435 must use Oil and Gas Exploration and Production Administrative Report ([TCEQ Form-20893 and 20893-inst¹](#)).

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

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

Applicant Name: Oxbow Calcining LLC

Permit No.: WQ0001994000

EPA ID No.: TX0068781

Expiration Date: December 21, 2028

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

☒ Industrial Wastewater (wastewater and stormwater)

☐ Industrial Stormwater (stormwater only)

☐ Reverse Osmosis Water Treatment (reverse osmosis water treatment wastewaters only)

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

☒ Active

☐ Inactive

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

☒ TPDES Permit

☐ TLAP

☐ TPDES with TLAP component

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

☐ New

☐ Renewal with changes

☐ Renewal without changes

☐ Major amendment with renewal

☒ Major amendment without renewal

☐ Minor amendment without renewal

☐ Minor modification without renewal

- f. If applying for an amendment or modification, describe the request: See Attachment A

For TCEQ Use Only

Segment Number _____ County _____

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

Expiration Date _____ Region _____
 Permit Number _____

g. Application Fee

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

h. Payment Information

Mailed

Check or money order No.: N/A

Check or money order amt.: N/A

Named printed on check or money order: N/A

Epay

Voucher number: 582EA000690748

Copy of voucher attachment: A-1

Item 2. Applicant Information (Instructions, Pages 26)

a. Customer Number, if applicant is an existing customer: CN602552424

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

b. Legal name of the entity (applicant) applying for this permit: Oxbow Calcining LLC

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

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

Prefix: Mr. Full Name (Last/First Name): Rosendale / Daniel

Title: Vice President, Calciner Operations Credential: N/A

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

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

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

☒ Yes ☐ No

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

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

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

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

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

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

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

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

Prefix: Click to enter text.

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

Title: Click to enter text.

Credential: Click to enter text.

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

☐ Yes ☐ No

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

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

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

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

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

a. ☒ Administrative Contact ☒ Technical Contact

Prefix: Ms. Full Name (Last/First Name): Smith/Darla

Title: Environmental Manager Credential: P.E.

Organization Name: Oxbow Calcining LLC

Mailing Address: PO Box C

City/State/Zip: Port Arthur/TX /77641

Phone No: 409-983-8467

Email: darla.smith@oxbow.com

b. ☐ Administrative Contact ☒ Technical Contact

Prefix: Mr. Full Name (Last/First Name): Farrulla/Mario

Title: Manager, Env. And Regulatory Matters Credential: P.E.

Organization Name: Oxbow Calcining International, LLC

Mailing Address: 1601 Forum Place, Suite 1400 City/State/Zip: West Palm Beach/FL/33401

Phone No: 561-907-5558 Email: mario.farrulla@oxbow.com

Attachment: N/A

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

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

a. Prefix: Ms. Full Name (Last/First Name): Smith / Darla

Title: Environmental Manager Credential: P.E.

Organization Name: Oxbow Calcining LLC

Mailing Address: PO Box C

City/State/Zip: Port Arthur/TX /77641

Phone No: 409-983-8467

Email: darla.smith@oxbow.com

b. Prefix: Mr. Full Name (Last/First Name): Farrulla/Mario

Title: Manager, Env. And Regulatory Matters Credential: P.E.

Organization Name: Oxbow Calcining International LLC

Mailing Address: 1601 Forum Place, Suite 1400 City/State/Zip: West Palm Beach/FL/33401

Phone No: 561-907-5558

Email: mario.farrulla@oxbow.com

Attachment: N/A

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

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

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

Prefix: Ms. Full Name (Last/First Name): Wilson/Joy

Title: Accounts Payable Credential: N/A

Organization Name: Oxbow Calcining LLC

Mailing Address: PO Box C

City/State/Zip: Port Arthur/TX/77641

Phone No: 409-983-8422

Email: joy.wilson@oxbow.com

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

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

Prefix: Ms. Full Name (Last/First Name): Smith/Darla

Title: Environmental Manager Credential: P.E.

Organization Name: Oxbow Calcining LLC

Mailing Address: PO Box C

City/State/Zip: Port Arthur/TX/77641

Phone No: 409-983-8467

Email: darla.smith@oxbow.com

Item 9. Notice Information (Instructions, Pages 28)

a. Individual Publishing the Notices

Prefix: Ms. Full Name (Last/First Name): Smith/Darla

Title: Environmental Manager Credential: P.E.

Organization Name: Oxbow Calcining LLC

Mailing Address: PO Box C

City/State/Zip: Port Arthur/TX/77641

Phone No: 409-983-8467

Email: darla.smith@oxbow.com

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

☒ E-mail: darla.smith@oxbow.com

☐ Fax: N/A

☒ Regular Mail (USPS)

Mailing Address: PO Box C

City/State/Zip Code: Port Arthur/TX/77641

c. Contact in the Notice

Prefix: Ms. Full Name (Last/First Name): Smith/Darla

Title: Environmental Manager Credential: P.E.

Organization Name: Oxbow Calcining LLC

Phone No: 409-983-8467

Email: darla.smith@oxbow.com

d. Public Viewing Location Information

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

Public building name: Port Arthur Public Library Location within the building: Reference Shelf

Physical Address of Building: 4615 9th Avenue

City: Port Arthur

County: Jefferson

e. Bilingual Notice Requirements

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

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

Call the bilingual/ESL coordinator at the nearest elementary and middle schools and obtain the following information to determine if an alternative language notice(s) is required.

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

☒ Yes ☐ No

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

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

☒ Yes ☐ No

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

☐ Yes ☒ No

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

☐ Yes ☒ No ☐ N/A

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

- f. Summary of Application in Plain Language Template – Complete and attach the Summary of Application in Plain Language Template (TCEQ Form 20972), also known as the plain language summary or PLS. Attachment: A-3

- g. Complete and attach one Public Involvement Plan (PIP) Form (TCEQ Form 20960) for each application for a new permit or major amendment. Attachment: A-4

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

- a. TCEQ issued Regulated Entity Number (RN), if available: RN100209287

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

- b. Name of project or site (name known by the community where located): Oxbow Calcining Port Arthur facility

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

☒ Yes ☐ No ☐ N/A (new permit)

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

- d. Owner of treatment facility:

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

or Organization Name: Oxbow Calcining LLC

Mailing Address: PO Box C

City/State/Zip: Port Arthur/TX/77641

Phone No: 409-983-8406 Email: N/A

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

f. Owner of land where treatment facility is or will be: The Kansas City Southern Railroad Company

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

or Organization Name: The Kansas City Southern Railroad Company

Mailing Address: PO Box 219335

City/State/Zip: Kansas/MO/64121

Phone No: 409-982-6451

Email: N/A

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years (In some cases, a lease may not suffice - see instructions). Attachment: A-5

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

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

or Organization Name: N/A

Mailing Address: N/A

City/State/Zip: N/A

Phone No: N/A

Email: N/A

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: N/A

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

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

or Organization Name: N/A

Mailing Address: N/A

City/State/Zip: N/A

Phone No: N/A

Email: N/A

Note: If not the same as the facility owner, attach a long-term lease agreement in effect for at least six years. Attachment: N/A

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

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

☐ Yes ☒ No

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

☒ One-mile radius

☒ 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

☐ New and future construction

Attachment: A-6

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

☒ Yes ☐ No or New Permit

If no, or a new application, provide an accurate location description: N/A

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

☒ Yes ☐ No or New Permit

If no, or a new application, provide an accurate location description: N/A

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

☒ Yes ☐ No or New Permit

If no, or a new permit, provide an accurate description of the discharge route: N/A

- f. City nearest the outfall(s): Port Arthur

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

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

☐ Yes ☒ No

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

For new and amendment applications, attach copies of letters that show proof of contact and provide the approval letter upon receipt. Attachment: N/A

For all applications involving an average daily discharge of 5 MGD or more, provide the names of all counties located within 100 statute miles downstream of the point(s) of discharge: N/A

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

☐ Yes ☐ No or New Permit ☒ N/A

If no, or a new application, provide an accurate location description: N/A

- j. City nearest the disposal site: N/A

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

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

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

Item 12. Miscellaneous Information (Instructions, Page 33)

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

☐ Yes ☒ No

If yes, list each person: N/A

- b. Do you owe any fees to the TCEQ?

☐ Yes ☒ No

If yes, provide the following information:

Account no.: N/A

Total amount due: N/A

- c. Do you owe any penalties to the TCEQ?

☐ Yes ☒ No

If yes, provide the following information:

Enforcement order no.: N/A

Amount due: N/A

Item 13. Signature Page (Instructions, Page 33)

Permit No: WQ0001994000

Applicant Name: Oxbow Calcining LLC

Certification: I, Daniel Rosendale, 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): Daniel Rosendale

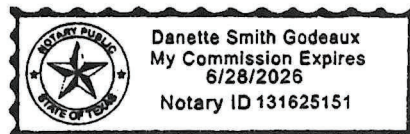
Signatory title: Vice President, Calciner Operations

Signature: Daniel Rosendale Date: 10/22/25
(Use blue ink)

Subscribed and Sworn to before me by the said Danette Smith Godeaux
on this 22nd day of October, 2025.
My commission expires on the 28th day of June, 2026.

Danette Smith Godeaux
Notary Public

Jefferson
County, Texas



[SEAL]

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

INDUSTRIAL WASTEWATER PERMIT APPLICATION

ADMINISTRATIVE REPORT 1.1

The following information is required for new and amendment applications.

Item 1. Affected Landowner Information (Instructions, Page 35)

- a. Attach a landowner map or drawing, with scale, as applicable. Check the box next to each item to confirm it has been provided.
- ☒ The applicant's property boundaries.
 - ☒ The facility site boundaries within the applicant's property boundaries.
 - ☒ The distance the buffer zone falls into adjacent properties and the property boundaries of the landowners located within the buffer zone.
 - ☒ The property boundaries of all landowners surrounding the applicant's property. (Note: if the application is a major amendment for a lignite mine, the map must include the property boundaries of all landowners adjacent to the new facility (ponds).)
 - ☒ The point(s) of discharge and highlighted discharge route(s) clearly shown for one mile downstream.
 - ☒ The property boundaries of the landowners located on both sides of the discharge route for one full stream mile downstream of the point of discharge.
 - ☒ The property boundaries of the landowners along the watercourse for a one-half mile radius from the point of discharge if the point of discharge is into a lake, bay, estuary, or affected by tides.
 - ☐ The boundaries of the effluent disposal site (e.g., irrigation area or subsurface drainfield site) and all evaporation/holding ponds within the applicant's property.
 - ☒ The property boundaries of all landowners surrounding the applicant's property boundaries where the effluent disposal site is located.
 - ☐ The boundaries of the sludge land application site (for land application of sewage sludge for beneficial use) and the property boundaries of landowners within one-quarter mile of the applicant's property boundaries where the sewage sludge land application site is located.
 - ☐ The property boundaries of landowners within one-half mile in all directions from the applicant's property boundaries where the sewage sludge disposal site (e.g., sludge surface disposal site or sludge monofil) is located.
- Attachment: A-7
- b. ☒ that the landowners list has also been provided as mailing labels in electronic format (Avery 5160).
- c. Check this box to confirm a separate list with the landowners' names and mailing addresses cross-referenced to the landowner's map has been provided. Provide the source of the landowners' names and mailing addresses: Attachment A-7

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

☐ Yes ☒ No

If yes, provide the location and foreseeable impacts and effects this application has on the land(s): N/A

Item 2. Original Photographs (Instructions, Page 37)

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

- ☐ At least one original photograph of the new or expanded treatment unit location.
- ☒ At least two photographs of the existing/proposed point of discharge and as much area downstream (photo 1) and upstream (photo 2) as can be captured. If the discharge is to an open water body (e.g., lake, bay), the point of discharge should be in the right or left edge of each photograph showing the open water and with as much area on each respective side of the discharge as can be captured.
- ☐ At least one photograph of the existing/proposed effluent disposal site.
- ☒ A plot plan or map showing the location and direction of each photograph.

Attachment: A-6 and A-8

INDUSTRIAL WASTEWATER PERMIT APPLICATION

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

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

Attachment: SPIF

INDUSTRIAL WASTEWATER PERMIT APPLICATION CHECKLIST OF COMMON DEFICIENCIES

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

- ☒ Core Data Form (TCEQ Form No. 10400)
*(Required for all applications types. Must be completed in its entirety and signed.
Note: Form may be signed by applicant representative.)*
- ☒ Correct and Current Industrial Wastewater Permit Application Forms
(TCEQ Form Nos. 10055 and 10411. Version dated 5/10/2019 or later.)
- ☐ Water Quality Permit Payment Submittal Form (Page 14)
(Original payment sent to TCEQ Revenue Section. See instructions for mailing address.)
- ☒ 7.5 Minute USGS Quadrangle Topographic Map Attached
*(Full-size map if seeking "New" permit.
8 ½ x 11 acceptable for Renewals and Amendments.)*
- ☐ N/A ☒ Current/Non-Expired, Executed Lease Agreement or Easement Attached
- ☐ N/A ☒ Landowners Map
(See instructions for landowner requirements.)

Things to Know:

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

- ☐ N/A ☒ Landowners Labels and Cross Reference List
(See instructions for landowner requirements.)
- ☒ Electronic Application Submittal
(See application submittal requirements on page 23 of the instructions.)
- ☒ Original signature per 30 TAC § 305.44 – Blue Ink Preferred
*(If signature page is not signed by an elected official or principle executive officer,
a copy of signature authority/delegation letter must be attached.)*

☒ Summary of Application (in Plain Language)

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

SUPPLEMENTAL PERMIT INFORMATION FORM (SPIF)

FOR AGENCIES REVIEWING DOMESTIC OR INDUSTRIAL TPDES WASTEWATER PERMIT APPLICATIONS

TCEQ USE ONLY:

Application type: ____Renewal ____Major Amendment ____Minor Amendment ____New

County: _____ Segment Number: _____

Admin Complete Date: _____

Agency Receiving SPIF:

____ Texas Historical Commission

____ U.S. Fish and Wildlife

____ Texas Parks and Wildlife Department

____ U.S. Army Corps of Engineers

This form applies to TPDES permit applications only. (Instructions, Page 53)

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

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

The following applies to all applications:

1. Permittee: Oxbow Calcining LLC

Permit No. WQ00 1994000EPA ID No. TX 0068781

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

3901 Coke Dock Road, Port Arthur, Jefferson County TX

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

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

First and Last Name: Darla Smith

Credential (P.E, P.G., Ph.D., etc.): P.E.

Title: Environmental Manager

Mailing Address: PO Box C

City, State, Zip Code: Port Arthur, TX, 77641

Phone No.: 409-983-8467 Ext.:

Fax No.:

E-mail Address: darla.smith@oxbow.com

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

4. Provide a description of the effluent discharge route. The discharge route must follow the flow of effluent from the point of discharge to the nearest major watercourse (from the point of discharge to a classified segment as defined in 30 TAC Chapter 307). If known, please identify the classified segment number.

Outfall 004 consists of an underground pipe that runs from the neutralization tank to the West Turning Basin. Segment 0703 of Neches-Trinity Coastal Basin.

No changes to the discharge route of Outfall 001 (TPDES Permit WQ0001994000) are proposed.

5. Please provide a separate 7.5-minute USGS quadrangle map with the project boundaries plotted and a general location map showing the project area. Please highlight the discharge route from the point of discharge for a distance of one mile downstream. (This map is required in addition to the map in the administrative report).

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

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

- ☐ Proposed access roads, utility lines, construction easements
- ☐ Visual effects that could damage or detract from a historic property's integrity
- ☐ Vibration effects during construction or as a result of project design
- ☐ Additional phases of development that are planned for the future
- ☐ Sealing caves, fractures, sinkholes, other karst features

☐ Disturbance of vegetation or wetlands

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

N/A

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

The facility houses the administration area, production areas, loading/unloading docks, warehouses, storage yard, silos, stormwater management system, and parking areas.

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

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

The Site was originally developed as a calcining facility circa 1935

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

The Site is owned by The Kansas City Southern Railroad Company. The calcining plant was constructed on the site circa 1935 and has operated continuously since then.



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION

TECHNICAL REPORT 1.0

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

For **additional information** or clarification on the requested information, please refer to the [Instructions for Completing the Industrial Wastewater Permit Application](https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_steps.html)¹ available on the TCEQ website. Please contact the Industrial Permits Team at 512-239-4671 with any questions about this form.

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

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

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

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

The Site (SIC Code 2999) processes green petroleum coke in rotary kilns to produce calcined petroleum coke. Green coke is stored in open piles and calcined coke is stored in covered structures. Calcined coke is exported for use in the manufacture of anodes for the aluminum industry and the refining of titanium dioxide.

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

The Site operates under the TPDES Permit No. WQ0001994000 (Issued Date: December 21, 2023) which authorizes the treatment and discharge of waste through one external outfall (Outfall 001: treated wastewater and treated domestic wastewater) and two internal outfalls (Outfall 101: treated domestic wastewater and Outfall 102: reclaimed treated domestic wastewater). Current water-generating processes include stormwater runoff generated from production and service areas, main raw coke storage areas, loading dock areas, parking lot, roads, car wash, mobile equipment areas, paved areas washdown, dust suppression runoff, wastewater from vessel unloading, and some treated effluent from domestic wastewater. Domestic wastewater is collected from the Main Office, Lunchroom, Employee Change Buildings, Material Testing Laboratory, Operations Buildings and Building D and routed to an activated sludge package treatment plant.

The proposed permit amendment requests the addition of the intermittent and flow-variable discharge of treated wastewater through existing permitted Outfall 001, and new Outfall 004 from two waste heat recovery (WHR) boiler units and effluent from the boiler feed water treatment system. Operation of the proposed WHR boiler units is an integral part of Oxbow Clean Energy's (OCE) project consisting of the voluntary installation of air pollution control equipment on existing

¹

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

Kilns 3 and 5 (Selective Non-Catalytic Reduction [SNCR] and Flue-Gas Desulfurization [FGD]). Oxbow anticipates no liquid effluent discharges will be generated because of the operation of the SNCR and FGD units.

The treated boiler blowdown and regeneration waste effluent will be sent via new Internal Outfall 103 to the Primary Settling Reservoir for reuse on the FGD system, non-contact process cooling water for the kilns, dust suppression (rainbirds and water truck), and/or washdown of paved areas.

When the treated stream is not reused, the treated effluent will be discharged to the West Turning Basin through proposed Outfall 004 (i.e., same discharge location under former TPDES permit No. WQ0004725000). Occasional routing of commingled streams from the Primary Settling Reservoir to Outfall 001 would include previously monitored streams from Internal Outfall 103 if the commingled streams are not entirely reused.

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

Materials List

Raw Materials	Intermediate Products	Final Products
Green Petroleum Coke (CASRN 64741-79-3)		Calcined Petroleum Coke (CASRN 64743-05-1)
Water		Steam

Attachment: N/A

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

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

Attachment: H

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

☐ Yes ☒ No

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

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

☐ Yes ☒ No

List source(s) used to determine 100-year frequency flood plain: FEMA FRIM Panel No. 480385-0430B

If **no**, provide the elevation of the 100-year frequency flood plain and describe what protective measures are used/proposed to prevent flooding (including tail water and rainfall run-on controls) of the treatment facility and disposal area: The site elevation is 10 feet MSL. Shallow flooding of about 1 foot could occur during a 100 year-flood. The domestic treatment facility is an above-ground enclosed package unit. All pumps would be shut off during a flood event.

Attachment: N/A

- g. For **new** or **major amendment** permit applications, will any construction operations result in a discharge of fill material into a water in the state?
- ☐ Yes ☒ No ☐ N/A (renewal only)

- h. If **yes** to Item 1.g, has the applicant applied for a USACE CWA Chapter 404 Dredge and Fill permit?
- ☐ Yes ☐ No

If **yes**, provide the permit number: N/A

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

Item 2. Treatment System (Instructions, Page 40)

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

The proposed amendment includes the addition of liquid waste streams generated from the proposed WHR boilers and include: (1) demineralized regeneration effluent from the boiler feed water treatment system and (2) treated wastewater blowdown from the WHR boilers.

The demineralized regenerating solution will flow from the adjacent acid/caustic vessels through the appropriate ion-exchange resin beads and transfer into an accumulation/neutralization tank along with the WHR boilers blowdown effluent for pH adjustment by adding sulfuric acid and/or caustic soda solutions to the effluent.

The treated boiler blowdown and the regeneration waste effluent will be sent via new Internal Outfall 103 to the Primary Settling Reservoir for reuse on the FGD system, non-contact process cooling water for the kilns, dust suppression (rainbirds and water truck), and/or washdown of paved areas.

When the treated stream is not reused, the treated effluent will be discharged to the West Turning Basin through proposed Outfall 004 (i.e., same discharge location under former TPDES permit No. WQ0004725000). Occasional routing of commingled streams from the Primary Settling Reservoir to Outfall 001 would include previously monitored streams from Internal Outfall 103 if the commingled streams are not entirely reused.

Note that for clarification purposes and to avoid confusions with previously named permitted outfalls, Oxbow identified the new proposed outfalls as Outfall 004 (external outfall) and 103 (internal outfall).

- 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: T-2

Item 3. Impoundments (Instructions, Page 40)

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

☒ Yes ☐ No

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

- a. Complete the table with the following information for each existing, new, or proposed impoundment. Attach additional copies of the Impoundment Information table, if needed.

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

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

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

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

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

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

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

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

Impoundment Information

Parameter	Primary Settling Reservoir	Secondary Settling Reservoir	Pond #	Pond #
Use Designation: (T) (D) (C) or (E)	T	T		
Associated Outfall Number	001	001		
Liner Type (C) (I) (S) or (A)	None	None		
Alt. Liner Attachment Reference	N/A	N/A		
Leak Detection System, Y/N	N	N		
Groundwater Monitoring Wells, Y/N	N	N		
Groundwater Monitoring Data Attachment	N/A	N/A		
Pond Bottom Located Above The Seasonal High-Water Table, Y/N	Unknown	Unknown		

Parameter	Primary Settling Reservoir	Secondary Settling Reservoir	Pond #	Pond #
Length (ft)	800	220		
Width (ft)	300	110		
Max Depth From Water Surface (ft), Not Including Freeboard	9	4		
Freeboard (ft)	1.0	1.0		
Surface Area (acres)	6.45	0.55		
Storage Capacity (gallons)	16,000,000	1,300,000		
40 CFR Part 257, Subpart D, Y/N	N	N		
Date of Construction	Pre-1991	Pre-1991		

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**.

1. Liner data **N/A**

☐ Yes ☐ No ☐ Not yet designed

2. Leak detection system or groundwater monitoring data **N/A**

☐ Yes ☐ No ☐ Not yet designed

3. Groundwater impacts **N/A**

☐ Yes ☐ No ☐ Not yet designed

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

Attachment: N/A

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

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

Attachment: N/A

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

Attachment: N/A

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

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

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

If there are more outfalls/points of disposal at the facility than the spaces provided, copies of pages 6 and/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 Longitude and Latitude

Outfall No.	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)
001	29.837566	-93.967151
004	29.838853	-93.965614

Outfall Location Description

Outfall No.	Location Description
001	No change from the existing outfall location. Pipe near settling pond, from lift station after parshall flume. Directly to West Turning Basin.
004	New outfall. Pipe from neutralization tank to West Turning Basin.

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

Outfall No.	Description of sampling point
001	No change from the existing outfall location. Outlet of lift station pump before entering the West Turning Basin
004	New outfall. Outlet of neutralization tank before entering the West Turning Basin

Outfall Flow Information – Permitted and Proposed

Outfall No.	Permitted Daily Avg Flow (MGD)	Permitted Daily Max Flow (MGD)	Proposed Daily Avg Flow (MGD)	Proposed Daily Max Flow (MGD)	Anticipated Discharge Date (mm/dd/yy)
001	Report	Report	N/A	N/A	Ongoing
004	N/A	N/A	0.103	1.44	7/1/27

Outfall Discharge – Method and Measurement

Outfall No.	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used
001	Yes	No	Parshall Flume
004	Yes	No	Flowmeter

Outfall Discharge – Flow Characteristics

Outfall No.	Intermittent Discharge? Y/N	Continuous Discharge? Y/N	Seasonal Discharge? Y/N	Discharge Duration (hrs/day)	Discharge Duration (days/mo)	Discharge Duration (mo/yr)
001	Yes	No	No	24	30	12
004	Yes	No	No	24	30	12
101	Yes	No	No	24	30	12
102	Yes	No	No	24	30	12
103	Yes	No	No	24	30	12

Outfall Wastestream Contributions**Outfall No. 001**

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Stormwater runoff from the production and service areas	Variable	Variable
Stormwater runoff from the main raw coke storage areas	Variable	Variable
Stormwater runoff from the loading dock, parking lot, car wash, and entrance road	Variable	Variable
Stormwater runoff from the mobile equipment area	Variable	Variable
Stormwater runoff from the north storage areas	Variable	Variable
Washdown from the paved areas	Variable	Variable
Dust suppression water runoff	Variable	Variable
Wastewater from vessel unloading	Variable	Variable
Previously monitored effluent (treated domestic wastewater from internal Outfall 101)	Variable	Variable
Previously monitored effluent (treated boiler blow down and demineralized regeneration effluent from internal Outfall 103)	Variable	Variable

Outfall No. 004

Contributing Wastestream	Volume (MGD)	Percent (%) of Total Flow
Treated boiler blowdown from WHR boilers and demineralized regeneration effluent	Variable	100%

Attachment: N/A

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

a. Indicate if the facility currently or proposes to:

- ☐ Yes ☒ No Use cooling towers that discharge blowdown or other wastestreams
☒ Yes ☐ No Use boilers that discharge blowdown or other wastestreams
☐ Yes ☒ No Discharge once-through cooling water

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

b. If **yes** to any of the above, attach an SDS with the following information for each chemical additive.

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

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

Attachment: T-6

c. Cooling Towers and Boilers

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

Cooling Towers and Boilers

Type of Unit	Number of Units	Daily Avg Blowdown (gallons/day)	Daily Max Blowdown (gallons/day)
Cooling Towers	N/A	N/A	N/A
Boilers	2	30,240	43,200

Item 6. Stormwater Management (Instructions, Page 44)

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

☒ Yes ☐ No

If **yes**, briefly describe the industrial processes and activities that occur outdoors or in a manner which may result in exposure of the activities or materials to stormwater: Other than the permitted processes and activities associated with the current calcining process, none of the materials or industrial processes associated with the proposed amendment will result in exposure to stormwater. All raw materials and waste associated with the new proposed amendment will be stored indoors and/or inside closed containers to be in areas equipped with secondary containment.

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

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

- a. Check the box next to the appropriate method of domestic sewage and domestic sewage sludge treatment or disposal. Complete Worksheet 5.0 or Item 7.b if directed to do so.
- ☐ Domestic sewage is routed (i.e., connected to or transported to) to a WWTP permitted to receive domestic sewage for treatment, disposal, or both. Complete Item 7.b.
 - ☐ Domestic sewage disposed of by an on-site septic tank and drainfield system. Complete Item 7.b.
 - ☐ Domestic and industrial treatment sludge ARE commingled prior to use or disposal.
 - ☐ Industrial wastewater and domestic sewage are treated separately, and the respective sludge IS NOT commingled prior to sludge use or disposal. Complete Worksheet 5.0.
 - ☐ Facility is a POTW. Complete Worksheet 5.0.
 - ☐ Domestic sewage is not generated on-site.
 - ☒ Other (e.g., portable toilets), specify and Complete Item 7.b: **No modifications to the current domestic sewage management practices are proposed. The facility treats domestic sewage on site with an extended aeration package plant. The effluent is normally reclaimed on site. When the effluent is not reclaimed (Internal Outfalls 101 and 102) it is discharged via Outfall 001 to the West Turning Basin. Sludge generated by the package plant is transported off site to the City of Port Arthur, Port Acres Wastewater Treatment Plant.**
- b. Provide the name and TCEQ, NPDES, or TPDES Permit No. of the waste-disposal facility which receives the domestic sewage/septage. If hauled by motorized vehicle, provide the name and TCEQ Registration No. of the hauler.

Domestic Sewage Plant/Hauler Name

Plant/Hauler Name	Permit/Registration No.
Plant: City of Port Arthur, Port Acres WWTP	WQ0010364002
Hauler: Sprint Waste Service, LP	23833

Item 8. Improvements or Compliance/Enforcement Requirements (Instructions, Page 45)

- a. Is the permittee currently required to meet any implementation schedule for compliance or enforcement?
☐ Yes ☒ No
- b. Has the permittee completed or planned for any improvements or construction projects?
☒ Yes ☐ No
- c. If **yes** to either 8.a or 8.b, provide a brief summary of the requirements and a status update: Site improvements associated with the proposed amendment include the construction activities related to the installation of air emission control equipment (e.g., installation of footers, installation of equipment and piping supporting structures, etc.), replacement of WHR boiler units, and restoration of ancillary equipment needed for the operation of the WHR boiler units (e.g., replacement of process piping and supporting structures). All construction activities will be limited to the already developed production area. WHR boiler replacements are scheduled for October 2025- July 2026. Flue Gas Desulfurization install is scheduled for October 2026-September 2027 and restoration of ancillary facilities will extend to 2027.

Item 9. Toxicity Testing (Instructions, Page 45)

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

☐ Yes ☒ No

If **yes**, identify the tests and describe their purposes: N/A

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

Item 10. Off-Site/Third Party Wastes (Instructions, Page 45)

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

☒ Yes ☐ No

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

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

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

Attachment: T-4

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

☐ Yes ☒ No

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

Attachment: N/A

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

☐ Yes ☒ No

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

Item 11. Radioactive Materials (Instructions, Page 46)

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

☒ Yes ☐ No

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

Radioactive Materials Mined, Used, Stored, or Processed

Radioactive Material Name	Concentration (pCi/L)
Uncovered refractory could be possibly present as low-level NORM	N/A

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

☐ Yes ☒ No

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

Radioactive Materials Present in the Discharge

Radioactive Material Name	Concentration (pCi/L)
N/A	

Item 12. Cooling Water (Instructions, Page 46)

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

- ☒ Yes
☐ No
☐ Decommissioned: [Click to enter text.](#)
☐ To Be Decommissioned: [Click to enter text.](#)

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

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

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

b. Cooling water is/will be obtained from a groundwater source (e.g., on-site well).

- ☐ Yes ☒ No

If **yes**, stop here. If **no**, continue.

c. Cooling Water Supplier

1. Provide the name of the owner(s) and operator(s) for the CWIS that supplies or will supply water for cooling purposes to the facility.

Cooling Water Intake Structure(s) Owner(s) and Operator(s)

CWIS ID	N/A			
Owner				
Operator				

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

☐ No ☒ Yes; PWS No.: PWS No. TX1230009 and TX0360112

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

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

☐ No ☒ Yes; Auth No.: Onsite stormwater retention ponds (WQ0001994000).

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

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

☒ No ☒ Yes; AIF: N/A

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

d. 316(b) General Criteria

1. The CWIS(s) used to provide water for cooling purposes to the facility has or will have a cumulative design intake flow of 2 MGD or greater.

☐ Yes ☐ No

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

☐ Yes ☒ No

3. The CWIS(s) withdraw(s)/propose(s) to withdraw water for cooling purposes from surface waters that meet the definition of Waters of the United States in *40 CFR § 122.2*.

☒ Yes ☐ No. Explanation: N/A

If **no**, provide an explanation of how the waterbody does not meet the definition of Waters of the United States in *40 CFR § 122.2*.

If **yes** to all three questions in Item 12.d, the facility **meets** the minimum criteria to be subject to the full requirements of Section 316(b) of the CWA. Proceed to **Item 12.f**.

If **no** to any of the questions in Item 12.d, the facility **does not meet** the minimum criteria to be subject to the full requirements of Section 316(b) of the CWA; however, a determination is required based upon BPJ. Proceed to **Item 12.e**.

- e. The facility does not meet the minimum requirements to be subject to the fill requirements of Section 316(b) **and uses/proposes to use cooling towers**.

☐ Yes ☒ No

If **yes**, stop here. If **no**, complete Worksheet 11.0, Items 1.a, 1.b.1-3 and 6, 2.b.1, and 3.a to allow for a determination based upon BPJ.

f. Oil and Gas Exploration and Production

1. The facility is subject to requirements at 40 CFR Part 435, Subparts A or D.

☐ Yes ☒ No

If **yes**, continue. If **no**, skip to Item 12.g.

2. The facility is an existing facility as defined at 40 CFR § 125.92(k) or a new unit at an existing facility as defined at 40 CFR § 125.92(u).

☐ Yes ☒ No

If **yes**, complete Worksheet 11.0, Items 1.a, 1.b.1-3 and 6, 2.b.1, and 3.a to allow for a determination based upon BPJ. If **no**, skip to Item 12.g.3.

g. Compliance Phase and Track Selection

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

☐ Yes ☒ No

If **yes**, check the box next to the compliance track selection, attach the requested information, and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.

☐ Track I - AIF greater than 2 MGD, but less than 10 MGD

- Attach information required by *40 CFR §§ 125.86(b)(2)-(4)*.

☐ Track I - AIF greater than 10 MGD

- Attach information required by *40 CFR § 125.86(b)*.

☐ Track II

- Attach information required by 40 CFR § 125.86(c).

Attachment: N/A

2. Phase II – Existing facility subject to 40 CFR Part 125, Subpart J

☐ Yes ☒ No

If **yes**, complete Worksheets 11.0 through 11.3, as applicable.

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

☐ Yes ☒ No

If **yes**, check the box next to the compliance track selection and provide the requested information.

☐ Track I – Fixed facility

- Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Items 2 and 3, and Worksheet 11.2.

☐ Track I – Not a fixed facility

- Attach information required by 40 CFR § 125.136(b) and complete Worksheet 11.0, Item 2 (except CWIS latitude/longitude under Item 2.a).

☐ Track II – Fixed facility

- Attach information required by 40 CFR § 125.136(c) and complete Worksheet 11.0, Items 2 and 3.

Attachment: N/A

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

This item is only applicable to existing permitted facilities.

a. Is the facility requesting a **major amendment** of an existing permit?

☒ Yes ☐ No

If **yes**, list each request individually and provide the following information: 1) detailed information regarding the scope of each request and 2) a justification for each request. Attach any supplemental information or additional data to support each request.

The proposed permit amendment is for the addition of a new outfall, designated as 004, and modification to treated wastewaters discharged through existing Outfall 001 to include the intermittent and flow-variable discharge of treated wastewater from two waste heat recovery (WHR) boiler units and effluent from the associated boiler feed water treatment system.

Operation of the proposed WHR units is an integral part of Oxbow Clean Energy's (OCE) project consisting of the voluntary installation of air pollution control equipment on existing Kilns 3 and 5 (Selective Non-Catalytic Reduction [SNCR] and Flue-Gas Desulfurization [FGD]). Oxbow anticipates no liquid effluent discharges will be generated as a result of the operation of the SNCR and FGD units.

Liquid waste streams generated from the proposed WHR boilers include: (1) treated wastewater blowdown from the boilers and (2) demineralized regeneration effluent. Treatment for the boiler feed water consists of the use (on a rotating basis) of one of three demineralizer primary trains.

After extended use, the resin beads become spent and clogged with trapped ions. A conductivity meter installed at the outlet of the demineralizer indicates when resin regeneration is required. Spent resin is regenerated by backwashing with solutions of sulfuric acid for the cation resin and caustic soda for the anion vessel. The regenerating solutions will flow from the adjacent acid/caustic vessel through the appropriate ion-exchange resin beads, and then into a wastewater accumulation tank.

Boiler blowdown from each of the WHR boilers and the demineralizer regeneration effluent, referenced above, will be routed to the wastewater neutralization tank for pH adjustment by adding sulfuric acid and/or caustic soda solutions to the effluent. The treated boiler blowdown and regeneration waste effluent will be sent via Internal Outfall 103 to the Primary Settling Reservoir for reuse on the FGD system, non-contact process cooling water for the kilns, dust suppression (rainbirds and water truck), and/or washdown of paved areas.

When the treated stream is not reused, the treated effluent will be discharged to the West Turning Basin through proposed Outfall 004 (i.e., same discharge location under former TPDES permit No. WQ0004725000). Occasional routing of commingled streams from the Primary Settling Reservoir to Outfall 001 would include previously monitored streams from Internal Outfall 103 if the commingled streams are not entirely reused.

See Attachment T-5 for additional information.

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

☐ Yes ☒ No

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

N/A

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

☐ Yes ☒ No

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

N/A

Item 14. Laboratory Accreditation (Instructions, Page 49)

All laboratory tests performed must meet the requirements of *30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification*, which includes the following

general exemptions from National Environmental Laboratory Accreditation Program (NELAP) certification requirements:

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

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

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

CERTIFICATION:

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

Printed Name: N/A

Title: N/A

Signature: _____

Date: _____

Note:

- **As per TCEQ's Instructions for Completing the Industrial Wastewater Permit Application document (10411_10055-inst, 09/13/24), Worksheet 2.0 Item 1, the facility has not generated the proposed waste stream and, as such, presents analytical results from a similar facility (i.e., Port Arthur Steam Energy, LP (TPDES Minor Permit No. WQ0004725000, Current Status: Cancelled, Expiration Date: 10/23/2023).**

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 2.0: POLLUTANT ANALYSIS

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

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

- a. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): PASE TPDES Application March 2015
- b. ☐ Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.

Note: The facility has not generated the proposed waste streams (Outfalls 004 and 103). The presented data corresponds to analytical results from a similar facility (i.e., Port Arthur Steam Energy, LP, Permit renewal Application, March 2015 [TPDES Minor Permit No. WQ0004725000]). The data provided will also be applicable to existing Outfall 001, as the proposed effluent, when not reused, will be discharged through Outfall 001 via the Primary Settling Reservoir.

- 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: N/A

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

Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. **Attachment:** See item 1.b above

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.: 004/103 (Data from TPDES Minor Permit WQ00042750)

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)	16.0	10	8.3	<4.0
CBOD (5-day)	19.0	9.2	8.1	<4.0
Chemical oxygen demand	64	160	22	26
Total organic carbon	21.1	53.8	7.78	6.82
Dissolved oxygen	6.3	4.3	5.8	8.5
Ammonia nitrogen	0.52	0.7	0.46	0.92

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)
Total suspended solids	4.2	7.8	4.2	4.8
Nitrate nitrogen	<0.50	<0.50	<0.50	<0.50
Total organic nitrogen	0.97		1.46	0.30
Total phosphorus	<0.20	0.26	0.22	0.35
Oil and grease	>2.3	<2.4	<2.5	<2.3
Total residual chlorine	0.4	0.3	0.1	1.3
Total dissolved solids	1740	5980	442	428
Sulfate	818	3200	203	205
Chloride	70.0	218	17.0	15.0
Fluoride	0.23	0.81	<0.10	<0.10
Total alkalinity (mg/L as CaCO ₃)				
Temperature (°F)	91.4	93.2	87.8	91.4
pH (standard units)	7.7	7.8	7.6	7.8

Table 2 for Outfall No.: **004/103 (Data from TPDES Minor Permit WQ00042750)**

Samples are (check one): ☐ Composite ☒ Grab

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Aluminum, total	52	<30	<30	<30	2.5
Antimony, total	<30	<30	<30	<30	5
Arsenic, total	<10	<10	<10	<10	0.5
Barium, total	68	102	63	39	3
Beryllium, total	<5	<5	<5	<5	0.5
Cadmium, total	<1	<1	<1	<1	1
Chromium, total	<10	12	<10	<10	3
Chromium, hexavalent	<5	<5	<5	<5	3
Chromium, trivalent	<10	12	<10	<10	N/A
Copper, total	11	27	103	<3	2
Cyanide, available	<5	<5	<5	<5	2/10
Lead, total	<5	<5	<5	<5	0.5
Mercury, total	<0.2	<0.2	<0.2	<0.22	0.005/0.0005
Nickel, total	<10	12	<10	<10	2
Selenium, total	<10	<10	<10	<10	5
Silver, total	>2	<2	<2	<2	0.5

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	MAL (µg/L)
Thallium, total	<10	<10	<10	<10	0.5
Zinc, total	8	13	<5	<5	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.: 004/103 (Data from TPDES Minor Permit WQ00042750)

Samples are (check one): ☐ Composite ☒ Grab					
Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Acrylonitrile	<20	<20	<20	<20	50
Anthracene	<5	<5	<5	<5	10
Benzene	<5	<5	<5	<5	10
Benzidine	<5	<5	<5	<5	50
Benzo(a)anthracene	<5	<5	<5	<5	5
Benzo(a)pyrene	<5	<5	<5	<5	5
Bis(2-chloroethyl)ether	<5	<5	<5	<5	10
Bis(2-ethylhexyl)phthalate	<5	<5	<5	<5	10
Bromodichloromethane [Dichlorobromomethane]	<5	8	<5	<5	10
Bromoform	<5	<5	<5	<5	10
Carbon tetrachloride	<5	<5	<5	<5	2
Chlorobenzene	<5	<5	<5	<5	10
Chlorodibromomethane [Dibromochloromethane]	<5	<5	<5	<5	10
Chloroform	100	145	99	<5	10
Chrysene	<5	<5	<5	<5	5
m-Cresol [3-Methylphenol]	<5	<5	<5	<5	10
o-Cresol [2-Methylphenol]	<5	<5	<5	<5	10
p-Cresol [4-Methylphenol]	<5	<5	<5	<5	10
1,2-Dibromoethane	<2	<2	<2	<2	10
m-Dichlorobenzene [1,3-Dichlorobenzene]	<5	<5	<5	<5	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]	<5	<5	<5	<5	10
p-Dichlorobenzene [1,4-Dichlorobenzene]	<5	<5	<5	<5	10
3,3'-Dichlorobenzidine	<5	<5	<5	<5	5
1,2-Dichloroethane	<5	<5	<5	<5	10
1,1-Dichloroethene [1,1-Dichloroethylene]	<5	<5	<5	<5	10
Dichloromethane [Methylene chloride]	<5	<5	<5	<5	20
1,2-Dichloropropane	<5	<5	<5	<5	10
1,3-Dichloropropene [1,3-Dichloropropylene]	<5	<5	<5	<5	10
2,4-Dimethylphenol	<5	<5	<5	<5	10
Di-n-Butyl phthalate	7	<5	<5	<5	10
Epichlorohydrin (1-Chloro-2,3-epoxypropane)					---
Ethylbenzene	<5	<5	<5	<5	10
Ethylene Glycol					---
Fluoride	230	810	<100	<100	500
Hexachlorobenzene	<5	<5	<5	<5	5
Hexachlorobutadiene	<5	<5	<5	<5	10
Hexachlorocyclopentadiene	<5	<5	<5	<5	10
Hexachloroethane	<5	<5	<5	<5	20
4,4'-Isopropylidenediphenol (bisphenol A)					1
Methyl ethyl ketone	<10	<10	<10	<10	50
Methyl tert-butyl ether (MTBE)					---
Nitrobenzene	<5	<5	<5	<5	10
N-Nitrosodiethylamine	<5	<5	<5	<5	20
N-Nitroso-di-n-butylamine	<5	<5	<5	<5	20
Nonylphenol					333
Pentachlorobenzene	<5	<5	<5	<5	20
Pentachlorophenol	<10	<10	<10	<10	5
Phenanthrene	<5	<5	<5	<5	10

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Polychlorinated biphenyls (PCBs) (**)	<1	<1	<1	<1	0.2
Pyridine	<5	<5	<5	<5	20
1,2,4,5-Tetrachlorobenzene	<5	<5	<5	<5	20
1,1,2,2-Tetrachloroethane	<5	<5	<5	<5	10
Tetrachloroethene [Tetrachloroethylene]	<5	<5	<5	<5	10
Toluene	<5	<5	<5	<5	10
1,1,1-Trichloroethane	<5	<5	<5	<5	10
1,1,2-Trichloroethane	<5	<5	<5	<5	10
Trichloroethene [Trichloroethylene]	<5	<5	<5	<5	10
2,4,5-Trichlorophenol	<5	<5	<5	<5	50
TTHM (Total trihalomethanes)	<5	152	99	<5	10
Vinyl chloride	<5	<5	<5	<5	10

(*) Indicate units if different from µg/L.

(**) Total of detects for PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, and PCB-1016. If all non-detects, enter the highest non-detect preceded by a "<".

TABLE 4 (Instructions, Pages 58-59)

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

a. Tributyltin

Is this facility an industrial/commercial facility which currently or proposes to directly dispose of wastewater from the types of operations listed below or a domestic facility which currently or proposes to receive wastewater from the types of industrial/commercial operations listed below?

☐ Yes ☒ No

If **yes**, check the box next to each of the following criteria which apply and provide the appropriate testing results in Table 4 below (check all that apply).

- ☐ Manufacturers and formulators of tributyltin or related compounds.
- ☐ Painting of ships, boats and marine structures.
- ☐ Ship and boat building and repairing.
- ☐ Ship and boat cleaning, salvage, wrecking and scaling.
- ☐ Operation and maintenance of marine cargo handling facilities and marinas.
- ☐ Facilities engaged in wood preserving.
- ☐ Any other industrial/commercial facility for which tributyltin is known to be

present, or for which there is any reason to believe that tributyltin may be present in the effluent.

b. Enterococci (discharge to saltwater)

This facility discharges/proposes to discharge directly into saltwater receiving waters **and** Enterococci bacteria are expected to be present in the discharge based on facility processes.

☐ Yes ☒ No

Domestic wastewater is/will be discharged.

☐ Yes ☒ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

c. E. coli (discharge to freshwater)

This facility discharges/proposes to discharge directly into freshwater receiving waters **and** *E. coli* bacteria are expected to be present in the discharge based on facility processes.

☐ Yes ☒ No

Domestic wastewater is/will be discharged.

☐ Yes ☒ No

If **yes to either** question, provide the appropriate testing results in Table 4 below.

Table 4 for Outfall No.: N/A

Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1	Sample 2	Sample 3	Sample 4	MAL
Tributyltin (µg/L)					0.010
Enterococci (cfu or MPN/100 mL)					N/A
<i>E. coli</i> (cfu or MPN/100 mL)					N/A

TABLE 5 (Instructions, Page 59)

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

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

☒ N/A

Table 5 for Outfall No.: N/A

Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
Aldrin					0.01
Carbaryl					5
Chlordane					0.2
Chlorpyrifos					0.05
4,4'-DDD					0.1

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)*
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 (<i>alpha</i>)					0.01
Endosulfan II (<i>beta</i>)					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Guthion [Azinphos methyl]					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
Hexachlorocyclohexane (<i>alpha</i>)					0.05
Hexachlorocyclohexane (<i>beta</i>)					0.05
Hexachlorocyclohexane (<i>gamma</i>) [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.: **004/103 (Data from TPDES Minor Permit WQ00042750)**

Samples are (check one): ☐ Composite ☒ Grab

Pollutants	Believed Present	Believed Absent	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)	MAL (µg/L)*
Bromide	☒	☐	<0.2				400
Color (PCU)	☐	☒					—
Nitrate-Nitrite (as N)	☒	☐	<1.0				—
Sulfide (as S)	☐	☒					—
Sulfite (as SO ₃)	☐	☒					—
Surfactants	☐	☒					—
Boron, total	☒	☐	0.334				20
Cobalt, total	☐	☒					0.3
Iron, total	☒	☐	0.266				7
Magnesium, total	☒	☐	23.6				20
Manganese, total	☐	☒					0.5
Molybdenum, total	☐	☒					1
Tin, total	☐	☒					5
Titanium, total	☐	☒					30

TABLE 7 (Instructions, Page 60)

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

☒ N/A

Table 7 for Applicable Industrial Categories

Industrial Category	40 CFR Part	Volatiles Table 8	Acids Table 9	Bases/Neutrals Table 10	Pesticides Table 11
☐ Adhesives and Sealants		☐ Yes	☐ Yes	☐ Yes	No
☐ Aluminum Forming	467	☐ Yes	☐ Yes	☐ Yes	No
☐ Auto and Other Laundries		☐ Yes	☐ Yes	☐ Yes	☐ Yes
☐ Battery Manufacturing	461	☐ Yes	No	☐ Yes	No
☐ Coal Mining	434	No	No	No	No
☐ Coil Coating	465	☐ Yes	☐ Yes	☐ Yes	No
☐ Copper Forming	468	☐ Yes	☐ Yes	☐ Yes	No
☐ Electric and Electronic Components	469	☐ Yes	☐ Yes	☐ Yes	☐ Yes
☐ Electroplating	413	☐ Yes	☐ Yes	☐ Yes	No
☐ Explosives Manufacturing	457	No	☐ Yes	☐ Yes	No
☐ Foundries		☐ Yes	☐ Yes	☐ Yes	No
☐ Gum and Wood Chemicals - Subparts A,B,C,E	454	☐ Yes	☐ Yes	No	No
☐ Gum and Wood Chemicals - Subparts D,F	454	☐ Yes	☐ Yes	☐ Yes	No
☐ Inorganic Chemicals Manufacturing	415	☐ Yes	☐ Yes	☐ Yes	No
☐ Iron and Steel Manufacturing	420	☐ Yes	☐ Yes	☐ Yes	No
☐ Leather Tanning and Finishing	425	☐ Yes	☐ Yes	☐ Yes	No
☐ Mechanical Products Manufacturing		☐ Yes	☐ Yes	☐ Yes	No
☐ Nonferrous Metals Manufacturing	421,471	☐ Yes	☐ Yes	☐ Yes	☐ Yes
☐ Oil and Gas Extraction - Subparts A, D, E, F, G, H	435	☐ Yes	☐ Yes	☐ Yes	No
☐ Ore Mining - Subpart B	440	No	☐ Yes	No	No
☐ Organic Chemicals Manufacturing	414	☐ Yes	☐ Yes	☐ Yes	☐ Yes
☐ Paint and Ink Formulation	446,447	☐ Yes	☐ Yes	☐ Yes	No
☐ Pesticides	455	☐ Yes	☐ Yes	☐ Yes	☐ Yes
☐ Petroleum Refining	419	☐ Yes	No	No	No
☐ Pharmaceutical Preparations	439	☐ Yes	☐ Yes	☐ Yes	No
☐ Photographic Equipment and Supplies	459	☐ Yes	☐ Yes	☐ Yes	No
☐ Plastic and Synthetic Materials Manufacturing	414	☐ Yes	☐ Yes	☐ Yes	☐ Yes
☐ Plastic Processing	463	☐ Yes	No	No	No
☐ Porcelain Enameling	466	No	No	No	No
☐ Printing and Publishing		☐ Yes	☐ Yes	☐ Yes	☐ Yes
☐ Pulp and Paperboard Mills - Subpart C	430	☐ *	☐ Yes	☐ *	☐ Yes
☐ Pulp and Paperboard Mills - Subparts F, K	430	☐ *	☐ Yes	☐ *	☐ *
☐ Pulp and Paperboard Mills - Subparts A, B, D, G, H	430	☐ Yes	☐ Yes	☐ *	☐ *
☐ Pulp and Paperboard Mills - Subparts I, J, L	430	☐ Yes	☐ Yes	☐ *	☐ Yes
☐ Pulp and Paperboard Mills - Subpart E	430	☐ Yes	☐ Yes	☐ Yes	☐ *
☐ Rubber Processing	428	☐ Yes	☐ Yes	☐ Yes	No
☐ Soap and Detergent Manufacturing	417	☐ Yes	☐ Yes	☐ Yes	No
☐ Steam Electric Power Plants	423	☐ Yes	☐ Yes	No	No
☐ 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.: N/A

Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Acrolein					50
Acrylonitrile					50
Benzene					10
Bromoform					10
Carbon tetrachloride					2
Chlorobenzene					10
Chlorodibromomethane					10
Chloroethane					50
2-Chloroethylvinyl ether					10
Chloroform					10
Dichlorobromomethane [Bromodichloromethane]					10
1,1-Dichloroethane					10
1,2-Dichloroethane					10
1,1-Dichloroethylene [1,1-Dichloroethene]					10
1,2-Dichloropropane					10
1,3-Dichloropropylene [1,3-Dichloropropene]					10
Ethylbenzene					10
Methyl bromide [Bromomethane]					50
Methyl chloride [Chloromethane]					50
Methylene chloride [Dichloromethane]					20
1,1,2,2-Tetrachloroethane					10
Tetrachloroethylene [Tetrachloroethene]					10
Toluene					10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]					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					10
1,1,2-Trichloroethane					10
Trichloroethylene [Trichloroethene]					10
Vinyl chloride					10

* Indicate units if different from µg/L.

Table 9 for Outfall No.: N/A

Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
2-Chlorophenol					10
2,4-Dichlorophenol					10
2,4-Dimethylphenol					10
4,6-Dinitro-o-cresol					50
2,4-Dinitrophenol					50
2-Nitrophenol					20
4-Nitrophenol					50
p-Chloro-m-cresol					10
Pentachlorophenol					5
Phenol					10
2,4,6-Trichlorophenol					10

* Indicate units if different from µg/L.

Table 10 for Outfall No.: N/A

Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Acenaphthene					10
Acenaphthylene					10
Anthracene					10
Benzidine					50
Benzo(a)anthracene					5
Benzo(a)pyrene					5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]					10
Benzo(ghi)perylene					20
Benzo(k)fluoranthene					5
Bis(2-chloroethoxy)methane					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					10
Bis(2-chloroisopropyl)ether					10
Bis(2-ethylhexyl)phthalate					10
4-Bromophenyl phenyl ether					10
Butylbenzyl phthalate					10
2-Chloronaphthalene					10
4-Chlorophenyl phenyl ether					10
Chrysene					5
Dibenzo(a,h)anthracene					5
1,2-Dichlorobenzene [o-Dichlorobenzene]					10
1,3-Dichlorobenzene [m-Dichlorobenzene]					10
1,4-Dichlorobenzene [p-Dichlorobenzene]					10
3,3'-Dichlorobenzidine					5
Diethyl phthalate					10
Dimethyl phthalate					10
Di-n-butyl phthalate					10
2,4-Dinitrotoluene					10
2,6-Dinitrotoluene					10
Di-n-octyl phthalate					10
1,2-Diphenylhydrazine (as Azobenzene)					20
Fluoranthene					10
Fluorene					10
Hexachlorobenzene					5
Hexachlorobutadiene					10
Hexachlorocyclopentadiene					10
Hexachloroethane					20
Indeno(1,2,3-cd)pyrene					5
Isophorone					10
Naphthalene					10
Nitrobenzene					10
N-Nitrosodimethylamine					50

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
N-Nitrosodi-n-propylamine					20
N-Nitrosodiphenylamine					20
Phenanthrene					10
Pyrene					10
1,2,4-Trichlorobenzene					10

* Indicate units if different from µg/L.

Table 11 for Outfall No.: N/A

Samples are (check one): ☐ Composite ☐ Grab

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
Aldrin					0.01
alpha-BHC [alpha-Hexachlorocyclohexane]					0.05
beta-BHC [beta-Hexachlorocyclohexane]					0.05
gamma-BHC [gamma-Hexachlorocyclohexane]					0.05
delta-BHC [delta-Hexachlorocyclohexane]					0.05
Chlordane					0.2
4,4'-DDT					0.02
4,4'-DDE					0.1
4,4'-DDD					0.1
Dieldrin					0.02
Endosulfan I (alpha)					0.01
Endosulfan II (beta)					0.02
Endosulfan sulfate					0.1
Endrin					0.02
Endrin aldehyde					0.1
Heptachlor					0.01
Heptachlor epoxide					0.01
PCB 1242					0.2
PCB 1254					0.2
PCB 1221					0.2
PCB 1232					0.2
PCB 1248					0.2

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	MAL (µg/L)
PCB 1260					0.2
PCB 1016					0.2
Toxaphene					0.3

* Indicate units if different from µg/L.

Attachment: N/A

TABLE 12 (DIOXINS/FURAN COMPOUNDS)

Complete of Table 12 **is required** for **external outfalls**, as directed below. (Instructions, Pages 59-60)

Indicate which compound(s) are manufactured or used at the facility and provide a brief description of the conditions of its/their presence at the facility (check all that apply).

- ☐ 2,4,5-trichlorophenoxy acetic acid (2,4,5-T) CASRN 93-76-5
- ☐ 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP) CASRN 93-72-1
- ☐ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) CASRN 136-25-4
- ☐ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnell) CASRN 299-84-3
- ☐ 2,4,5-trichlorophenol (TCP) CASRN 95-95-4
- ☐ hexachlorophene (HCP) CASRN 70-30-4
- ☒ None of the above

Description: N/A

Does the applicant or anyone at the facility know or have any reason to believe that 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) or any congeners of TCDD may be present in the effluent proposed for discharge?

- ☐ Yes ☒ No

Description: N/A

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

Table 12 for Outfall No.: Click to enter text. Samples are (check one): ☐ Composite ☐ Grab

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDD	1					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

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
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, Pages 60-61)

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

☐ Yes ☒ No

Are there pollutants listed in Item 1.c. of Technical Report 1.0 which are believed present in the discharge and have not been analytically quantified elsewhere in this application?

☐ Yes ☒ No

If **yes** to either Items a or b, complete Table 13 as instructed.

Table 13 for Outfall No.: N/A

Samples are (check one): ☐ Composite ☐ Grab

Pollutant	CASRN	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Analytical Method

INDUSTRIAL WASTEWATER PERMIT APPLICATION

WORKSHEET 4.0: RECEIVING WATERS

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

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

- a. There is a surface water intake for domestic drinking water supply located within 5 (five) miles downstream from the point/proposed point of discharge.

☐ Yes ☒ No

If **no**, stop here and proceed to Item 2. If **yes**, provide the following information:

1. The legal name of the owner of the drinking water supply intake: [Click to enter text.](#)
2. The distance and direction from the outfall to the drinking water supply intake: [Click to enter text.](#)

- b. Locate and identify the intake on the USGS 7.5-minute topographic map provided for Administrative Report 1.0.

☐ Check this box to confirm the above requested information is provided.

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

If the discharge is to tidally influenced waters, complete this section. Otherwise, proceed to Item 3.

- a. Width of the receiving water at the outfall: 400 feet

- b. Are there oyster reefs in the vicinity of the discharge?

☐ Yes ☒ No

If **yes**, provide the distance and direction from the outfall(s) to the oyster reefs: N/A

- c. Are there sea grasses within the vicinity of the point of discharge?

☐ Yes ☒ No

If **yes**, provide the distance and direction from the outfall(s) to the grasses: N/A

Item 3. Classified Segment (Instructions, Page 80)

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

☒ Yes ☐ No

If **yes**, stop here and do not complete Items 4 and 5 of this worksheet or Worksheet 4.1.

If **no**, complete Items 4 and 5 and Worksheet 4.1 may be required.

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

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

b. Check the appropriate description of the immediate receiving waters:

☐ Lake or Pond

- Surface area (acres): [Click to enter text.](#)
- Average depth of the entire water body (feet): [Click to enter text.](#)
- Average depth of water body within a 500-foot radius of the discharge point (feet): [Click to enter text.](#)

☐ Man-Made Channel or Ditch

☐ Stream or Creek

☐ Freshwater Swamp or Marsh

☐ Tidal Stream, Bayou, or Marsh

☐ Open Bay

☐ Other, specify:

If **Man-Made Channel or Ditch** or **Stream or Creek** were selected above, provide responses to Items 4.c – 4.g below:

c. For **existing discharges**, check the description below that best characterizes the area **upstream** of the discharge.

For **new discharges**, check the description below that best characterizes the area **downstream** of the discharge.

☐ Intermittent (dry for at least one week during most years)

☐ Intermittent with Perennial Pools (enduring pools containing habitat to maintain aquatic life uses)

☐ Perennial (normally flowing)

Check the source(s) of the information used to characterize the area upstream (existing discharge) or downstream (new discharge):

☐ USGS flow records

☐ personal observation

☐ historical observation by adjacent landowner(s)

☐ other, specify: [Click to enter text.](#)

d. List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point: [Click to enter text.](#)

e. The receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.).

☐ Yes

☐ No

If **yes**, describe how: [Click to enter text.](#)

- f. General observations of the water body during normal dry weather conditions: [Click to enter text.](#)

Date and time of observation: [Click to enter text.](#)

- g. The water body was influenced by stormwater runoff during observations.

☐ Yes ☐ No

If **yes**, describe how: [Click to enter text.](#)

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

- a. Is the receiving water upstream of the existing discharge or proposed discharge site influenced by any of the following (check all that apply):

☐ oil field activities	☐ urban runoff
☐ agricultural runoff	☐ septic tanks
☐ upstream discharges	☐ other, specify: Click to enter text.

- b. Uses of water body observed or evidence of such uses (check all that apply):

☐ livestock watering	☐ industrial water supply
☐ non-contact recreation	☐ irrigation withdrawal
☐ domestic water supply	☐ navigation
☐ contact recreation	☐ picnic/park activities
☐ fishing	☐ other, specify: Click to enter text.

- c. Description which best describes the aesthetics of the receiving water and the surrounding area (check only one):

☐ **Wilderness:** outstanding natural beauty; usually wooded or un-pastured area: water clarity exceptional

☐ **Natural Area:** trees or native vegetation common; some development evident (from fields, pastures, dwellings); water clarity discolored

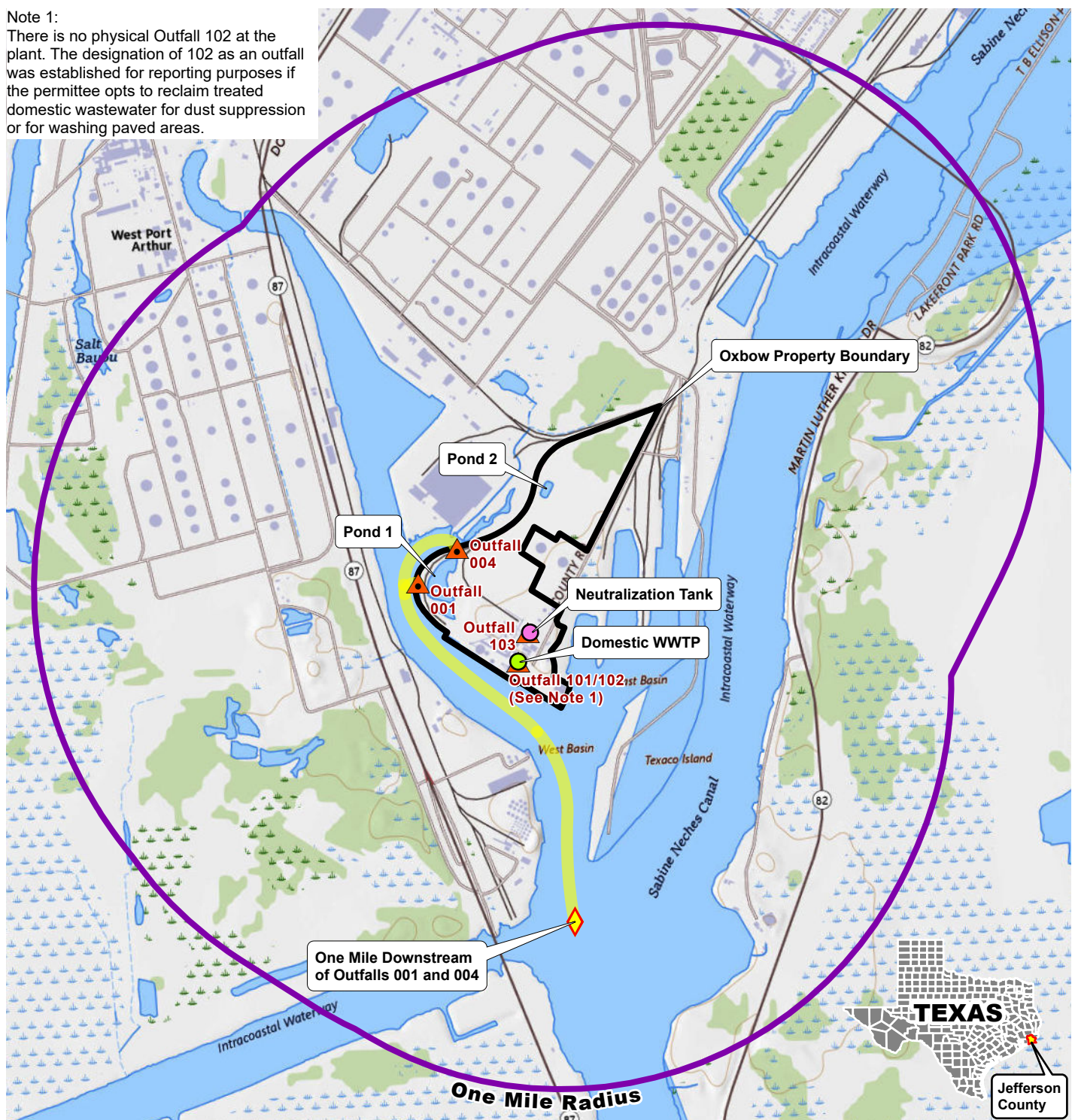
☐ **Common Setting:** not offensive, developed but uncluttered; water may be colored or turbid

☐ **Offensive:** stream does not enhance aesthetics; cluttered; highly developed; dumping areas; water discolored

SPIF

Note 1:

There is no physical Outfall 102 at the plant. The designation of 102 as an outfall was established for reporting purposes if the permittee opts to reclaim treated domestic wastewater for dust suppression or for washing paved areas.



Legend

- Oxbow Calcining LLC Property Boundary
- One Mile Radius
- Domestic Wastewater Treatment Plant
- Neutralization Tank

- Outfall Location
- Discharge Route
- Downstream Marker

N



0 1,000 2,000
FEET
1" = 2,000 FEET
1:24,000



OXBOW CALCINING LLC
3901 COKE DOCK ROAD
PORT ARTHUR, TEXAS

SPIF MAP

DRAWN BY:	L WILSON
APPROVED BY:	M FARRULLA
PROJECT NO:	TPDES 2025
FILE NO.	SPIF Map
DATE:	AUGUST 2025

ATTACHMENT A-1

Your transaction is complete. Thank you for using TCEQ ePay.

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt and the vouchers for your records. An email receipt has also been sent.

Transaction Information

Trace Number: 582EA000690748
Date: 10/22/2025 09:35 AM
Payment Method: CC - Authorization 0000058495
ePay Actor: DARLA SMITH
Actor Email: darla.smith@oxbow.com
IP: 12.97.48.178
TCEQ Amount: \$350.00
Texas.gov Fee: \$8.13
Texas.gov Price: \$358.13*

* This service is provided by Texas.gov, the official website of Texas. The price of this service includes funds that support the ongoing operations and enhancements of Texas.gov, which is provided by a third party in partnership with the State.

Payment Contact Information

Name: DARLA SMITH
Company: OXBOW CALCINING LLC
Address: 1601 FORUM PLACE 1400, WEST PALM BEACH, FL 33401
Phone: 409-332-6271

Cart Items

Click on the voucher number to see the voucher details.

Voucher	Fee Description	AR Number	Amount
789431	WW PERMIT - MINOR FACILITY NOT SUBJECT TO 40 CFR 400-471 - MAJOR AMENDMENT		\$300.00
789432	30 TAC 305.53B WQ NOTIFICATION FEE		\$50.00
TCEQ Amount:			\$350.00

[ePay Again](#) [Exit ePay](#)

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt for your records.

From: steers@tceq.texas.gov
To: [Darlio Smith](#)
Subject: TCEQ ePay Receipt for 582EA000690748
Date: Wednesday, October 22, 2025 9:35:21 AM

[external email-use caution]

This is an automated message from the TCEQ ePay system. Please do not reply.

Trace Number: 582EA000690748
Date: 10/22/2025 09:35 AM
Payment Method: CC - Authorization 0000058495
TCEQ Amount: \$350.00
Texas.gov Fee: \$8.13
Texas.gov Price: \$358.13*

* This service is provided by Texas.gov, the official website of Texas. The price of this service includes funds that support the ongoing operations and enhancements of Texas.gov, which is provided by a third party in partnership with the State.

Actor: DARLA SMITH
Email: darla.smith@oxbow.com

Payment Contact: DARLA SMITH
Phone: 409-332-6271
Company: OXBOW CALCINING LLC
Address: 1601 FORUM PLACE 1400, WEST PALM BEACH, FL 33401

Fees Paid:
Fee Description AR Number Amount
WW PERMIT - MINOR FACILITY NOT SUBJECT TO 40 CFR 400-471 - MAJOR AMENDMENT \$300.00
30 TAC 305.53B WQ NOTIFICATION FEE \$50.00

TCEQ Amount: \$350.00

=====

Voucher: 789431
Trace Number: 582EA000690748
Date: 10/22/2025 09:35 AM
Payment Method: CC - Authorization 0000058495
Voucher Amount: \$300.00
Fee Paid: WW PERMIT - MINOR FACILITY NOT SUBJECT TO 40 CFR 400-471 - MAJOR AMENDMENT
RN Number: RN100209287
Site Name: OXBOW CALCINING LLC
Site Location: PORT ARTHUR TX
CN Number: CN602552424
Customer Name: OXBOW CALCINING LLC
Customer Address: 3901 COKE DOCK ROAD, PORT ARTHUR, TX 77640
Program Area ID: 0001994000

Voucher: 789432
Trace Number: 582EA000690748
Date: 10/22/2025 09:35 AM
Payment Method: CC - Authorization 0000058495
Voucher Amount: \$50.00
Fee Paid: 30 TAC 305.53B WQ NOTIFICATION FEE

=====

To print out a copy of the receipt and vouchers for this transaction
either click on or copy and paste the following url into your browser:
[https://urldefense.com/v3/https://www3.tceq.texas.gov/epay/index.cfm?fuseaction=cor.search&trace_num_txt=582EA000690748_!!LdeuFXJpFg!DHCwgvRAjV7ppcxjX7sN3F7U4Afm3SK76pblygnW1BrafHQvFRF5rI_r_biHPpqlEi6o9FzhtMzOB7vsF9Aloyo8\\$](https://urldefense.com/v3/https://www3.tceq.texas.gov/epay/index.cfm?fuseaction=cor.search&trace_num_txt=582EA000690748_!!LdeuFXJpFg!DHCwgvRAjV7ppcxjX7sN3F7U4Afm3SK76pblygnW1BrafHQvFRF5rI_r_biHPpqlEi6o9FzhtMzOB7vsF9Aloyo8$)

This e-mail transmission and any attachments are believed to have been sent free of any virus or other defect that might affect any computer system into which it is received and opened. It is, however, the recipient's responsibility to ensure that the e-mail transmission and any attachments are virus free, and the sender accepts no responsibility for any damage that may in any way arise from their use.

Attention: This email was sent from outside the company. Please use caution when opening attachments or clicking on links that are unexpected or arrive from unknown senders.

ATTACHMENT A-2



TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (If other is checked please describe in space provided.)		
☐ New Permit, Registration or Authorization (Core Data Form should be submitted with the program application.)		
☐ Renewal (Core Data Form should be submitted with the renewal form)	☒ Other Major Permit Amendment	
2. Customer Reference Number (if issued)	Follow this link to search for CN or RN numbers in Central Registry**	3. Regulated Entity Reference Number (if issued)
CN 602552424		RN 100209287

SECTION II: Customer Information

4. General Customer Information		5. Effective Date for Customer Information Updates (mm/dd/yyyy)						
☐ New Customer ☒ Update to Customer Information ☐ Change in Regulated Entity Ownership								
☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)								
<i>The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).</i>								
6. Customer Legal Name (If an individual, print last name first: eg: Doe, John)			<i>If new Customer, enter previous Customer below:</i>					
Oxbow Calcining LLC								
7. TX SOS/CPA Filing Number	8. TX State Tax ID (11 digits)	9. Federal Tax ID (9 digits)	10. DUNS Number (if applicable)					
0800236436	11336370439	133637043	NA					
11. Type of Customer:	☒ Corporation	☐ Individual	Partnership: ☐ General ☐ Limited					
Government: ☐ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other	☐ Sole Proprietorship		☐ Other:					
12. Number of Employees		13. Independently Owned and Operated?						
☐ 0-20 ☐ 21-100 ☒ 101-250 ☐ 251-500 ☐ 501 and higher		☒ Yes ☐ No						
14. Customer Role (Proposed or Actual) – as it relates to the Regulated Entity listed on this form. Please check one of the following								
☐ Owner ☐ Operator ☒ Owner & Operator ☐ Other:								
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant								
15. Mailing Address:	PO Box C							
	City	Port Arthur	State	TX	ZIP	77641	ZIP + 4	
16. Country Mailing Information (if outside USA)					17. E-Mail Address (if applicable)			

18. Telephone Number	19. Extension or Code	20. Fax Number (if applicable)
(409) 983-8406		() -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information (If 'New Regulated Entity' is selected, a new permit application is also required.)								
☐ New Regulated Entity ☐ Update to Regulated Entity Name ☒ Update to Regulated Entity Information								
<i>The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).</i>								
22. Regulated Entity Name (Enter name of the site where the regulated action is taking place.)								
Oxbow Calcining LLC								
23. Street Address of the Regulated Entity: (No PO Boxes)	3901 Coke Dock Rd							
	City	Port Arthur	State	TX	ZIP	77640	ZIP + 4	
24. County	Jefferson							

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:								
26. Nearest City						State	Nearest ZIP Code	
Port Arthur						TX	77640	
<i>Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).</i>								
27. Latitude (N) In Decimal:		29.835247			28. Longitude (W) In Decimal:		-93.963585	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds			
29	50	6.89	93	57	48.91			
29. Primary SIC Code (4 digits)	30. Secondary SIC Code (4 digits)		31. Primary NAICS Code (5 or 6 digits)			32. Secondary NAICS Code (5 or 6 digits)		
2999	4911		324199			221118		
33. What is the Primary Business of this entity? (Do not repeat the SIC or NAICS description.)								
Calcining of petroleum coke								
34. Mailing Address:	PO Box C							
	City	Port Arthur	State	TX	ZIP	77641	ZIP + 4	
35. E-Mail Address:								
36. Telephone Number	37. Extension or Code		38. Fax Number (if applicable)					
(409) 983-8406			() -					

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

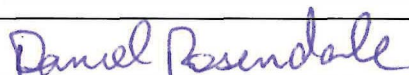
☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☐ Emissions Inventory Air	☒ Industrial Hazardous Waste
				30128
☐ Municipal Solid Waste	☒ New Source Review Air	☐ OSSF	☒ Petroleum Storage Tank	☐ PWS
	45622		72418	
☐ Sludge	☐ Storm Water	☒ Title V Air	☐ Tires	☐ Used Oil
		01493		
☐ Voluntary Cleanup	☒ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:
	WQ0001994000			

SECTION IV: Preparer Information

40. Name:	Mario E. Farrulla	41. Title:	Manager, Env. & Regulatory Matter
42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(561) 907-5558		() -	mario.farrulla@oxbow.com

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	Oxbow Calcining LLC	Job Title:	Vice President, Calciner Operations
Name (In Print):	Daniel Rosendale	Phone:	(281) 907- 9446
Signature:		Date:	10/22/25

ATTACHMENT A-3



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

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

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

Applicants should use this template to develop a plain language summary of your facility and application as required by Title 30, Texas Administrative Code (30 TAC), Chapter 39, Subchapter H. You may modify the template as necessary to accurately describe your 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 you 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. After filling in the information for your facility delete these instructions.

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

ENGLISH TEMPLATE FOR TPDES or TLAP NEW/RENEWAL/AMENDMENT APPLICATIONS INDUSTRIAL WASTEWATER/STORMWATER

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

Oxbow Calcining LLC (CN602552424) operates Oxbow Calcining LLC Port Arthur Facility (RN100209287), a petroleum coke calcining facility. The facility is located at 3901 Coke Dock Road, in Port Arthur, Jefferson County, Texas 77640. Oxbow is proposing an amendment to its current TPDES Permit (WQ0001994000) and add a new outfall and modify the permitted discharge through Outfall 001 for the intermittent and flow-variable discharge of treated wastewater from two waste heat recovery (WHR) boiler units and associated waste discharge from the boiler feed water demineralizer treatment unit. Operation of the proposed WHR units is an integral part of Oxbow Clean Energy's (OCE) project consisting of the voluntary installation of air pollution control equipment on Kilns 3 and 5. Other than the installation of the emission control equipment, no changes to the current calcining process are proposed.

Discharges from the facility are expected to contain carbonaceous biochemical oxygen demand, ammonia nitrogen, dissolved oxygen, free available chlorine, total suspended solids,

oil and grease, copper, and nickel. The proposed waste streams, including blowdown wastewater from the WHR boilers and demineralized regeneration effluent from the boiler feed water treatment system will be treated by neutralization. Once treated, the effluent from the neutralization tank will be sent via the new proposed Internal Outfall 103 to the Primary Settling Reservoir for reuse on the FGD system, non-contact process cooling water for the kilns, dust suppression (rainbirds and water truck), and/or washdown of paved areas. When the treated stream is not reused, the treated effluent will be discharged to the West Turning Basin through proposed Outfall 004 (i.e., same discharge location under former TPDES permit No. WQ0004725000). Occasional routing of commingled streams from the Primary Settling Reservoir to Outfall 001 would include previously monitored streams from internal outfall 103 if the commingled streams are not entirely reused.

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

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

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

Oxbow Calcining LLC (CN602552424) opera la planta Oxbow Calcining LLC en Port Arthur RN100209287, una calcinadora de coque de petróleo. La instalación está ubicada en 3901 Coke Dock Road, en Port Arthur, Condado de Jefferson, Texas 77640. Oxbow propone una modificación a su actual Permiso TPDES (WQ0001994000) para modificar el Emisario 001 e incluir un nuevo emisario para la descarga intermitente y de caudal variable de aguas residuales tratadas de dos calderas de recuperación de calor residual (WHR) y la descarga asociada de residuos de la unidad de tratamiento desmineralizadora para las aguas de alimentación de la caldera. Aparte de la instalación de los equipos de control de emisiones, no se proponen cambios en el proceso de calcinación actual.

Se espera que las descargas de la instalación contengan demanda bioquímica de oxígeno, nitrógeno amoniacal, oxígeno disuelto, cloro libre disponible, sólidos suspendidos, aceite y grasa, cobre, y níquel. Los flujos de desechos propuestos, que incluyen las aguas residuales de purga de las calderas WHR y las aguas residuales de regeneración desmineralizadas del sistema de tratamiento de agua de alimentación de la caldera. **estará** tratado por neutralización. Una vez tratado, el efluente del tanque de neutralización se enviará por el nuevo propuesto Emisario Interno 103 al Depósito de Decantación Primaria para su reutilización en el sistema de destilación de gases de combustión (FGD), agua de enfriamiento de proceso sin contacto para los hornos, supresión de polvo (bombas Rainbird y camiones cisterna) y/o lavado de áreas pavimentadas. Cuando el efluente tratado no se reutilice, este se descargará al West Turning Basin a través del Emisario 004 propuesto (este es el mismo punto de descarga operado bajo el permiso TPDES Núm. WQ0004725000). La mezcla ocasional de efluentes tratados del Depósito de Decantación Primaria hasta el Emisario 001 incluiría efluentes previamente monitoreados del Emisario Interno 103 si estos no son reutilizados en su totalidad.

ATTACHMENT A-4



Texas Commission on Environmental Quality

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.

As presented above, the proposed amendment does not meet the required criteria for requiring a Public Involvement Plan as only one of the three boxes was checked.

Section 3. Application Information

Type of Application (check all that apply):

Air ☐ Initial ☐ Federal ☐ Amendment ☐ Standard Permit ☐ Title V
Waste ☐ Municipal Solid Waste ☐ Industrial and Hazardous Waste ☐ Scrap Tire
☐ Radioactive Material Licensing ☐ Underground Injection Control

Water Quality

☐ Texas Pollutant Discharge Elimination System (TPDES)
☐ Texas Land Application Permit (TLAP)
☐ 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
☐ 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

(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?

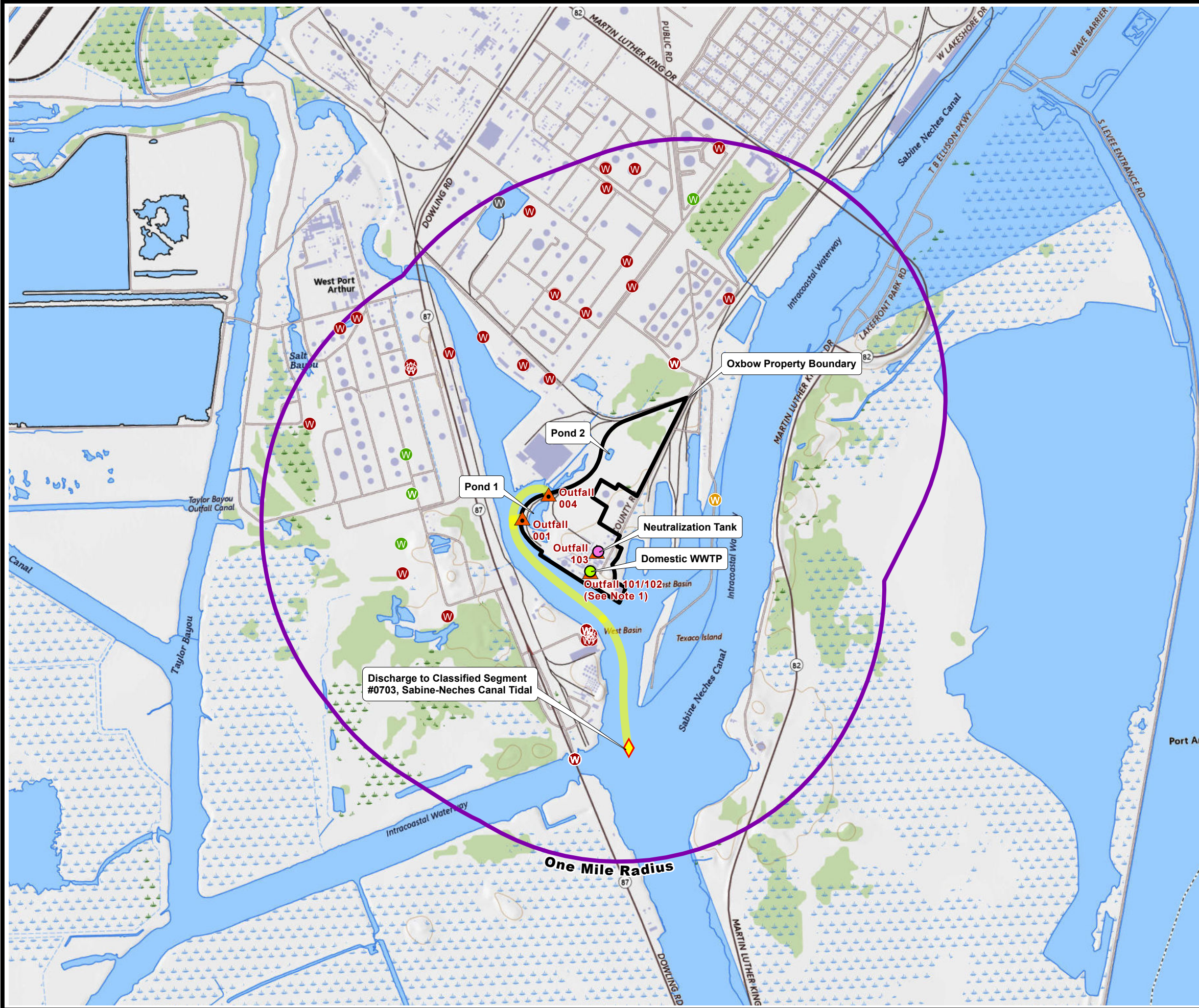
☐ Yes ☐ No

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)

ATTACHMENT A-6

C:_AD\ACCDocs\isitemap\c\Project Files\Oxbow Calcining\TPDES 2025\Oxbow GIS.aprx



LEGEND

- Oxbow Calcining LLC Property Boundary
- One Mile Radius
- Domestic Wastewater Treatment Plant
- Neutralization Tank
- Outfall Location
- Discharge Route
- Downstream Marker

TWDB Wells

- Environmental Soil Boring
- Monitor
- Test Well
- Plugged or Destroyed

Note 1:
There is no physical Outfall 102 at the plant. The designation of 102 as an outfall was established for reporting purposes if the permittee opts to reclaim treated domestic wastewater for dust suppression or for washing paved areas.

Sources:
1. USGS Topographic Quadrangles 7.5 Minute Series: Port Arthur North, TX 2022; Port Arthur South, TX 2022
2. TWDB Wells: Texas Water Development Board GIS Data, June 2025



0 1,000 2,000 FEET
1" = 2,000 FEET
1:24,000

OXBOW CALCINING LLC
3901 COKE DOCK ROAD
PORT ARTHUR, TEXAS

USGS MAP

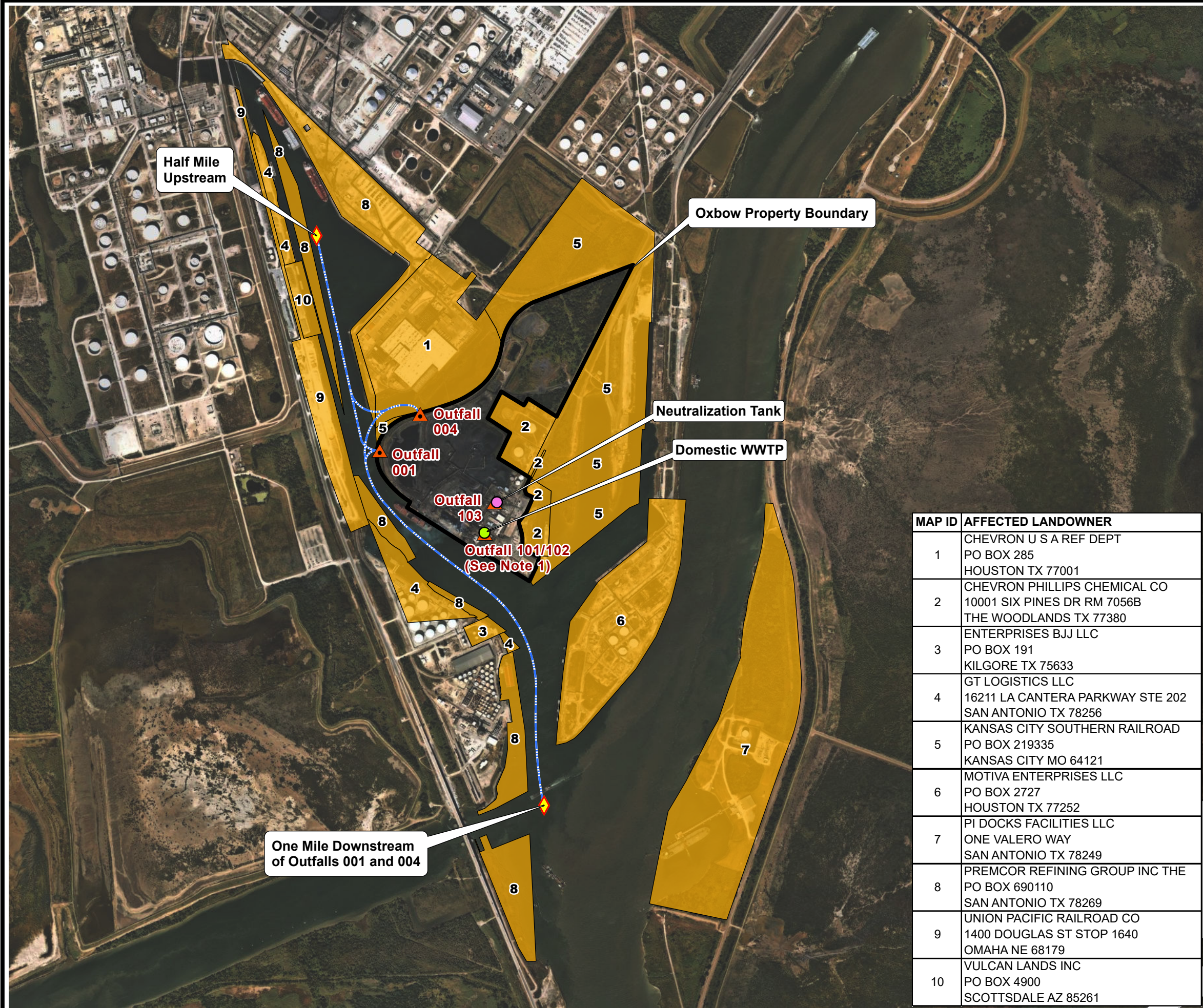
DRAWN BY:	L WILSON	SCALE:	AS NOTED	PROJ. NO.	TPDES 2025
CHECKED BY:	M FARRULLA				USGS Map
APPROVED BY:	M FARRULLA	DATE PRINTED:	8/18/2025		
DATE:	August 2025				



3901 Coke Dock Rd
Port Arthur, TX 77640
Ph: 409-985-2578

ATTACHMENT A-7

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LEGEND

- Oxbow Calcining LLC Property Boundary (Leased from Kansas City Southern Railroad)
- Affected Landowners
- Domestic Wastewater Treatment Plant
- Neutralization Tank
- Outfall Location
- Discharge Route
- Downstream Marker

Note 1:
There is no physical Outfall 102 at the plant. The designation of 102 as an outfall was established for reporting purposes if the permittee opts to reclaim treated domestic wastewater for dust suppression or for washing paved areas.

MAP ID	AFFECTED LANDOWNER
1	CHEVRON U S A REF DEPT PO BOX 285 HOUSTON TX 77001
2	CHEVRON PHILLIPS CHEMICAL CO 10001 SIX PINES DR RM 7056B THE WOODLANDS TX 77380
3	ENTERPRISES BJJ LLC PO BOX 191 KILGORE TX 75633
4	GT LOGISTICS LLC 16211 LA CANTERA PARKWAY STE 202 SAN ANTONIO TX 78256
5	KANSAS CITY SOUTHERN RAILROAD PO BOX 219335 KANSAS CITY MO 64121
6	MOTIVA ENTERPRISES LLC PO BOX 2727 HOUSTON TX 77252
7	PI DOCKS FACILITIES LLC ONE VALERO WAY SAN ANTONIO TX 78249
8	PREMCOR REFINING GROUP INC THE PO BOX 690110 SAN ANTONIO TX 78269
9	UNION PACIFIC RAILROAD CO 1400 DOUGLAS ST STOP 1640 OMAHA NE 68179
10	VULCAN LANDS INC PO BOX 4900 SCOTTSDALE AZ 85261



Affected Landowner Source:
Jefferson County Appraisal District GIS Parcel Data,
August 2025

0 650 1,300
FEET
1" = 1,300 FEET
1:15,600

OXBOW CALCINING LLC
3901 COKE DOCK ROAD
PORT ARTHUR, TEXAS

AFFECTED LANDOWNER MAP

DRAWN BY: L WILSON	SCALE: AS NOTED	PROJ. NO. TPDES 2025
CHECKED BY: M FARRULLA		Affected Landowner
APPROVED BY: M FARRULLA	DATE PRINTED: 8/19/2025	
DATE: August 2025		



3901 Coke Dock Rd
Port Arthur, TX 77640
Ph: 409-985-2578

ATTACHMENT A-8

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OXBOX CALCINING LLC
3901 COKE DOCK ROAD
PORT ARTHUR, TEXAS

LOCATION OF OUTFALL PHOTOGRAPHS

DRAWN BY: L WILSON	SCALE: AS NOTED	PROJ. NO. TPDES 2025
CHECKED BY: M FARRULLA	DATE PRINTED: 8/18/2025	Facility Map
APPROVED BY: M FARRULLA	DATE: August 2025	



3901 Coke Dock Rd
Port Arthur, TX 77640
Ph: 409-985-2578



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OXBOW CALCINING LLC 3901 COKE DOCK ROAD PORT ARTHUR, TEXAS		
AERIAL VIEW OF OUTFALL 004 PHOTO A		
DRAWN BY:	SCALE:	PROJ. NO. TPDES 2025
CHECKED BY:		
APPROVED BY:		
DATE:		
 Oxbow 3901 Coke Dock Rd Port Arthur, TX 77640 Ph: 409-985-2578		



OXBOW CALCINING LLC
3901 COKE DOCK ROAD
PORT ARTHUR, TEXAS

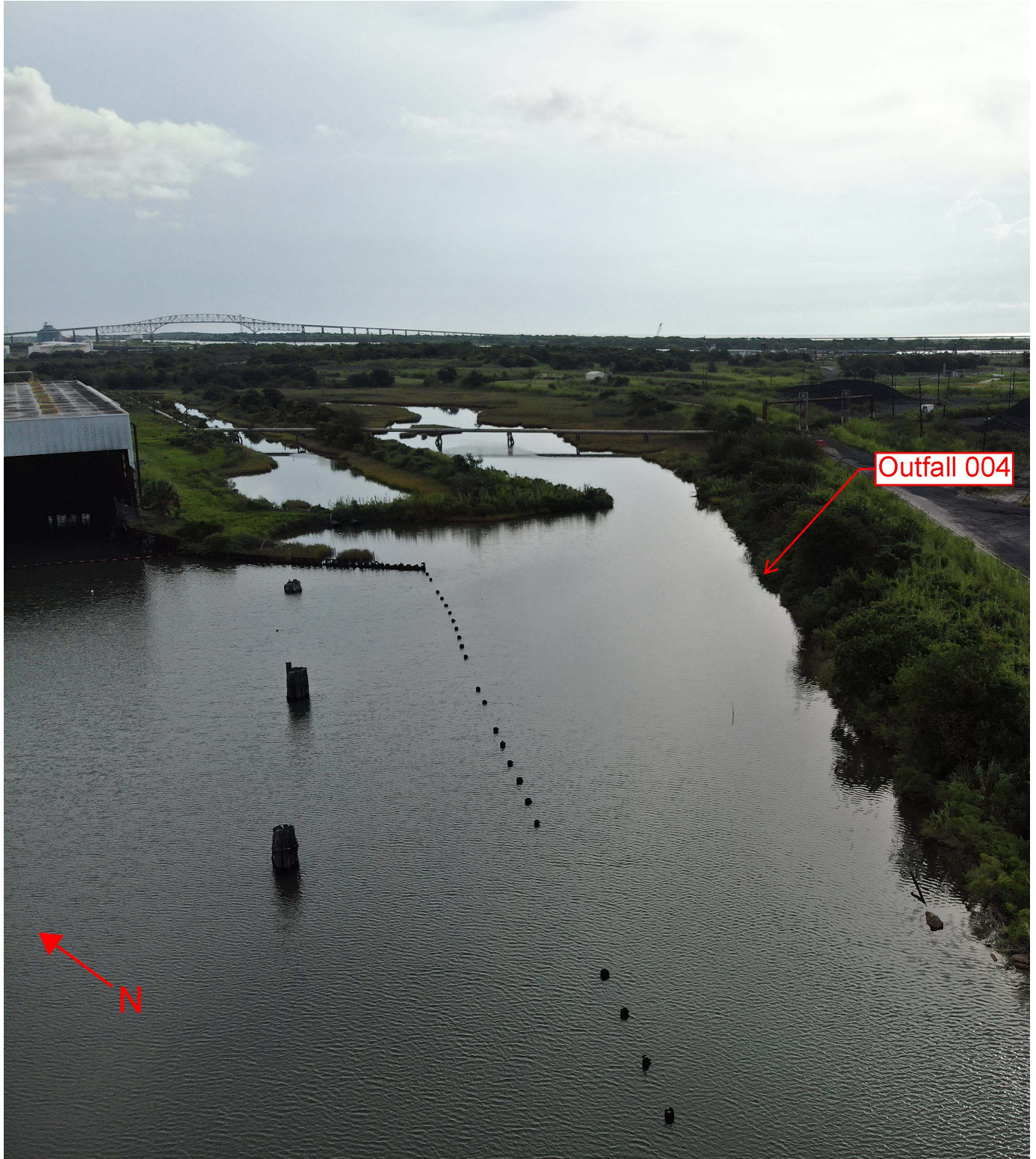
DOWNSTREAM VIEW OF OUTFALL 004
PHOTO B

DRAWN BY:

APPROVED BY:

PROJECT NO:

DATE:



Outfall 004

N



OXBOW CALCINING LLC
3901 COKE DOCK ROAD
PORT ARTHUR, TEXAS

UPSTREAM VIEW OF OUTFALL 004
PHOTO C

DRAWN BY:

APPROVED BY:

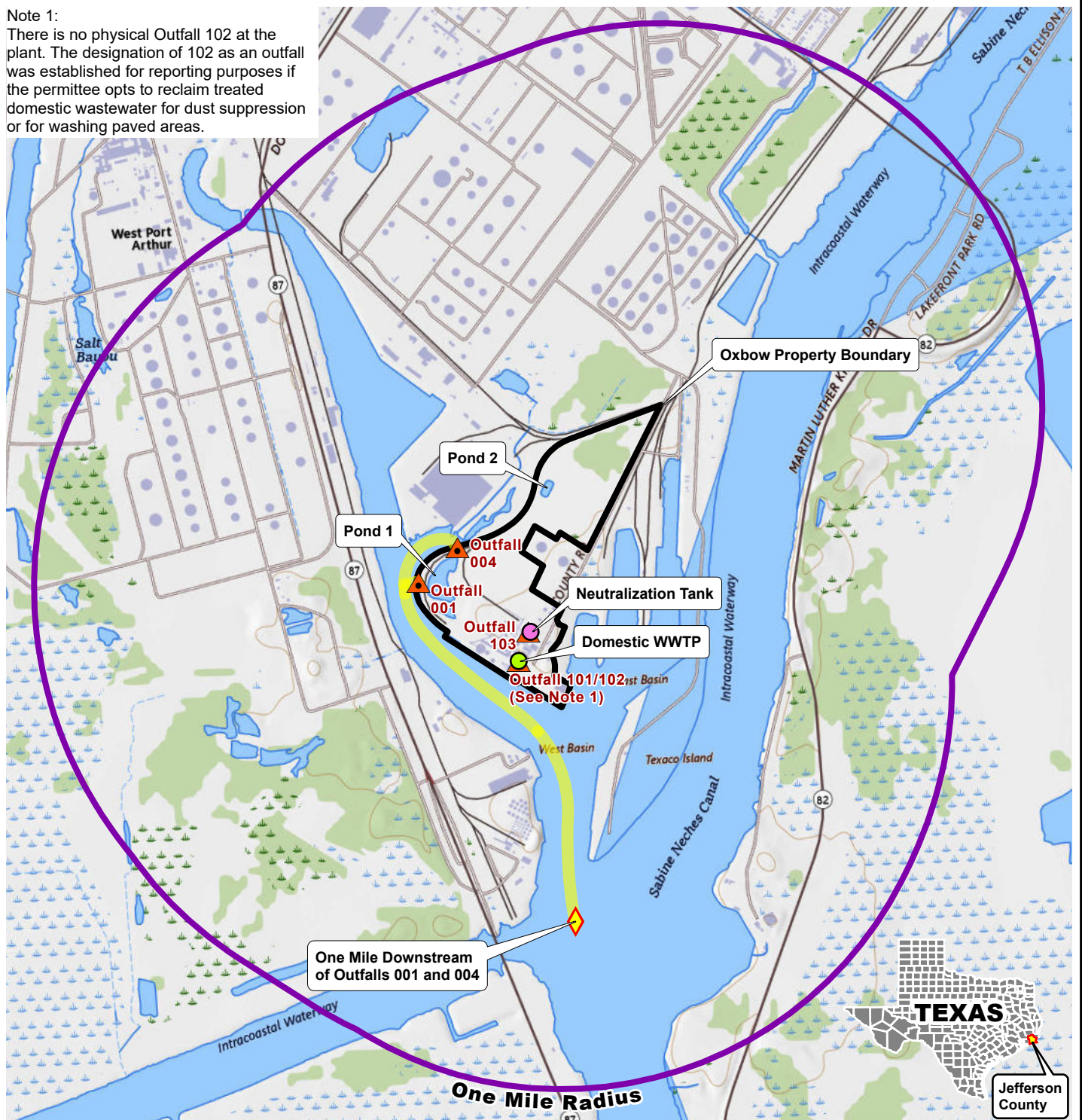
PROJECT NO:

DATE:

ATTACHMENT T-1

Note 1:

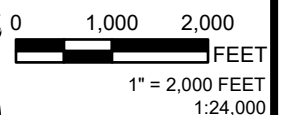
There is no physical Outfall 102 at the plant. The designation of 102 as an outfall was established for reporting purposes if the permittee opts to reclaim treated domestic wastewater for dust suppression or for washing paved areas.



Legend

- Oxbow Calcining LLC Property Boundary
- One Mile Radius
- Domestic Wastewater Treatment Plant
- Neutralization Tank

- ▲ Outfall Location
- Discharge Route
- ◆ Downstream Marker

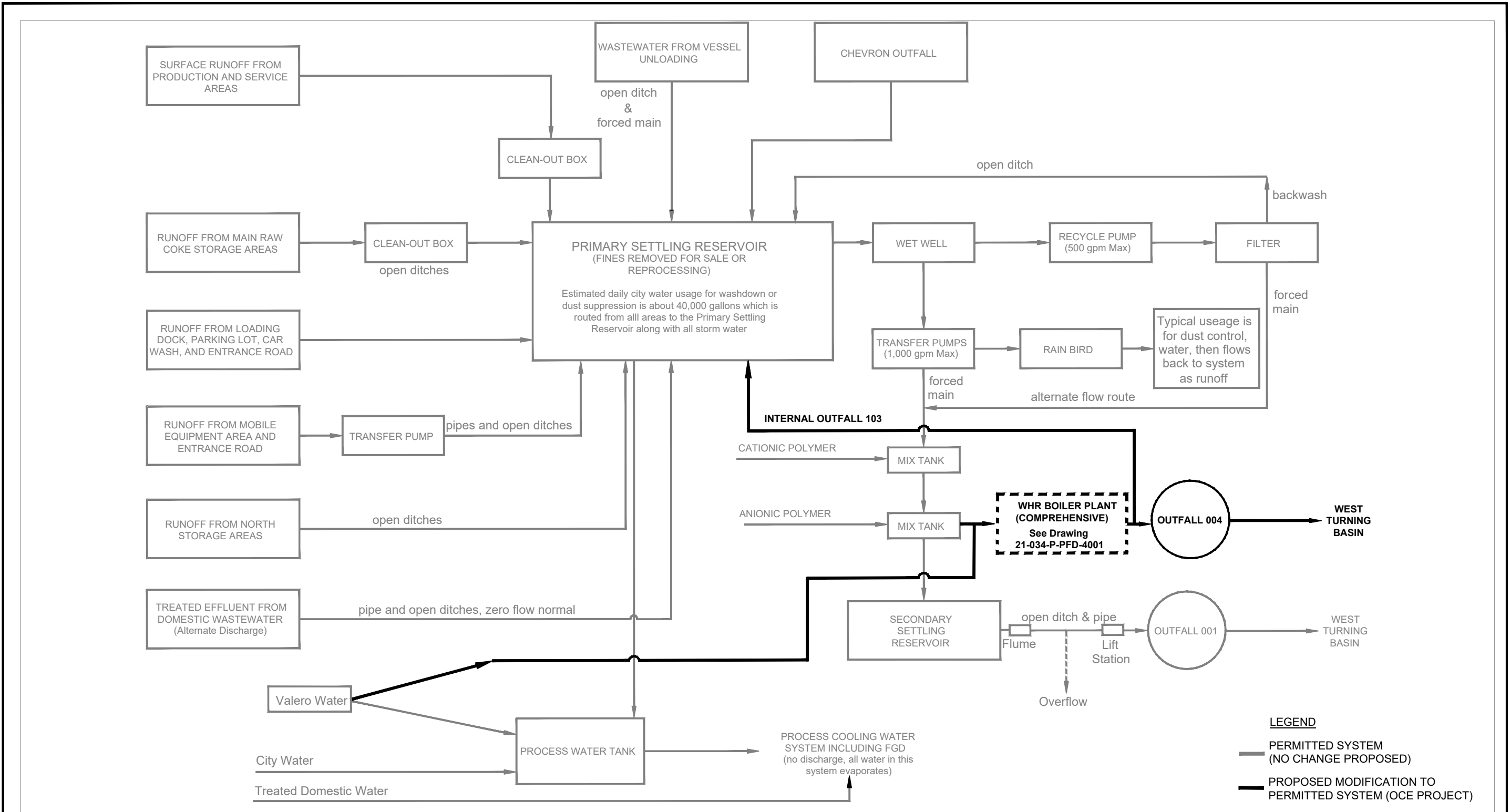


OXBOW CALCINING LLC
3901 COKE DOCK ROAD
PORT ARTHUR, TEXAS

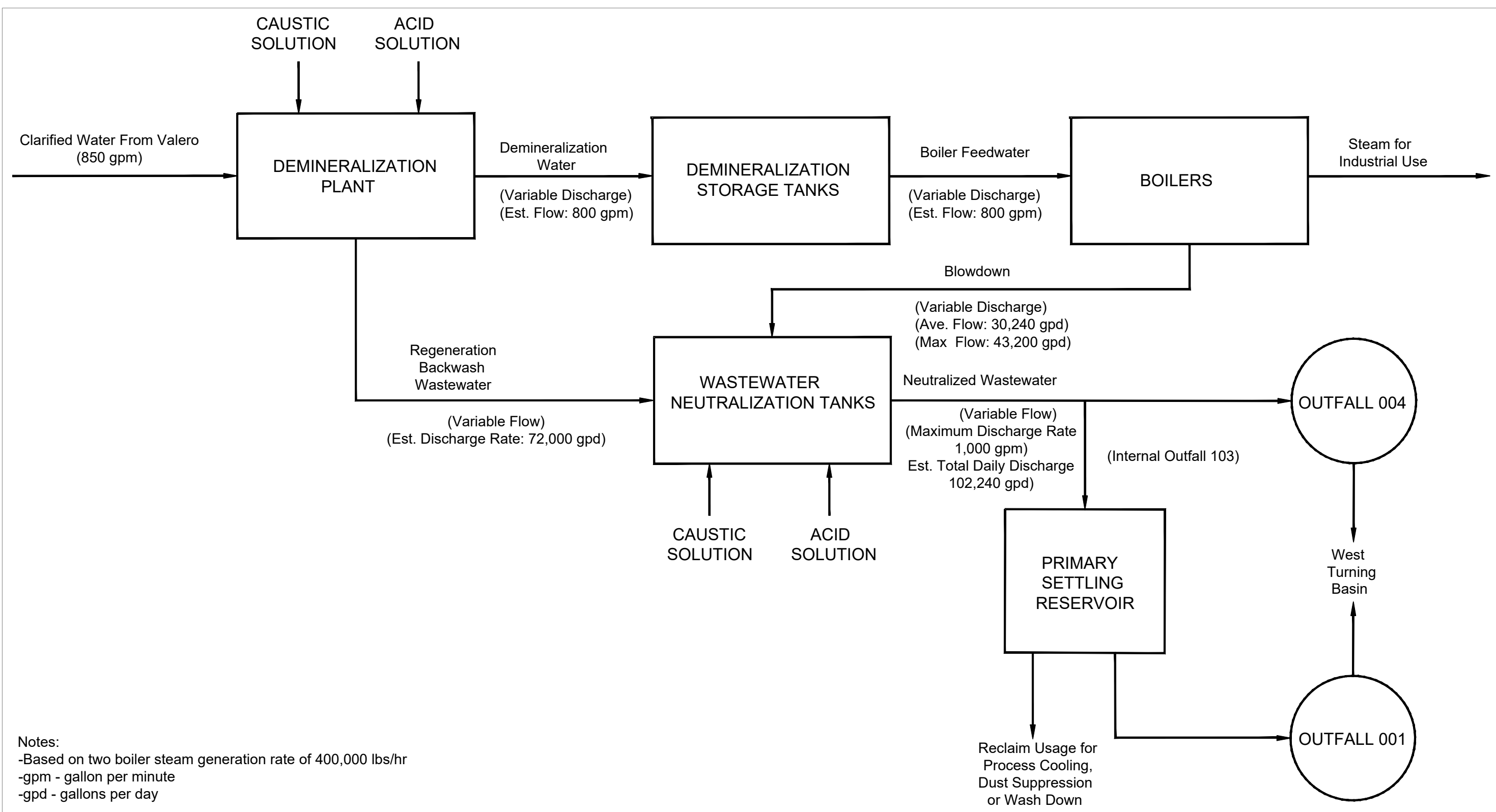
FACILITY MAP

DRAWN BY:	L WILSON
APPROVED BY:	M FARRULLA
PROJECT NO:	TPDES 2025
FILE NO.	SPIF Map
DATE:	AUGUST 2025

ATTACHMENT T-2



										This drawing is the exclusive property of Oxbow and is confidential, must not be made public or copied without the written permission of Oxbow and is subject to return on demand. All rights of design are reserved.																								
													PREPARED BY 			FIGURE 3 WATER AND WASTEWATER FLOW DIAGRAM																		
													DRAWN BY JL			DATE 07/16/2025			OXBOW CALCINING LLC PORT ARTHUR - TEXAS															
													CHK'D BY TC			DATE 07/16/2025																		
													APPV'D BY			DATE																		
													CLIENT APP			DATE																		
DRAWING NUMBER		TITLE/DESCRIPTION		GENERAL NOTES				REV	DATE	DESCRIPTION		DRWN	CHK'D	APP'D	OXBOW A.F.E. NO.		PERMIT		ENGINEERING		EPCM PROJ#		DRAWING SCALE		PLANT DRAWING NUMBER		DRAWING NUMBER		REV					
REFERENCE DRAWINGS				(UNLESS OTHERWISE SPECIFIED)				DRAWING REVISIONS									PROFESSIONAL STAMPS									EPCM DRWG#						21-034-P-PDF-4000A		



Notes:
-Based on two boiler steam generation rate of 400,000 lbs/hr
-gpm - gallon per minute
-gpd - gallons per day

										This drawing is the exclusive property of Oxbow and is confidential, must not be made public or copied without the written permission of Oxbow and is subject to return on demand. All rights of design are reserved.									
														BOILER PLANT (COMPREHENSIVE)					
													DRAWN BY	JL	DATE	08/26/2025	OXBOW CALCINING LLC PORT ARTHUR - TEXAS		
													CHK'D BY	TC	DATE	08/26/2025			
													APPV'D BY		DATE				
													CLIENT APP		DATE				
DRAWING NUMBER	TITLE/DESCRIPTION		GENERAL NOTES	REV	DATE	DESCRIPTION	DRWN	CHK'D	APP'D			OXBOW A.F.E. NO.	PERMIT	ENGINEERING	EPCM PROJ#	DRAWING SCALE	PLANT DRAWING NUMBER	DRAWING NUMBER	REV
REFERENCE DRAWINGS		(UNLESS OTHERWISE SPECIFIED)	DRAWING REVISIONS							PROFESSIONAL STAMPS		EPCM DRWG#			21-034-P-PDF-4001A				

ATTACHMENT T-3

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ATTACHMENT T-4

ATTACHMENT T-4

OFF-SITE / THIRD PARTY WASTE

Stormwater discharged from the adjacent tank farm located on Chevron Phillips Chemical Company LP property (TPDES Permit WQ0004327000) flows onto the Oxbow Calcining LLC (Oxbow) facility. The tank farm consists of aboveground storage tanks (ASTs) all located within secondary containment. As seen in Attachment G – Facility Map, Oxbow's Port Arthur's operations surround the tank farm to north, west, and south. The stormwater from the tank farm is diverted to the Primary Settling Reservoir and managed with the Oxbow stormwater runoff for reuse on the FGD system, non-contact process cooling water for the kilns, dust suppression (rainbirds and water truck), and/or washdown of paved areas.

ATTACHEMENT T-5

ATTACHMENT T-5

Proposed Amendment to TPDES Permit No. WQ0001994000

Oxbow Calcining LLC proposed permit amendment covers the addition of Oxbow Clean Energy (OCE), which includes the intermittent and flow-variable discharge of treated wastewater from two waste heat recovery (WHR) boiler units and the treated effluent from the boiler feed water treatment system. Operation of the proposed WHR units is an integral part of OCE project consisting of the voluntary installation of air pollution control equipment on existing Kilns 3 and 5 (Selective Non-Catalytic Reduction [SNCR] and Flue-Gas Desulfurization [FGD]). Oxbow anticipates no liquid effluent discharges will be generated because of the operation of the SNCR and FGD units.

This amendment will add a new outfall, designated in this application as Outfall 004, and modification to the treated wastewater discharged through permitted Outfall 001 (TPDES Permit No. WQ0001994000).

The Oxbow facility (Site) processes green petroleum coke in rotary kilns to produce calcined petroleum coke. The Site (SIC 2999) operates under TPDES Permit No. WQ0001994000 (Issued Date: December 21, 2023) which authorizes the treatment and discharge of waste through one external outfall (Outfall 001: treated industrial wastewater and treated domestic wastewater) and two internal outfalls (Outfall 101: treated domestic wastewater and Outfall 102: reclaimed treated domestic wastewater).

The proposed WHR boilers will have wastewater production and discharge characteristics similar to the waste streams authorized for discharge to the same receiving water under TPDES permit No. WQ0004725000 (Current Status: Cancelled, Expiration Date: 10/23/2023).

As part of the generation of carbon-free energy, the two new WHR boilers will be installed downstream of the exhaust systems for Kilns 3 and 5. Fresh water is planned to be supplied by the Valero Energy Corporation or a similar source.

Liquid waste streams generated from the proposed WHR boilers include: (1) demineralized regeneration effluent from the boiler feed water treatment system and (2) treated wastewater blowdown from the WHR boilers.

Treatment for the boiler feed water consists of the use (on a rotating basis) of one of three demineralizer primary train systems. After extended use, the resin beads become spent and clogged with trapped ions. A conductivity meter installed at the outlet of the demineralizer indicates when resin regeneration is required. Spent resin is regenerated by backwashing with solutions of sulfuric acid for the cation resin and caustic soda for the anion vessel. The regenerating solutions will flow from the adjacent acid/caustic vessel through the appropriate ion-exchange resin beads, and then into a wastewater accumulation/neutralization tank.

Boiler blowdown from each of the WHR boilers and the demineralizer regeneration effluent, referenced above, will be routed to the wastewater accumulation/neutralization tank for pH adjustment by adding sulfuric acid and/or caustic soda solutions to the effluent.

The treated boiler blowdown and regeneration waste effluent will be sent via proposed Internal Outfall 103 to the Primary Settling Reservoir for reuse on the FGD system, non-contact process cooling water for the kilns, dust suppression (rainbirds and water truck), and/or washdown of paved areas. When the treated stream is not reused, the treated effluent will be discharged to the West Turning Basin through proposed Outfall 004 (i.e., same discharge location under former TPDES permit No. WQ0004725000). Occasional routing of commingled streams from the Primary Settling Reservoir to Outfall 001 would include previously monitored streams from internal outfall 103 if the commingled streams are not entirely reused.

Note that for clarification purposes and to avoid confusions with previously named permitted outfalls, Oxbow identified the new proposed outfalls as Outfall 004 (external outfall) and 103 (internal outfall).

Attachment T-2 includes the water and wastewater flow diagrams for the proposed OCE project.

ATTACHMENT T-6

ATTACHMENT T-6**Treatment Chemicals**

OUTFALL	PRODUCT NAME	Frequency	USAGE
001, 004 & 103	CORTROL OS7780	Daily	Boiler Feed Water
001, 004 & 103	OPTISPERSE HP54674	Daily	Boiler Feed Water
001, 004 & 103	Saturated Sodium Chloride Treated Brine	Sporadically	Wastewater Treatment
001, 004 & 103	Sodium Hydroxide	Daily	Wastewater Treatment
001, 004 & 103	STEAMATE NA2460	Daily	Boiler Feed Water
001, 004 & 103	Sulfuric acid	Daily	Wastewater Treatment



SAFETY DATA SHEET

CORTROL* OS7780

1. Identification

Product identifier CORTROL OS7780
Other means of identification None.
Recommended use Water based dissolved oxygen scavenger
Recommended restrictions None known.

Company/undertaking identification

Veolia WTS USA, Inc.
3600 Horizon Blvd.
Trevose, PA 19053
T 215 355 3300, F 215 953 5524

Emergency telephone

(800) 877 1940

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Serious eye damage/eye irritation Category 2A
Sensitization, skin Category 1
Germ cell mutagenicity Category 2
Carcinogenicity Category 2
OSHA defined hazards Not classified.

Label elements



Signal word Warning

Hazard statement May cause an allergic skin reaction. Causes serious eye irritation. Suspected of causing genetic defects. Suspected of causing cancer.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

Response If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Wash contaminated clothing before reuse.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Components	CAS #	Percent
Hydroquinone	123-31-9	2.5 - 10

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Dermatitis. Rash.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Minimise exposure to light.

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Hydroquinone (CAS 123-31-9)	PEL	2 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value
Hydroquinone (CAS 123-31-9)	TWA	1 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Hydroquinone (CAS 123-31-9)	Ceiling	2 mg/m3

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Provide eyewash station.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. In case of insufficient ventilation, use a breathing mask with filter type: P2

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Liquid

Physical state

Liquid.

Form

Not available.

Color

Colorless to brown

Odor

Slight

Odor threshold

Not available.

pH (concentrated product)

7.5 Neat

Melting point/freezing point

32 °F (0 °C)

Initial boiling point and boiling range

Not available.

Flash point

> 199 °F (> 93 °C) SETA(CC)

Evaporation rate

Slower than Ether

Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	18 mmHg
Vapor pressure temp.	70 °F (21 °C)
Vapor density	> 1
Relative density	1
Relative density temperature	70 °F (21 °C)
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	5 mPa.s
Viscosity temperature	70 °F (21 °C)
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
pH in aqueous solution	7.6 (5% Solution)
Pour point	37 °F (3 °C)
VOC	0 % ESTIMATED

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials. Store in a dry place.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause an allergic skin reaction. Dermatitis. Rash.
---	--

Information on toxicological effects

Acute toxicity

Product	Species	Test Results
CORTROL OS7780		
<u>Acute</u>		
Dermal		
LD50	Rabbit	> 5000 mg/kg (Calculated according to GHS additivity formula)

Product	Species	Test Results
Oral LD50	Rat	> 5000 mg/kg (Calculated according to GHS additivity formula)
Components	Species	Test Results
Hydroquinone (CAS 123-31-9)		
<u>Acute</u>		
Dermal LD50	Rabbit	> 2000 mg/kg
Oral LD50	Rat	302 mg/kg
Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory or skin sensitization		
ACGIH sensitization		
Hydroquinone (CAS 123-31-9)	Dermal sensitization	
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	May cause an allergic skin reaction.	
Germ cell mutagenicity	Suspected of causing genetic defects.	
Carcinogenicity	Suspected of causing cancer.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Hydroquinone (CAS 123-31-9)	3 Not classifiable as to carcinogenicity to humans.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)		
Not listed.		
US. National Toxicology Program (NTP) Report on Carcinogens		
Not listed.		
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Not likely, due to the form of the product.	
Chronic effects	Prolonged inhalation may be harmful.	

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
--------------------	--

Product		Species	Test Results
Aquatic			
Crustacea	LC50	Daphnia magna	8.7 mg/L, 48 hour
	NOEL	Daphnia magna	4.9 mg/L, 48 hour
Fish	LC50	Fathead Minnow	8.2 mg/L, 96 hour
		Rainbow Trout	6.3 mg/L, 96 hour
	NOEL	Fathead Minnow	3.1 mg/L, 96 hour
		Rainbow Trout	3.7 mg/L, 96 hour
Persistence and degradability		No data is available on the degradability of any ingredients in the mixture.	
		No data is available on the degradability of any ingredients in the mixture.	
- COD (mgO2/g)	52 (calculated data)		
- BOD 5 (mgO2/g)	27 (calculated data)		
- BOD 28 (mgO2/g)	27 (calculated data)		

- Closed Bottle Test (% Degradation in 28 days)	25 (calculated data)
- Zahn-Wellens Test (% Degradation in 28 days)	63 (calculated data)
- TOC (mg C/g)	16 (calculated data)

Bioaccumulative potential

Mobility in soil No data available.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (Hydroquinone), RQ(Hydroquinone, Sodium hydroxide)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
ERG number	171

IATA

UN number	UN3082
UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (Hydroquinone)
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	Yes
ERG Code	171
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

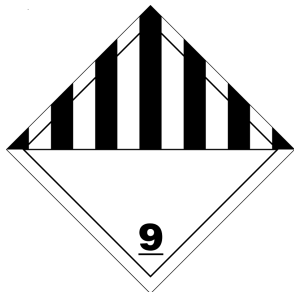
IMDG

UN number	UN3082
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (HYDROQUINONE), RQ(Hydroquinone, Sodium hydroxide), MARINE POLLUTANT
Transport hazard class(es)	
Class	9
Subsidiary risk	-
Packing group	III
Environmental hazards	
Marine pollutant	Yes
EmS	F-A, S-F
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

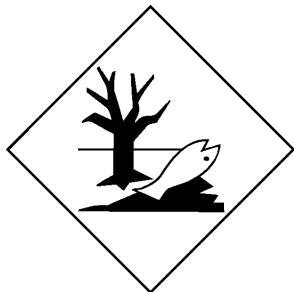
DOT



IATA; IMDG



Marine pollutant



General information IMDG Regulated Marine Pollutant. DOT Regulated Marine Pollutant.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA) All components of the mixture on the TSCA 8(b) inventory are designated "active".

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
Hydroquinone (CAS 123-31-9) Listed.

SARA 304 Emergency release notification
Hydroquinone (CAS 123-31-9) 100 LBS

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
Hydroquinone	123-31-9	100		500	10000
SARA 311/312 Hazardous chemical	Yes				
Classified hazard categories	Serious eye damage or eye irritation Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity				



SAFETY DATA SHEET

OPTISPERSE* HP54674

1. Identification

Product identifier	OPTISPERSE HP54674
Other means of identification	None.
Recommended use	Internal boiler treatment
Recommended restrictions	None known.

Company/undertaking identification

Veolia WTS USA, Inc.
3600 Horizon Blvd.
Trevose, PA 19053
T 215 355 3300, F 215 953 5524

Emergency telephone

(800) 877 1940

2. Hazard(s) identification

Physical hazards	Corrosive to metals	Category 1
Health hazards	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
OSHA defined hazards	Not classified.	

Label elements



Signal word Danger

Hazard statement May be corrosive to metals. Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation.

Precautionary statement

Prevention Keep only in original container. Do not breathe mist or vapor. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

Response IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse. Absorb spillage to prevent material-damage.

Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in corrosive resistant container with a resistant inner liner.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Components	CAS #	Percent
Polyphosphoric acids, sodium salts	68915-31-1	2.5 - 10
Sodium hydroxide	1310-73-2	2.5 - 10

Composition comments Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

4. First-aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General information If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

Fire fighting equipment/instructions In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers / tanks with water spray.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up Absorb spillage to prevent material damage. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

Never return spills to original containers for re-use.

Environmental precautions Avoid discharge into drains, water courses or onto the ground. Water contaminated with this product may be sent to a sanitary sewer treatment facility, or a permitted waste treatment facility, in accordance with any local agreements.

7. Handling and storage

Precautions for safe handling Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Use care in handling/storage.

**Conditions for safe storage,
including any incompatibilities**

Store locked up. Store in a cool, dry place out of direct sunlight. Keep only in the original container.
Store in accordance with local/regional/national/international regulation.

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	PEL	2 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles) and a face shield.
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Suitable gloves can be recommended by the glove supplier. Glove selection must take into account any solvents and other hazards present.
Other	Wear appropriate chemical resistant clothing.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A respiratory protection program that meets OSHA's 29 CFR 1910.34 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Liquid
Physical state	Liquid.
Form	Not available.
Color	Colorless to light yellow
Odor	Slight
Odor threshold	Not available.
pH (concentrated product)	> 13 Neat
Melting point/freezing point	25 °F (-4 °C)
Initial boiling point and boiling range	210 °F (99 °C)
Flash point	Not Applicable
Evaporation rate	Slower than Ether
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.

Vapor pressure	18 mmHg
Vapor pressure temp.	70 °F (21 °C)
Vapor density	< 1
Relative density	1.1
Relative density temperature	70 °F (21 °C)
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	3 mPa.s
Viscosity temperature	70 °F (21 °C)
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.
pH in aqueous solution	12.3 (5% Solution)
Pour point	30 °F (-1 °C)
VOC	0 % CALCULATED

10. Stability and reactivity

Reactivity	May be corrosive to metals.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials. None under normal conditions.
Incompatible materials	Strong acids. Metals.
Hazardous decomposition products	Oxides of carbon and phosphorus evolved in fire.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.

Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
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Information on toxicological effects

Acute toxicity	May cause respiratory irritation.
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Product	Species	Test Results
OPTISPERSE HP54674		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg (Calculated according to GHS additivity formula)
Oral		
LD50	Rat	> 5000 mg/kg (Calculated according to GHS additivity formula)

Components	Species	Test Results
Sodium hydroxide (CAS 1310-73-2)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	1350 mg/kg
Oral		
LD50	Rabbit	> 500 mg/kg
Skin corrosion/irritation	Causes severe skin burns and eye damage.	
Serious eye damage/eye irritation	Causes serious eye damage.	
Respiratory or skin sensitization		
Respiratory sensitization	This product is not expected to cause respiratory sensitization.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Not listed.		
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)		
Not listed.		
US. National Toxicology Program (NTP) Report on Carcinogens		
Not listed.		
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
Specific target organ toxicity - single exposure	May cause respiratory irritation.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Based on available data, the classification criteria are not met.	
Chronic effects	Prolonged inhalation may be harmful.	

12. Ecological information

Ecotoxicity				
Product		Species		Test Results
Aquatic				
Crustacea	LC50	Daphnia magna		4060 mg/L, 48 hour (Estimated)
	NOEL	Daphnia magna		2730 mg/L, 48 hour (Estimated)
Fish	LC50	Fathead Minnow		> 5000 mg/L, 96 hour (Estimated)
	NOEL	Fathead Minnow		3270 mg/L, 96 hour (Estimated)

Persistence and degradability

- COD (mgO2/g)	79 (calculated data)
- BOD 5 (mgO2/g)	0 (calculated data)
- BOD 28 (mgO2/g)	0 (calculated data)
- Closed Bottle Test (% Degradation in 28 days)	0 (calculated data)
- Zahn-Wellens Test (% Degradation in 28 days)	0 (calculated data)
- TOC (mg C/g)	24 (calculated data)
Bioaccumulative potential	Not bioaccumulating
Mobility in soil	No data available.
Other adverse effects	Not available.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	D002: Waste Corrosive material [pH <=2 or >=12.5, or corrosive to steel] The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN3266
UN proper shipping name	Corrosive liquid, basic, inorganic, n.o.s. (SODIUM HYDROXIDE, SODIUM PHOSPHATES), RQ(SODIUM HYDROXIDE, HYDROQUINONE (1,4-BENZENEDIOL))
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Special precautions for user	Not available.
ERG number	154
Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.	

IATA

UN number	UN3266
UN proper shipping name	Corrosive liquid, basic, inorganic, n.o.s. (SODIUM HYDROXIDE, SODIUM PHOSPHATES)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	154
Special precautions for user	Not available.

IMDG

UN number	UN3266
UN proper shipping name	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (SODIUM HYDROXIDE, SODIUM PHOSPHATES), RQ(SODIUM HYDROXIDE, HYDROQUINONE (1,4-BENZENEDIOL))
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-B
Special precautions for user	Not available.

DOT





15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Sodium hydroxide (CAS 1310-73-2) Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Yes

Classified hazard categories

Corrosive to metal
Skin corrosion or irritation
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Hydroquinone (CAS 123-31-9)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Contains component(s) regulated under the Safe Drinking Water Act.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Food and drug administration ALL ingredients in this product are authorized in 21CFR173.310 for use as boiler water additives where the steam may contact food.

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

Sodium hydroxide (CAS 1310-73-2)

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

No ingredient listed.

16. Other information, including date of preparation or last revision

Issue date Dec-15-2014

Revision date Feb-18-2023

Version # 3.1

NFPA ratings Health: 3
Flammability: 0
Instability: 0

NFPA ratings



List of abbreviations

CAS: Chemical Abstract Service Registration Number
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.
ACGIH: American Conference of Governmental Industrial Hygienists
NOEL: No Observed Effect Level
STEL: Short Term Exposure Limit
LC50: Lethal Concentration, 50%
LD50: Lethal Dose, 50%
TWA: Time Weighted Average
BOD: Biochemical Oxygen Demand
COD: Chemical Oxygen Demand
TOC: Total Organic Carbon
IATA: International Air Transport Association
IMDG: International Maritime Dangerous Goods Code
OSHA: Occupational Safety & Health Administration.
NFPA: National Fire Protection Association

References: No data available

Disclaimer 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. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information Exposure controls/personal protection: Appropriate engineering controls

Exposure controls/personal protection: Eye/face protection

Exposure controls/personal protection: Respiratory protection

Exposure controls/personal protection: Other

Physical & Chemical Properties: Multiple Properties

Physical and chemical properties: Form

Disposal considerations: Contaminated packaging

Disposal considerations: Disposal instructions

Transport Information: Material Transportation Information

Other information, including date of preparation or last revision: Prepared by

Prepared by This SDS has been prepared by Veolia Water Technologies & Solutions' Regulatory Department (1-215-355-3300).

* Trademark of Veolia. May be registered in one or more countries.

Revision Date 07-Mar-2023

Version 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Saturated Sodium Chloride Treated Brine

Other means of identification

Product Code(s) LCM BRINE

UNID No N/A

Recommended use of the chemical and restrictions on use

Recommended Use Industrial & Oilfield applications

Uses Advised Against None known

Details of the supplier of the safety data sheet

Manufacturer Address Texas Brine, LLC.
4800 San Felipe St.
Houston, Texas 77056

Emergency telephone number

Company Phone Number 713-664-5711

Emergency Contact: CHEMTREC: +1-703-741-5970 (GLOBAL)
1-800-424-9300 (NORTH AMERICA)

2. HAZARDS IDENTIFICATION

OSHA Regulatory Status

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

GHS Label elements, including precautionary statements

Warning

Hazard Statements

Causes eye irritation



Emergency Overview

The product contains no substances which at their given concentration, are considered to be hazardous to health

Appearance

Hazy

Physical state

Liquid

Odor

Salty

Unknown acute toxicity

25% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Water	7732-18-5	60-100
Sodium Chloride	7647-14-5	10-30

This product may contain trace concentrations of petroleum hydrocarbon constituents, including benzene.

4. FIRST AID MEASURES**First aid measures for different exposure routes**

Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 30 minutes. If a contact lens is present, DO NOT delay flushing or attempt to remove the lens. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Get medical attention if irritation persists.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Inhalation	Move to fresh air. Keep at rest in a position comfortable for breathing.
Ingestion	Never give anything by mouth to an unconscious person. Drink plenty of water. Induce vomiting, but only if victim is fully conscious. If large quantity is consumed, seek medical attention or toxicity center immediately.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician	Keep patient under observation. Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

<u>Suitable Extinguishing Media</u>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<u>Unsuitable Extinguishing Media</u>	None known.
<u>Specific hazards arising from the chemical</u>	Negligible fire hazard.
<u>Hazardous Combustion Products</u>	None.
<u>Explosion data</u>	
Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.

Protective Equipment and Precautions for Firefighters

Fire-Fighters should wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal Precautions, Protective Equipment and Emergency Procedures****Environmental Precautions**

Environmental Precautions	Keep out of waterways. Brine Solution (salt water) may be fatal to freshwater species. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
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Methods and Materials for Containment and Cleaning Up

Methods for Containment	Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).
Methods for Cleaning Up	Use mechanical means such as pumps and absorbent materials. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on safe handling	Wear personal protective equipment to avoid direct contact with this chemical. Keep containers tightly closed when not in use or empty. Handle in accordance with good industrial hygiene and safety practice.
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Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions	Brine Solution causes corrosion of metal components. Dike and vent storage tank.
Incompatible products	Strong mineral acids. Sulfuric acid. Nitric Acid.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Exposure controls**

Engineering Measures	Ensure that eyewash stations and safety showers are close to the workstation location.
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Individual protection measures, such as personal protective equipment

Eye/Face Protection	Safety glasses with side-shields or Tightly fitting safety goggles.
Skin and body protection	Chemical resistant. Skin and body protection. Rubber or neoprene footwear. Impervious clothing materials such as rubber, neoprene, nitrile or polyvinyl chloride. Wear liquid proof rubber or neoprene gloves.
Respiratory protection	Not normally required under normal use. In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice. Avoid creation of mist or spray.

9. PHYSICAL AND CHEMICAL PROPERTIES**Physical and chemical properties**

Physical state	Liquid	Odor	Salty
Appearance	Hazy	Odor Threshold	No data available
Color	No data available		
Property	Values	Note • Method	
pH @ 20 °C	8.5 - 11.2	Estimated value(s)	
Melting/freezing point	No information available	Estimated value(s)	
Boiling point/boiling range	103°C/217°F	Estimated value(s)	
Flash Point	Non Flammable		
Evaporation rate	N/A	Estimated value(s)	

Flammability (solid, gas)	No data available	Estimated value(s)
Flammability Limits in Air		
Upper Flammability Limit	No data available	
Lower Flammability Limit	No data available	
Vapor pressure	No data available	Estimated value(s)
Vapor density	N/A	Estimated value(s)
Specific Gravity	1.17 - 1.20	Estimated value(s)
Water solubility	No data available	Estimated value(s)
Solubility in other solvents	No data available	
Partition coefficient: n-octanol/water	No data available	Estimated value(s)
Autoignition temperature	No data available	Estimated value(s)
Decomposition temperature	No data available	Estimated value(s)
Viscosity, kinematic	No data available	Estimated value(s)
Viscosity, dynamic	No data available	Estimated value(s)
Explosive properties	No data available	
Oxidizing Properties	No data available	

Other information

Softening point	No data available
Molecular Weight	No data available
VOC Content	No data available
Density	No data available
Bulk Density	No data available

10. STABILITY AND REACTIVITY**Reactivity**

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Not expected under recommended storage conditions.

Conditions to Avoid

None known based on information supplied.

Incompatible Materials

Strong mineral acids. Sulfuric acid. Nitric Acid.

Hazardous Decomposition Products

Hydrogen chloride gas is released on contact with strong mineral acids.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Eye contact	Contact with eyes may cause irritation.
Skin contact	Prolonged contact may cause redness and irritation.
Inhalation	May cause irritation of respiratory system.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Serious salt poisonings in humans have occurred from both accidental and deliberate ingestion.

Information on toxicological effects

Symptoms	No data available.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No data available.
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Mutagenic Effects	No data available.
Carcinogenicity	No data available.
Reproductive Toxicity	No data available.
Specific target organ systemic toxicity (single exposure)	No information available.
Specific target organ systemic toxicity (repeated exposure)	No information available.
Aspiration hazard	No information available.

Numerical measures of toxicity - Product Information

Unknown acute toxicity	25% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document	
ATEmix (oral)	12000 mg/kg
LD50 Oral (mg/kg)	12005 mg/kg (rat) Estimated

12. ECOLOGICAL INFORMATION**Ecotoxicity**

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Sodium Chloride 7647-14-5	-	5560 - 6080 mg/L: 96 h Lepomis macrochirus LC50 flow-through 12946 mg/L: 96 h Lepomis macrochirus LC50 static 6020 - 7070 mg/L: 96 h Pimephales promelas LC50 static 7050 mg/L: 96 h Pimephales promelas LC50 semi-static 6420 - 6700 mg/L: 96 h Pimephales promelas LC50 static 4747 - 7824 mg/L: 96 h Oncorhynchus mykiss LC50 flow-through	1000 mg/L: 48 h Daphnia magna EC50 340.7 - 469.2 mg/L: 48 h Daphnia magna EC50 Static

Persistence and degradability No data available.**Bioaccumulation** No data available.**Other adverse effects** No data available.**13. DISPOSAL CONSIDERATIONS****Waste treatment****Waste Disposal Methods** Dispose of in accordance with federal, state, and local regulations.**Contaminated packaging** Do not re-use empty containers.**14. TRANSPORT INFORMATION****Harmonized Tariff Schedule / Schedule B****HTS/Schedule B Code** 2501.00.0000

<u>DOT</u>	Not regulated.
<u>UNID No</u>	N/A
<u>TDG</u>	Not regulated.
<u>MEX</u>	Not regulated.
<u>ICAO</u>	Not regulated.
<u>ICAO/IATA</u>	Not regulated.
<u>IMDG/IMO</u>	Not regulated.
<u>RID</u>	Not regulated.
<u>ADR/RID</u>	Not regulated.
<u>ADN</u>	Not regulated.

15. REGULATORY INFORMATION

International Inventories

TSCA	-
DSL/NDSL	-
EINECS/ELINCS	-
ENCS	-
IECSC	-
KECL	-

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

This product is not a substance regulated as a pollutant pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42). This product may contain trace amounts of substances regulated as pollutants under the Clean Water Act, as detailed in Section 3 herein.

CERCLA

This material, as supplied, is not a substance regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA)(40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA)(40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material. This material may contain trace amounts of substances regulated as hazardous substances under CERCLA, as detailed in Section 3 herein.

U.S. State Regulations**U.S. State Right-to-Know Regulations****U.S. EPA Label Information**

EPA Pesticide registration number Not applicable

16. OTHER INFORMATION

Prepared By EHS Department
Texas Brine, LLC.
4800 San Felipe St.
Houston, Texas 77056

Revision Date 07-Mar-2023

Reason for Revision: SDS sections updated 2, 16

Disclaimer

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. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

end



Safety Data Sheet

1. Product Identifier and Company Identification

Product name	: Sodium Hydroxide, 10-50%, Liquid	
HBCC SDS number	: CC12000	
Synonym(s)	: Sodium Hydroxide; Soda Lye; Lye; Caustic Soda	
Product use and Restrictions	: Refer to label or call	
Manufacturer	: Corporate Headquarters	Corporate Safety & Compliance
Contact Address	Hill Brothers Chemical Company 1675 North Main Street Orange, California 92867 714-998-8800 800-821-7234	Hill Brothers Chemical Company 7121 West Bell Road, Suite 250 Glendale, Arizona 85308 623-535-9955 - Office 623-535-9944 - Fax
Emergency telephone Number (Chemtrec)	: 800-424-9300	
Website	: http://hillbrothers.com	

2. Hazard Identification

Classification	: Skin Corrosion/Irritation – Category 1 Serious Eye Damage/Eye Irritation – Category 1
Signal Word	: DANGER
Pictogram(s)	: 
Hazard Statements	: H314: Causes severe skin burns and eye damage.

Precautionary Statements

Response	: P304+P340+P310: IF INHALED: Removed person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or physician. P301+P310+P330+P331: IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting. P303+P361+P353+P363+P310: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor. P305+P351+P338+P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
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Continue rinsing. Immediately call a POISON CENTER or doctor.

Prevention : P280: Wear protective gloves/protective clothing/eye protection/face protection.
P264: Wash hands thoroughly after handling.

Storage : P405: Store locked up.

Disposal : P501: Dispose of contents and container in accordance with all local/regional/national/international regulation.

3. Composition/Information on Ingredients

CAS Number	Ingredient Name	Weight %
1310-73-2	Sodium Hydroxide	10-50%

4. First Aid Measures

Ingestion : Do Not Induce Vomiting. If the person is conscious, give him large quantities of water immediately to dilute the sodium hydroxide. Do not attempt to make the exposed person vomit. DO NOT INDUCE VOMITING! GET MEDICAL ATTENTION IMMEDIATELY.

Inhalation : Move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. If breathing is difficult, give oxygen. Keep the affected person warm and at rest. GET MEDICAL ATTENTION IMMEDIATELY.

Skin : Immediately flush contaminated skin with water. If large areas of the body are contaminated or if clothing is penetrated, immediately use safety shower, removing clothing while under the shower. Flush exposed areas with large amounts of water for at least 15 minutes. GET MEDICAL ATTENTION IMMEDIATELY. Wash clothing before reuse.

Eyes : Immediately flush eyes with a directed stream of water for at least 15 minutes. Forcibly hold eyelids apart to ensure complete irrigation of all eye and lid tissue. Washing eyes within 1 minute is essential to achieve maximum effectiveness. GET MEDICAL ATTENTION IMMEDIATELY. Contact lenses should not be worn when working with this chemical.

Medical Conditions : Sodium hydroxide is a respiratory irritant. Persons with pre-existing skin disorders or eye problems or impaired pulmonary function may be at increased risk from exposure, and should have limited exposure to this material.

Effects of Overexposure : N/A

Summary of Acute Health Hazards : N/A

Ingestion : Corrosive! Swallowing sodium hydroxide may cause severe burns of the mouth, throat, esophagus, and stomach. Death may result. Severe scarring

of the throat may occur on recovery after swallowing sodium hydroxide. Symptoms may include sneezing, bleeding, vomiting, diarrhea, fall in blood pressure. Damage may appear days after exposure. An increased number of esophageal cancer cases have been reported to occur in individuals who have scarring of the esophagus from swallowing sodium hydroxide.

Inhalation

- : Severe Irritant. Effects from inhalation of the dusts, mists, or spray will vary from mild irritation to destructive burns depending on the severity of exposure. Symptoms may include sneezing, sore throat or runny nose. Severe pneumonitis may occur.

Skin

- : Corrosive! Contact of the skin may cause skin irritation and, with greater exposure, severe burns with scarring.

Eyes

- : Corrosive! Sodium hydroxide is destructive to eye tissues on contact, will cause severe burns that result in damage to the eyes and even blindness. Contact lenses should not be worn when working with this chemical.

Note to Physicians

- : Perform endoscopy in all cases of suspected sodium hydroxide ingestion. In cases of severe esophageal corrosion, the uses of therapeutic doses of steroids should be considered. General supportive measures with continual monitoring of gas exchange, acid-base balance, electrolytes, and fluid intake are also required.

Summary of Chronic Health : The chronic local effect may consist of multiple areas of superficial destruction of the skin or of primary irritant dermatitis. Similarly, inhalation of dust, spray, or mist may result in varying degrees of irritation or damage to the respiratory tract tissues and an increased susceptibility to respiratory illness. Effects may be delayed.

Signs and Symptoms of Exposure

- : A physician should be contacted if anyone develops any signs or symptoms and suspects that they are caused by exposure to sodium hydroxide.

5. Fire Fighting Measures

Extinguishing

- : Foam, carbon dioxide, or dry chemicals may be used where this product is stored. Adding water to caustic solution generates large amounts of heat. Do NOT get water inside containers.

Special Exposure Hazards

- : Not combustible but solid form in contact with moisture or water may generate sufficient heat to ignite combustible materials. Contact with some metals can generate hydrogen gas. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Vapors may be heavier than air.

Special Protective Equipment for Firefighters

- : This product is not combustible. Full protective clothing and self-contained breathing apparatus should be worn in areas where product is stored.

Fire Fighting Procedures

- : Use only flood quantities of water as spray. DO NOT use halogenated extinguishing agents. Use carbon dioxide or suitable dry chemical extinguishers.

NFPA Rating

- : Health - 3
- Flammability - 0
- Instability - 1



0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

Uniform Fire Code Rating

- : N/A

6. Accidental Release Measures

Personal Precautions

- : Avoid runoff into storm sewers and ditches which lead to waterways.

Emergency Procedures

- : Leaks should be stopped.

Methods of Containment And Clean-Up

- : Spills should be contained and cleaned up immediately. Spills should be removed by using a vacuum truck. Neutralize remaining traces of material with any dilute inorganic acid such as hydrochloric, sulfuric, nitric, phosphoric, or acetic acid. The spill area should then be flushed with water, followed by liberal covering of sodium bicarbonate. All clean-up material should be removed and placed in approved containers, labeled and stored in a safe place to await proper treatment or disposal. Spills on areas other than pavement (dirt or sand) may be handled by removing the affected soils and placing in approved containers.

7. Handling and Storage

Safe Handling

- : Prevent possible eye and skin contact by wearing protective clothing and equipment. Sodium hydroxide reacts with reducing sugars such as fructose, lactose, maltose, galactose, levulose, and arabinose to form carbon monoxide. While the potential for worker exposure to carbon monoxide may be small, a potential does exist during cleaning of certain dairy and possibly other industry equipment. Carbon monoxide gas can form upon contact with food and beverage products in enclosed spaces and can cause death. Follow appropriate tank entry procedures.

Storage

- : Storage tanks must be vented and diked. Store drums of sodium hydroxide separate from acids, metals and explosives. Provide adequate drainage. When diluting, use agitation and add concentrated sodium hydroxide to water at a controlled rate to control heat of dilution and to avoid splattering. Do not add water to sodium hydroxide. Do not store with aluminum or magnesium. Store above 60°F (16°C) to prevent freezing.

Work/Hygienic Practices

- : Avoid contact with the skin and avoid breathing dust or mist. Do not eat, drink, or smoke in work area. Wash hands before eating, drinking, or using

toilet facilities. Do NOT place food, coffee or other drinks in the area where dusting or splashing of solutions is possible.

Ventilation

- : Ventilation is not usually required for sodium hydroxide solutions. Avoid creation of mist or spray. If present wear appropriate safety clothing and provide local exhaust systems. Where carbon monoxide may be generated, special ventilation may be required.

Special Mixing and Handling Instructions

- : Considerable heat is generated when water is added to sodium hydroxide; therefore, when making solutions always add the sodium hydroxide to the water with constant stirring. The water should always be lukewarm (80° - 100° F). Never start with hot or cold water. If sodium hydroxide becomes concentrated in one area, or if added too rapidly, or if added to hot or cold water, a rapid temperature increase can result in dangerous boiling and/or spattering or may cause an immediate violent eruption.

8. Exposure Controls/Personal Protection

Occupational Exposure Limits

Chemical Name: Sodium Hydroxide Liquid				
Exposure Limits (TWAs) in Air				
CAS Number	IDLH	ACGIH TLV	OSHA PEL	STEL
1310-73-2	10mg/m ³	2 mg/m ³	2 mg/m ³	N/A

Protective Equipment

- : Persons not wearing protective equipment and clothing should be restricted from areas of spills until cleanup has been completed. Employees should be provided with and required to use impervious clothing, gloves, face shield (eight-inch minimum), and other appropriate protective clothing Necessary to prevent any possibility of skin contact with solutions of sodium hydroxide. Materials suggested for use are natural rubber, butyl rubber, neoprene, or vinyl. Employees should be provided with and required to use dust- and splash-proof safety goggles where there is any possibility of sodium hydroxide contacting the eyes. Contact lenses should not be worn when working with this chemical. Eyewash stations and safety showers must be available in the immediate work area for emergency use.

Eye Protection

- : Face shield (eight-inch minimum), and other appropriate protective clothing necessary to prevent any possibility of skin contact with solutions of sodium hydroxide. Employees should be provided with and required to use dust- and splash-proof safety goggles where there is any possibility of sodium hydroxide contacting the eyes.

Respiratory Protection

- : Good industrial hygiene practices recommend that engineering controls be used to reduce environmental concentrations to the permissible exposure level. However, there are some exceptions where respirators may be used to control exposure. Respirators may be used when engineering and work practice controls are not technically feasible, when such controls are in the process of being installed, or when they fail and need to be supplemented. If the use of respirators is necessary, the only respirators permitted are those that have been approved by the Mine Safety and Health Administration or by the National Institute for Occupational Safety and Health.

9. Physical and Chemical Properties

Concentration by Wt. %	10%	15%	20%	25%	30%	33%	50%
Boiling Point °F (°C)	218 (103)	222 (106)	226 (108)	234 (112)	242 (117)	245 (118)	288 (142)
Freezing Point °F (°C)	12 (-11)	-5 (-21)	-16 (-27)	-13.9 (-25.5)	32 (0.0)	44 (6.7)	54 (12)
Vapor Pressure mmHg@20 °C	NA	NA	NA	17	14	25	76
Sp. Gravity 60°F / 15.2°C	1.112	1.167	1.223	1.278	1.332	1.363	1.530

Chemical Formula: NaOH
Odor: No Odor
Appearance: Clear to slightly gray liquid
Flash Point: None
Flammability: N/A
pH: 14.0
Solubility in Water: Complete
Viscosity: N/A
Vapor Pressure mmHg@20°C: 1.5 -1.6
Molecular Weight: 40.0 (dry basis)

How to detect this Compound

: Sampling and analyses may be performed by collection of sodium hydroxide in a glass bubbler containing hydrochloric acid, followed by subsequent titration. Also, detector tubes certified by NIOSH under 42 CFR Part 84 or other direct-reading devices calibrated to measure sodium hydroxide may be used.

10. Stability and Reactivity

Reactivity

: Sodium hydroxide, even in fairly dilute solution, reacts readily with various sugars to produce carbon monoxide.

Chemical Stability

: Stable

Possibility of Hazardous Reactions or Polymerizations

: Hazardous polymerization will not occur

Conditions to Avoid

: Overheating in storage accelerates corrosion.

Incompatible Materials

: Contact with water, acids, flammable liquids, and organic halogen compounds, especially trichloroethylene, may cause fires and explosions. Contact with metals such as aluminum, tin, and zinc and alloys containing these metals cause formation of flammable hydrogen gas. Contact with nitromethane and other similar nitro compounds cause formation of shock-sensitive salts. Contact with water releases heat which can result in boiling and splattering.

Hazardous Decomposition Products

: None

11. Toxicological Information

Acute and Chronic Effects : Sodium hydroxide is a strong alkali; the mist, dust and solutions cause severe injury to the eyes, mucous membranes, and skin. Although inhalation is usually of secondary importance in industrial exposures, the effects from the dust or mist will vary from mild irritation of the nose at 2 mg/m³ to severe pneumonitis, depending on the severity of exposure. The greatest industrial hazard is rapid tissue destruction of eyes or skin upon contact with either the solid or with concentrated solutions. Contact with the eyes causes disintegration and sloughing of conjunctival and corneal epithelium, corneal opacification, marked edema, and ulceration; after 7 to 13 days either gradual recovery begins, or there is progression of ulceration and corneal opacification. Complications of severe eye burns are symblepharon (adhesion of the lid to the eyeball) with overgrowth of the cornea by a vascularized membrane, progressive or recurrent corneal ulceration, and permanent corneal opacification. On the skin, solutions of 25 to 50% cause the sensation of irritation within about 3 minutes; with solutions of 4%, this does not occur until after several hours. If not removed from the skin, severe burns with deep ulceration will occur; exposure to the dust or mist may cause multiple small burns, with temporary loss of hair. Ingestion produces severe pain in the esophagus and stomach, corrosion of the lips, mouth, tongue, and pharynx and the vomiting of large pieces of mucosa; cases of squamous cell carcinoma of the esophagus have occurred with latent periods of 12 to 42 years after ingestion; these cancers may have been sequelae of tissue destruction and possibly scar formation rather than from a direct carcinogenic action of sodium hydroxide itself.

Routes of Exposure

Ingestion : Yes
Inhalation : Yes
Skin : Yes
Eyes : Yes

Symptoms related to Physical, Chemical & Toxicological Characteristics : Sodium hydroxide is a strong alkali and is corrosive to any tissue with which it comes in contact.

Numerical Measures of Toxicity : Sodium hydroxide: irritation data: skin, rabbit: 500 mg/24H; severe; eye rabbit: 50 ug/24H severe. Investigated as a mutagen.

Chronic Toxicity : N/A

Carcinogenicity :

Product Name:					
ACGIH	IARC	EPA	NIOSH	NTP	OSHA
No	No	No	No	No	No

TARGET ORGANS : N/A

12. Ecological Information

Ecotoxicity : N/A

Persistence and Degradability : N/A

Bioaccumulative Potential :

Product/Ingredient	Log <i>P</i> _{ow}	BCF	Potential
-	-	-	-

Mobility in Soil : N/A

13. Disposal Considerations

Disposal of Container : Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements. Do not flush to sewer.

14. Transport Information

UN# : UN1824
Proper Shipping Name : Sodium Hydroxide Solution
Hazard Class/Division : 8
Packing Group : II
Marine Pollutant : No
Special Provisions : B2, IB2, N34, T7, TP2
Emergency Response Guidebook : 2012 ERG, Guide 154, pages 246-247
Placard Advisory :



15. Regulatory Information

SARA 302 Extremely Hazardous Substance (EHS) : No chemicals in this material are subject to the reporting requirements of Sara Title III, Section 302.

SARA 304 Extremely Hazardous Substance : No chemicals in this material are subject to the reporting requirements of Sara Title III, Section 304.

(EHS)

SARA 311/312 Hazard Classification

:

Sara 311/312 Hazards				
Acute	Chronic	Flammability	Pressure	Reactivity
Yes	No	No	No	No

SARA 313 Supplier Notification

: This product does not contain any chemical components with known CAS numbers that exceed the reporting requirements of SARA Title III, Section 313.

CERCLA Hazardous Substance Notification

: This product contains a CERCLA reportable hazardous chemical: CAS #1310-73-2 Sodium Hydroxide (RQ) = 1,000 lbs. (454 kgs.)

Clean Air Act (CAA)

: This product is not listed as a pollutant under the US Clean Air Act, Section 12 (40 CFR 61).

California Prop 65

: This product does not contain any chemicals known to the state of California to cause cancer.

Label Warning

: Corrosive

EPA Registration

: None



Maximum use level for Sodium Hydroxide under NSF/ANSI Standard 60

25% Liquid Caustic Soda	Maximum use	200 mg/L
30% Liquid Caustic Soda	Maximum use	167 mg/L
33% Liquid Caustic Soda	Maximum use	152 mg/L
50% Liquid Caustic Soda	Maximum use	100 mg/L

16. Other Information

Revision date

: 05/30/2019

Supersedes

: 04/15/2015

First Issue

: 12/12/1986

Chemical Family/Type

: Alkali

Section(s) changed since last revision

: Section 9, adding 10-20% solution properties

IMPORTANT! Read this SDS before use or disposal of this product. Pass along the information to employees and any other persons who could be exposed to the product to be sure that they are aware of the information before use or other exposure. This SDS has been prepared in accordance with the Globally Harmonized System of Chemical and Labeling of Chemicals (GHS) Fifth Edition and the OSHA Hazard Communication Standard [29 CFR 1910.1200]. The SDS information is based on sources believed to be reliable. Available data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse are beyond our control; **Hill Brothers Chemical Company** makes no warranty, either expressed or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon. Additional information may be necessary or helpful for specific conditions and circumstances of use. It is the user's responsibility

to determine the suitability of this product and to evaluate risks and exercise appropriate precautions for protection of employees and others prior to use.



SAFETY DATA SHEET

STEAMATE* NA2460

1. Identification

Product identifier STEAMATE NA2460
Other means of identification None.
Recommended use Water based internal boiler treatment chemical.
Recommended restrictions None known.

Company/undertaking identification

Veolia WTS USA, Inc.
3600 Horizon Blvd.
Trevose, PA 19053
T 215 355 3300, F 215 953 5524

Emergency telephone

(800) 877 1940

2. Hazard(s) identification

Physical hazards Not classified.
Health hazards Acute toxicity, oral Category 4
Skin corrosion/irritation Category 1A
Serious eye damage/eye irritation Category 1
Sensitization, skin Category 1
Specific target organ toxicity, single exposure Category 3 respiratory tract irritation
OSHA defined hazards Not classified.

Label elements



Signal word Danger

Hazard statement Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. May cause respiratory irritation.

Precautionary statement

Prevention Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

Response If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. Specific treatment (see this label).

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

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

Components	CAS #	Percent
Methoxypropylamine, 3-	5332-73-0	10 - 20
ALKYLENE AMINE	TSRN 125438 - 5225P	

Composition comments Information for specific product ingredients as required by the U.S. OSHA HAZARD COMMUNICATION STANDARD is listed. Refer to additional sections of this SDS for our assessment of the potential hazards of this formulation.

4. First-aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact Remove contaminated clothing immediately and wash skin with soap and water. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye contact Continue rinsing. Call a physician or poison control center immediately.

Ingestion Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media Not available.

Specific hazards arising from the chemical Elemental oxides.

Special protective equipment and precautions for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use.

Environmental precautions Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling Do not breathe mist or vapor. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not taste or swallow. Avoid prolonged exposure. Do not get this material on clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Use care in handling/storage.

Conditions for safe storage, including any incompatibilities Store locked up. Store in original tightly closed container. Store in accordance with local/regional/national/international regulation.

8. Exposure controls/personal protection

Occupational exposure limits

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
Methoxypropylamine, 3- (CAS 5332-73-0)	STEL	15 ppm
	TWA	5 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection Splash proof chemical goggles. Face shield.

Skin protection

Hand protection

Chemical resistant gloves. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. Glove selection must take into account any solvents and other hazards present.

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. A respiratory protection program that meets OSHA's 29 CFR 1910.34 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance	Liquid
Physical state	Liquid.
Form	Liquid.
Color	Colorless to yellow
Odor	Amine
Odor threshold	Not available.
pH (concentrated product)	12.9
Melting point/freezing point	< -30 °F (< -34 °C)
Initial boiling point and boiling range	200 °F (93 °C)
Flash point	> 200 °F (> 93 °C) P-M(CC)
Evaporation rate	< 1 (Ether = 1)
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not available.

Explosive limit - upper (%)	Not available.
Vapor pressure	18 mm Hg
Vapor pressure temp.	70 °F (21 °C)
Vapor density	> 1 (Air = 1)
Relative density	0.97
Relative density temperature	70 °F (21 °C)
Solubility(ies)	
Solubility (water)	100 %
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	23 cps
Viscosity temperature	70 °F (21 °C)
Other information	
pH in aqueous solution	11.7 (5% SOL.)
Pour point	< -30 °F (< -34 °C)
VOC	48 % (Calculated)

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable at normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	None under normal conditions.
Incompatible materials	Avoid contact with strong acids.
Hazardous decomposition products	Elemental oxides

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful. May cause irritation to the respiratory system.
Skin contact	Causes severe skin burns. May cause an allergic skin reaction.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns. Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. May cause respiratory irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
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Information on toxicological effects

Acute toxicity	Harmful if swallowed. May cause an allergic skin reaction. May cause respiratory irritation.
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Product	Species	Test Results
STEAMATE NA2460		
<u>Acute</u>		
Dermal		
LD50	Rabbit	1550 mg/kg (Estimated value)
Oral		
LD50	Rat	2600 mg/kg (Estimated value)
Components	Species	Test Results
ALKYLENE AMINE		
<u>Acute</u>		
Inhalation		
LC50	Rat	> 4.3 mg/l, 4 Hour

Components	Species	Test Results
Oral LD50	Rat	410 mg/kg
Methoxypropylamine, 3- (CAS 5332-73-0)		
<u>Acute</u>		
Dermal LD50	Rabbit	> 2000 mg/kg
Oral LD50	Rat	690 mg/kg
Skin corrosion/irritation	Causes severe skin burns and eye damage.	
Serious eye damage/eye irritation	Causes serious eye damage.	
Respiratory or skin sensitization		
Respiratory sensitization	This product is not expected to cause respiratory sensitization.	
Skin sensitization	May cause an allergic skin reaction.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
IARC Monographs. Overall Evaluation of Carcinogenicity		
Not listed.		
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)		
Not listed.		
US. National Toxicology Program (NTP) Report on Carcinogens		
Not listed.		
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
Specific target organ toxicity - single exposure	May cause respiratory irritation.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Not classified.	
Chronic effects	Prolonged inhalation may be harmful.	

12. Ecological information

Ecotoxicity

Product		Species	Test Results
Aquatic			
Crustacea	10% Mortality	Daphnia magna	62.5 mg/L, 48 hour (pH adjusted)
		Mysid Shrimp	135 mg/L, 48 hour (pH adjusted)
	LC50	Daphnia magna	120 mg/L, 48 hour (pH adjusted)
		Mysid Shrimp	208 mg/L, 48 hour (pH adjusted)
Fish	LC50	Fathead Minnow	707 mg/L, 96 hour (pH adjusted)
	NOEL	Fathead Minnow	250 mg/L, 96 hour (pH adjusted)

Persistence and degradability

- COD (mgO2/g) 630 (calculated data)
- BOD 5 (mgO2/g) 0 (calculated data)
- BOD 28 (mgO2/g) 12 (calculated data)
- Closed Bottle Test (% Degradation in 28 days) 6 (calculated data)
- Zahn-Wellens Test (% Degradation in 28 days) 10 (calculated data)
- TOC (mg C/g) 262 (calculated data)

Bioaccumulative potential No data available.

Mobility in soil No data available.

Material name: STEAMATE* NA2460

Version number: 4.1

Other adverse effects Not available.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Incinerate the material under controlled conditions in an approved incinerator.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	D002: Waste Corrosive material [pH <=2 or >=12.5, or corrosive to steel] The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number	UN2735
UN proper shipping name	Amines, liquid, corrosive, n.o.s. (METHOXYPROPYLAMINE,3-, ALKYLENE AMINE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Special precautions for user	Not available.
ERG number	153
Some containers may be exempt from Dangerous Goods/Hazmat Transport Regulations, please check BOL for exact container classification.	

IATA

UN number	UN2735
UN proper shipping name	Amines, liquid, corrosive, n.o.s. (METHOXYPROPYLAMINE,3-, ALKYLENE AMINE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	No.
ERG Code	153
Special precautions for user	Not available.

IMDG

UN number	UN2735
UN proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S. (METHOXYPROPYLAMINE,3-, ALKYLENE AMINE)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	II
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-B
Special precautions for user	Not available.

DOT





15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical

Yes

Classified hazard categories

Acute toxicity (any route of exposure)
Skin corrosion or irritation
Serious eye damage or eye irritation
Respiratory or skin sensitization
Specific target organ toxicity (single or repeated exposure)

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA)

Contains component(s) regulated under the Safe Drinking Water Act.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Food and drug administration

All ingredients in this product are authorized in 21 CFR176.170 for use in boilers where the steam will be used for manufacturing paper or paperboard.

US state regulations

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

No ingredient listed.

16. Other information, including date of preparation or last revision

Issue date Oct-10-2014

Revision date Feb-12-2023

Version # 4.1

NFPA ratings Health: 3
Flammability: 0
Instability: 0

NFPA ratings



List of abbreviations

CAS: Chemical Abstract Service Registration Number
TSRN indicates a Trade Secret Registry Number is used in place of the CAS number.
ACGIH: American Conference of Governmental Industrial Hygienists
NOEL: No Observed Effect Level
STEL: Short Term Exposure Limit
LC50: Lethal Concentration, 50%
TWA: Time Weighted Average
BOD: Biochemical Oxygen Demand
COD: Chemical Oxygen Demand
TOC: Total Organic Carbon
IATA: International Air Transport Association
IMDG: International Maritime Dangerous Goods Code
LD50: Lethal Dose, 50%
NFPA: National Fire Protection Association

References: No data available

Disclaimer The information in the sheet was written based on the best knowledge and experience currently available. 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. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Revision information Exposure controls/personal protection: Appropriate engineering controls
Exposure controls/personal protection: Respiratory protection
Other information, including date of preparation or last revision: Prepared by
Other information, including date of preparation or last revision: Disclaimer

Prepared by This SDS has been prepared by Veolia Water Technologies & Solutions' Regulatory Department (1-215-355-3300).

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SAFETY DATA SHEET

Version 6.20
Revision Date 09/06/2024
Print Date 09/07/2024

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifiers**

Product name : Sulfuric acid

Product Number : 339741

Brand : Aldrich

Index-No. : 016-020-00-8

CAS-No. : 7664-93-9

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

Identified uses : Laboratory chemicals, Synthesis of substances

Uses advised against : The product is being supplied under the TSCA R&D Exemption (40 CFR Section 720.36). It is the recipient's responsibility to comply with the requirements of the R&D exemption. The product may not be used for a non-exempt commercial purpose under TSCA unless appropriate consent is granted in writing by MilliporeSigma.

1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Inc.
3050 SPRUCE ST
ST. LOUIS MO 63103
UNITED STATES

Telephone : +1 314 771-5765

Fax : +1 800 325-5052

1.4 Emergency telephone

Emergency Phone # : 800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Corrosive to Metals (Category 1), H290

Skin corrosion (Category 1A), H314

Serious eye damage (Category 1), H318

Aldrich - 339741

Page 1 of 12

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard Statements

H290

May be corrosive to metals.

H314

Causes severe skin burns and eye damage.

Precautionary Statements

P234

Keep only in original container.

P264

Wash skin thoroughly after handling.

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.

P304 + P340 + P310

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 +

P310

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P363

Wash contaminated clothing before reuse.

P390

Absorb spillage to prevent material damage.

P405

Store locked up.

P406

Store in corrosive resistant container with a resistant inner liner.

P501

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

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

SECTION 3: Composition/information on ingredients

3.1 Substances

Formula : $\text{H}_2\text{O}_4\text{S}$
Molecular weight : 98.08 g/mol
CAS-No. : 7664-93-9
EC-No. : 231-639-5
Index-No. : 016-020-00-8

Component	Classification	Concentration
sulphuric acid		
	Met. Corr. 1; Skin Corr. 1A; Eye Dam. 1; H290, H314, H318 Concentration limits: >= 0.3 %: Met. Corr. 1,	<= 100 %

	H290; ≥ 15 %: Skin Corr. 1A, H314; 5 - < 15 %: Skin Irrit. 2, H315; 5 - < 15 %: Eye Irrit. 2, H319;	
--	--	--

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Sulfur oxides

Not combustible.

Ambient fire may liberate hazardous vapours.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent and neutralising material (e.g. Chemizorb® H⁺, Merck Art. No. 101595). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

No metal containers.

Tightly closed.

Storage class

Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
sulphuric acid	7664-93-9	TWA	0.2 mg/m ³	USA. ACGIH Threshold Limit Values (TLV)
		TWA	1 mg/m ³	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
		TWA	1 mg/m ³	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants

8.2 Exposure controls

Appropriate engineering controls

Change contaminated clothing and immerse in water. Preventive skin protection Wash hands and face after working with substance.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Viton®

Minimum layer thickness: 0.7 mm

Break through time: 480 min

Material tested: Vitoject® (KCL 890 / Aldrich Z677698, Size M)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact

Material: butyl-rubber

Minimum layer thickness: 0.7 mm

Break through time: 120 min

Material tested: Butoject® (KCL 898)

Body Protection

Acid-resistant protective clothing

Respiratory protection

Recommended Filter type: Filter type P2

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	Form: clear, liquid Color: colorless
b) Odor	odorless
c) Odor Threshold	Not applicable
d) pH	1.2 at 5 g/l
e) Melting point/freezing point	Melting point: 10.31 °C (50.56 °F)
f) Initial boiling point and boiling range	290 °C 554 °F - lit.
g) Flash point	()No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapor pressure	1.33 hPa at 145.8 °C (294.4 °F)
l) Vapor density	3.39 - (Air = 1.0)
m) Density	1.84 g/cm ³ at 25 °C (77 °F) - lit.
Relative density	No data available
n) Water solubility	soluble
o) Partition coefficient: n-octanol/water	Not applicable for inorganic substances
p) Autoignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	none

9.2 Other safety information

Surface tension	55.1 mN/m at 20 °C (68 °F)
Relative vapor density	3.39 - (Air = 1.0)

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

A risk of explosion and/or of toxic gas formation exists with the following substances:

Water
Alkali metals
alkali compounds
Ammonia
Aldehydes
acetonitrile
Alkaline earth metals
alkalines
Acids
alkaline earth compounds
Metals
metal alloys
Oxides of phosphorus
phosphorus
hydrides
halogen-halogen compounds
oxyhalogenic compounds
permanganates
nitrates
carbides
combustible substances
organic solvent
acetylidene
Nitriles
organic nitro compounds
anilines
Peroxides
picrates
nitrides
lithium silicide
iron(III) compounds
bromates
chlorates
Amines

perchlorates
hydrogen peroxide

10.4 Conditions to avoid

no information available

10.5 Incompatible materials

animal/vegetable tissues Contact with metals liberates hydrogen gas.

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - 2,140 mg/kg

Remarks: (ECHA)

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit

Result: Extremely corrosive and destructive to tissue.

Remarks: (IUCLID)

Serious eye damage/eye irritation

Remarks: Causes serious eye damage.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Remarks: (HSDB)

Carcinogenicity

No data available

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional Information

RTECS: WS5600000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Pulmonary edema. Effects may be delayed.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After inhalation of aerosols: damage to the affected mucous membranes. After skin contact: severe burns with formation of scabs. After eye contact: burns, corneal lesions. After swallowing: severe pain (risk of perforation!), nausea, vomiting and diarrhoea. After a latency period of several weeks possibly pyloric stenosis.

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

Stomach - Irregularities - Based on Human Evidence

Stomach - Irregularities - Based on Human Evidence

SECTION 12: Ecological information**12.1 Toxicity**

Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to algae	static test ErC50 - Desmodesmus subspicatus (green algae) - > 100 mg/l - 72 h (OECD Test Guideline 201)

12.2 Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Endocrine disrupting properties

No data available

12.7 Other adverse effects

Biological effects:

Harmful effect due to pH shift.

Caustic even in diluted form.

Does not cause biological oxygen deficit.

Endangers drinking-water supplies if allowed to enter soil and/or waters in large quantities.

Neutralisation possible in waste water treatment plants.

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

SECTION 14: Transport information

DOT (US)

UN number: 1830 Class: 8

Packing group: II

Proper shipping name: Sulfuric acid

Reportable Quantity (RQ): 1000 lbs

Poison Inhalation Hazard: No

IMDG

UN number: 1830 Class: 8

Packing group: II

EMS-No: F-A, S-B

Proper shipping name: SULPHURIC ACID

IATA

UN number: 1830 Class: 8

Packing group: II

Proper shipping name: Sulphuric acid

SECTION 15: Regulatory information

CERCLA Reportable Quantity

Aldrich - 339741

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SECTION 16: Other information

Further information

The information is believed to be correct but is not exhaustive and will be used solely as a guideline, which is based on current knowledge of the chemical substance or mixture and is applicable to appropriate safety precautions for the product. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

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Version: 6.20

Revision Date: 09/06/2024

Print Date: 09/07/2024

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Hydroquinone	123-31-9	2.5 - 10

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

ACETALDEHYDE (CAS 75-07-0)

Hydroquinone (CAS 123-31-9)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

ACETALDEHYDE (CAS 75-07-0)

Safe Drinking Water Act (SDWA) Contains component(s) regulated under the Safe Drinking Water Act.

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

US state regulations**California Proposition 65**

WARNING: This product can expose you to ACETALDEHYDE, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

ACETALDEHYDE (CAS 75-07-0)

Listed: April 1, 1988

US - California Proposition 65 - CRT: Listed date/Developmental toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

No ingredient listed.

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

No ingredient listed.

16. Other information, including date of preparation or last revision

Issue date Nov-14-2014

Revision date Feb-11-2023

Version # 3.1

NFPA ratings Health: 2
Flammability: 0
Instability: 0

NFPA ratings

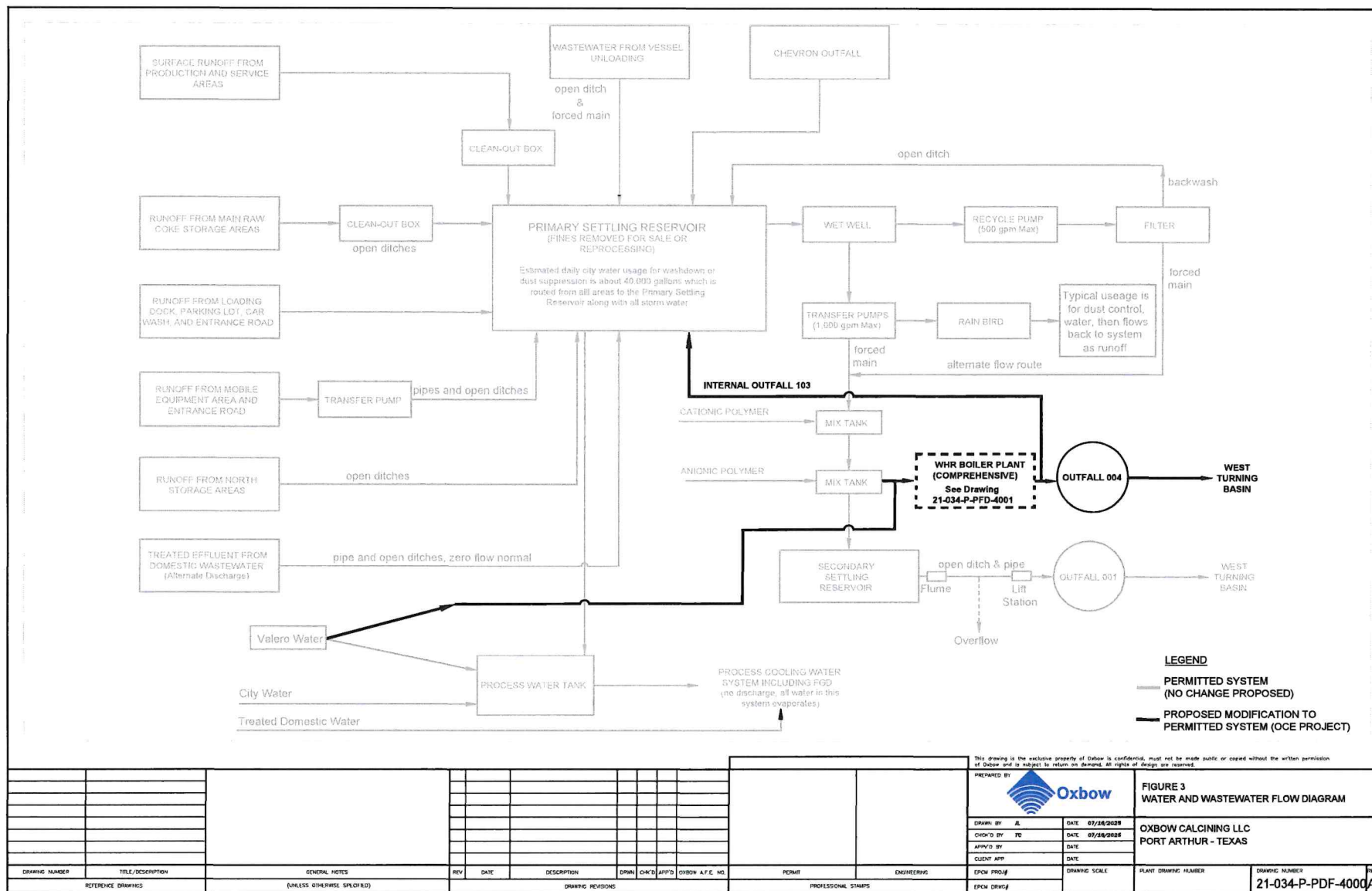
References: No data available

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Revision information This document has undergone significant changes and should be reviewed in its entirety.

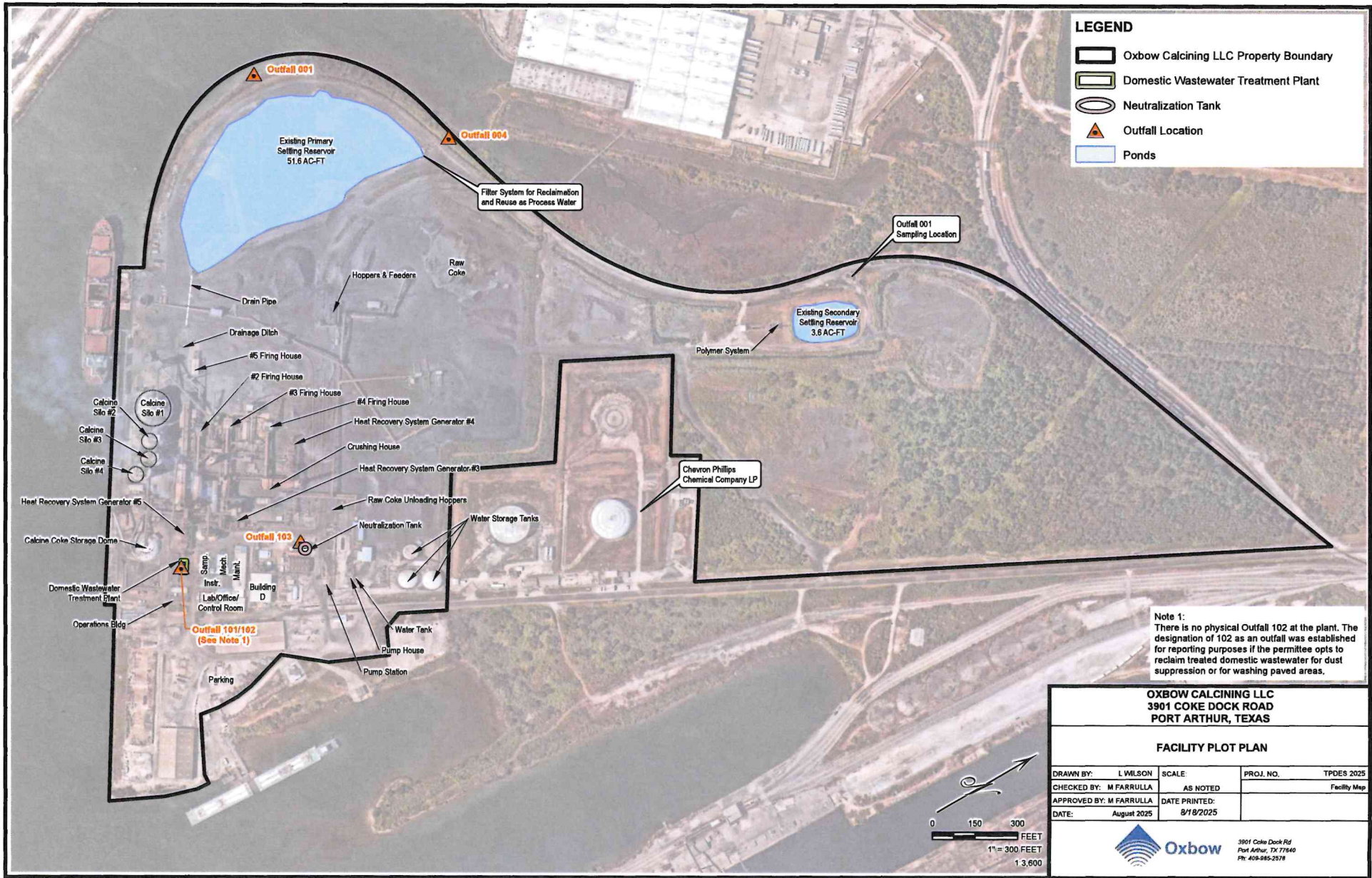
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ATTACHMENT T-2



PREPARED BY:		FIGURE 3 WATER AND WASTEWATER FLOW DIAGRAM	
DRAWN BY: JL CHECKED BY: JD APPROVED BY: CLIENT APP: EPCW PROJ#: EPCW DRWG#:	DATE: 07/16/2023 DATE: 07/16/2023 DATE: DATE: DATE: DATE:	OXBOW CALCINING LLC PORT ARTHUR - TEXAS	
DRAWING NUMBER	TITLE/DESCRIPTION	GENERAL NOTES	REV
REFERENCE DRAWINGS	(UNLESS OTHERWISE SPECIFIED)		
REV	DATE	DESCRIPTION	REVISIONS
PERMIT	PROFESSIONAL STAMPS		
ENGINEERING	DRAWING SCALE		
PLANT DRAWING NUMBER	DRAWING NUMBER	REV	
21-034-P-PDF-4000A			

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Delaware

PAGE 1

The First State

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "GREAT LAKES CARBON LLC", CHANGING ITS NAME FROM "GREAT LAKES CARBON LLC" TO "OXBOW CALCINING LLC", FILED IN THIS OFFICE ON THE EIGHTEENTH DAY OF JULY, A.D. 2007, AT 2:46 O'CLOCK P.M.

2277974 8100

070826825



Harriet Smith Windsor

Harriet Smith Windsor, Secretary of State

AUTHENTICATION: 5854055

DATE: 07-19-07

State of Delaware
Secretary of State
Division of Corporations
Delivered 02:46 PM 07/18/2007
FILED 02:46 PM 07/18/2007
SRV 070826825 - 2277974 FILE

STATE OF DELAWARE
CERTIFICATE OF AMENDMENT

1. Name of Limited Liability Company:

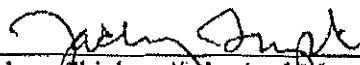
GREAT LAKES CARBON LLC

2. The Certificate of Formation of the limited liability company is hereby amended as follows:

The name of the Company is hereby amended to:

OXBOW CALCINING LLC

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the Company of the 18 day of July, 2007.


Zachary Shipley, Authorized Manager

L E A S E A G R E E M E N T

THIS LEASE AGREEMENT, made and entered into as of June 1, 1975, between RICE-CARDEN CORPORATION, a Missouri corporation (hereinafter referred to as "Lessor"), party of the first part, and GREAT LAKES CARBON CORPORATION, a Delaware corporation (hereinafter referred to as "Lessee"), party of the second part,

WITNESSETH:

WHEREAS, Lessee is engaged in the processing and marketing of petroleum coke, which it desires to transport to and from Port Arthur, Texas, and is also engaged in the retail sale of coke at that point, and it is necessary that the Lessee have sufficient space for the preparation and storage of its product and for prompt and efficient loading of vessels; and that it also have sufficient space for an office building, parking space and retail coke yard; and

WHEREAS, Lessor owns certain real estate at Port Arthur, Texas, including wharves, docks, warehouses and other waterfront facilities, which it has heretofore leased to Lessee; and

WHEREAS, by Lease Agreement dated June 1, 1950 and Supplemental Lease Agreements dated May 1, 1951; June 1, 1951; November 15, 1951; July 20, 1953 and February 15, 1954, The Kansas City Southern Railway Company, a Missouri corporation (hereinafter referred to as "Railway Company") and Lessor's predecessor in interest to the premises covered by this Lease Agreement, leased to Lessee parcels of land in Jefferson County, Texas, which said

Lease and Supplements thereto by 1960 Supplemental Lease Agreement dated January 11, 1960, were extended for a period of five (5) years from June 1, 1960, and further supplemented by a 1961 Supplemental Lease Agreement dated March 10, 1961, including additional property and increasing the rental, and further supplemented by a 1965 Supplemental Lease Agreement dated June 1, 1965, whereby terms of Lease Agreement of June 1, 1950, as amended and supplemented, was extended for a period of ten (10) years, commencing June 1, 1965, and ending May 31, 1975, and further supplemented by a 1969 Supplemental Lease Agreement dated as of April 1, 1969, whereby Railway Company leased to Lessee an additional parcel of land, and again supplemented by Second 1969 Supplemental Lease Agreement dated as of October 1, 1969, whereby Railway Company leased to Lessee an additional parcel of land and further supplemented by a 1970 Supplemental Lease Agreement entered into as of March 1, 1970, whereby Railway Company leased to Lessee an additional parcel of land, and further supplemented by a 1971 Supplemental Lease Agreement entered into as of July 30, 1971, whereby Railway Company leased to Lessee an additional parcel of land, said terms ending May 31, 1975.

WHEREAS, all of said Supplemental Lease Agreements were made subject to the applicable terms in said Lease Agreement dated June 1, 1950, as amended and all were made subject to existing easements or pipeline contracts on said leased land and a provision that should Lessee's use of said land require relocation of one or more of said pipelines, Lessee would save Lessor harmless from any expense in connection therewith; and

WHEREAS, by Assignment Agreement dated July 30, 1971 by and between Railway Company, Lessee, E. I. DuPont de Nemours & Company, a Delaware corporation (hereinafter referred to as "DuPont"), and Hydrocarbon Products Company, Inc., a New York corporation (hereinafter referred to as "Hydrocarbon"), DuPont assigned to Lessee a Lease Agreement dated June 1, 1961 between Railway Company and DuPont. Also by said Assignment Agreement Hydrocarbon assigned to Lessee the following Agreements: Permit for Encroachment dated February 28, 1962 between Railway Company, Port Arthur Canal and Dock Company and Hydrocarbon; Lease Agreement dated November 1, 1974 between Railway Company, Port Arthur Canal and Dock Company and Hydrocarbon; Agreement dated November 16, 1966 between Railway Company, Port Arthur Canal and Dock Company, and Hydrocarbon; and Lease Agreement for Industrial Site dated April 15, 1967 between Railway Company and Hydrocarbon; and

WHEREAS, Lessee now desires to terminate and consolidate all of said prior Leases, Supplemental Leases, Assignments, Permits, and Agreements and enter into a new Lease Agreement for a period of twenty-five (25) years covering all of the parcels of real estate covered by each of the above documents and certain additional real estate, all as hereinafter described;

NOW, THEREFORE, for and in consideration of the premises and agreements hereinafter contained and the payment by each of the parties hereto to the other of the sum of One (\$1.00) Dollar, and for other good and valuable considerations, the receipt of which is hereby acknowledged, the parties hereto mutually covenant and agree as follows:

1. LEASE OF PREMISES: Lessor, for and in consideration of the rental to be paid by the Lessee and of the covenants of the Lessee hereinafter contained, does by these presents lease to the Lessee 111.1 acres, more or less, as outlined in red on Exhibit "A," hereto attached, being print of drawing dated June 5, 1972, entitled "Rice-Carden Corporation, Proposed Lease with Great Lakes Carbon Corporation, at Port Arthur, Texas," together with all of the buildings and improvements thereon (hereinafter referred to as "Leased Premises"); subject, however, to any and all other easements, covenants, agreements and restrictions now of record or previously granted including, but not limited to, all power lines and pipelines crossing the Leased Premises belonging to Gulf Oil Corporation or its subsidiaries; and subject also to the full rights of said Gulf Oil Corporation and its subsidiaries of ingress and egress across the parcel identified on the attached Exhibit "A" as containing 12.2 acres, to the dock and wharf along "Slip No. 1" leased by it from Lessor by Agreement dated February 28, 1958, as amended; and subject also to the right of said Gulf Oil Corporation to add such future power lines and pipelines crossing the Leased Premises as are approved by Lessor and Lessee, such approval by Lessee not to be unreasonably withheld.

TO HAVE AND TO HOLD the same unto the Lessee for a term beginning June 1, 1975, and ending May 31, 2000, unless sooner terminated as hereinafter provided.

2. PURPOSE: The Leased Premises shall be used by the Lessee for the purpose of calcining and otherwise processing

petroleum coke and for the screening, storing, handling, loading and unloading of petroleum coke for rail, highway, water, export and coastwise movements, and for the purpose of maintaining an office building, parking space and a retail coke yard, and also for such other business purposes connected with the above.

3. CONSTRUCTION AND MAINTENANCE - LESSEE'S FACILITIES:

No structural changes, dredging or work in connection with any substantial items of construction or maintenance of Lessee's facilities which, if improperly made, would endanger Lessor's property, operations or employees shall be made by Lessee on the Leased Premises without the prior written consent of Lessor. Lessee shall have the right to take up, add to or otherwise alter any and all of the existing railroad tracks to suit its reasonable operating convenience, after receiving Lessor's written consent, as provided above. Lessor shall have no responsibility whatsoever for any maintenance, dredging, repair or restoration of the Leased Premises or of any premises adjacent thereto or any improvements thereon.

4. CONDUCT OF BUSINESS: The Leased Premises shall be used and occupied for the purposes aforesaid, and in such a manner as not to interrupt or interfere with the business of Lessor. No nuisance shall be committed or allowed on said premises nor any annoyance to the agents, employees of Lessor, or to the public, be permitted and the Lessee shall, at all times, keep the said premises in a neat and clean condition satisfactory to Lessor, and free of debris. The Lessee shall keep its machinery and equipment in safe condition and working order, and shall inspect the same periodically,

and all of its operations shall be carried on with due regard to the usual and customary rules of safety. The Lessee shall, without cost to Lessor, comply with all laws and ordinances and all rules and regulations of public authorities affecting said premises.

The transfer of petroleum coke to and from the Leased Premises to and from vessels, barges, cars, or motor vehicles may be accomplished by means of conveyors operated in connection with one or more sumps upon said Leased Premises, and, if this method be used, the entire costs of constructing, repairing, maintaining and replacing said sump or sumps and said conveyors, including any changes in the property of Lessor, shall be borne by the Lessee.

No goods of an explosive, dangerous or inflammable nature shall, in any case, be stored in or upon the premises without written consent of Lessor.

5. IMPROVEMENTS INSTALLED BY LESSEE: The parties acknowledge and agree that all buildings, structures, equipment and other improvements heretofore or hereafter placed upon the Leased Premises by the Lessee have remained and shall remain the sole and exclusive property of the Lessee regardless of the manner of installation or affixation, and that the same may be removed by the Lessee upon the expiration or other termination of this Lease, subject to Lessee's obligation to restore the site of any such removed improvement to the condition prior to the installation of such improvements. It was and is the intention of the parties that such buildings, structures, equipment and other improvements retain

their character as personalty, regardless of how installed upon, or affixed to, the Leased Premises.

6. FENCES: Lessee's predecessor, Great Lakes Coal & Coke Company, has been permitted to erect fences and gates upon certain of Lessor's premises, and Lessee shall be permitted to maintain, at its sole expense, said fences during the term of this Lease, so long as the same shall be maintained in good repair and safe condition. Lessor shall not be liable for any damage to said fences and gates caused by it. The Lessee shall at all times keep said fences and gates in good repair and in safe condition to the satisfaction of Lessor.

7. CHANGES IN LESSOR'S PROPERTY: All changes and alterations in the property of Lessor, made necessary by the operations or facilities of the Lessee, and all maintenance, repairs and work of restoration, the cost of which the Lessee is required to pay by the provisions of this Lease Agreement, shall be undertaken under the direction of Lessor and in a manner satisfactory to its authorized representative, but the entire cost thereof shall be paid by the Lessee.

8. MAINTENANCE AND REPAIRS - LESSOR'S FACILITIES: Lessor shall not be liable for any dredging or maintenance whatsoever of the Leased Premises or adjoining premises. Lessee shall be liable for the maintenance and repair of all improvements on the Leased Premises with the sole exception of the two buildings known as the "Calcined coke sheds," the building known as the "Hydrocarbon building" and the wooden dock, all as outlined in

green on the attached Exhibit "A," which buildings and dock may be restored, maintained, repaired and utilized at Lessee's sole discretion, liability, cost and expense. Lessee shall not be liable for the removal, destruction or damage to any of the improvements on the Leased Premises heretofore installed by Lessor, with the sole exception of the obligation to restore all of the railroad tracks and the concrete dock, as provided in Section 15 hereof. Notwithstanding any provision of this Section, Lessee hereby agrees to indemnify, hold and save harmless Lessor, its officers, agents and employees and their successors and assigns from any and all loss or liability in any way arising or resulting from or connected with the existence or condition of any of the improvements on the Leased Premises heretofore or subsequently installed by Lessor, to the extent of and as more fully set out in Section 11, hereof.

9. RENTAL: As rental for the Leased Premises, Lessee agrees to pay to Lessor an annual sum, payable semi-annually in advance, equal to a factor of the Prime Rate percentage (as hereinafter defined) plus an additional one-half of one percent (1/2%) times the appropriate market valuation of the Leased Premises (determined as hereinafter set out). The "Prime Rate" shall be defined as that rate of interest in effect at the close of the first business day preceding the effective date of this Agreement or at the close of the first business day preceding each succeeding five year anniversary of said effective date (i.e., June 1 of 1980, 1985, 1990 and 1995), for

commercial loans by the Chemical Bank of New York to its most credit-worthy corporate customers. The appropriate "market valuation" of the Leased Premises shall be that appraisal or reappraisal of the land and improvements determined by a qualified real estate appraiser or appraisers mutually agreed upon by the parties hereto after an inspection of the Leased Premises during the sixty days' prior to the effective date of this Agreement or during the sixty days' prior to each of the said succeeding five year anniversaries of said effective date. For purposes of computing said market valuation of the Leased Premises, the only improvements which shall be included in the computation are the Lessor's railroad tracks and the concrete dock.

The initial Rental Factor and succeeding Rental Factors shall each be effective for five years, automatically being adjusted to reflect the Prime Rate in effect on the day immediately preceding each of the said succeeding five year anniversary dates. The initial market valuation figure and succeeding market valuation figures used to compute the rental hereunder shall each be effective for five years and are subject to redetermination through an inspection and reappraisal, as provided above, during the sixty days prior to each of the said succeeding five year anniversary dates, at the written request of either of the parties hereto. Any such adjustment of the Rental Factor or the market valuation shall be reflected in an Amendment hereto.

For purposes of determining rental hereunder:

(1) Regardless of the actual appraisal, the minimum market valuation figure for rental purposes shall be Two Million

Five Hundred Forty-Two Thousand Seven Hundred and No/100
(\$2,542,700.00) Dollars; and

(2) If any substantial part of the Leased Premises shall be taken by any competent authority under the power of eminent domain or be acquired for any public or quasi-public use or purpose, Lessee shall have the option to terminate this Lease Agreement, as provided in Section 14(b) hereof, or to continue this Lease Agreement with respect to the remainder of the Leased Premises, and notwithstanding the provisions of subparagraph (1), above, the market valuation figure hereinabove provided for shall be reduced in the proportion that the value of the premises so taken bears to the most recent appraisal of the entire premises.

(3) Regardless of the actual Prime Rate in effect, the minimum Rental Factor shall be 6%.

(4) Any rental payable by Third Parties arising from a lease or license agreement granted either prior or subsequent to this Agreement, covering property adjacent to the Leased Premises or arising from power lines or pipelines crossing the Leased Premises shall be the sole property of Lessor.

10. TAXES AND INSURANCE: If said Leased Premises shall be separately assessed for general or special taxes, or if taxes or license fees be assessed against Lessor by reason of the improvements placed on said premises by Lessee, or by reason of the use made of said premises by Lessee, then such taxes

and license fees shall be paid by Lessee. If the taxes of Lessor shall be increased by reason of the improvements placed on said premises by Lessee, or by reason of making this Lease, then the amount of such increases in taxes shall be paid to Lessor by Lessee. Otherwise, all taxes upon the Leased Premises shall be paid by Lessor.

If as a result of Lessee's occupation of the Leased Premises or of the operations of Lessee or the construction, maintenance or storage of any structures or material on the Leased Premises the insurance premium payable by Lessor on any of its property either on or off the Leased Premises is increased, and such increase is due to such acts of Lessee, then and in that event Lessee will pay to Lessor the amount of such increase in premium, within ten days of the receipt of a bill therefor.

11. DAMAGE AND INDEMNITY: Notwithstanding any provision of this Agreement, Lessee hereby agrees to indemnify, hold and save harmless Lessor, its officers, agents and employees and their successors and assigns, from any and all loss, damage, liability, claims, demands, judgments, penalties, fines, costs and expenses (including attorneys' fees and costs of defense) incurred by, asserted against, or imposed upon Lessor, which directly or indirectly, in any manner, arise out of or during the course of Lessee's occupation of or operations on or about the Leased Premises, even though such claims, demands or liability may be due or claimed to be due to the negligent acts or omissions of Lessor, or any of its officers, agents, servants or employees,

unless such negligent acts or omissions occur outside the scope of responsibilities, duties, rights or obligations of Lessor under this Agreement or unless such negligent acts or omissions are not committed for the benefit of Lessee. Lessee further agrees, at its sole cost and expense, to assume and conduct the defense of any such action, suit, or claim for which Lessee has agreed to indemnify, hold and save harmless Lessor under this Section 11.

12. RIGHT OF INSPECTION: The premises shall be open at all reasonable times for inspection by Lessor, its agents, and authorized applicants for purchase or lease.

13. ENVIRONMENTAL PROTECTION CLAUSE: Lessee shall comply with all applicable ordinances, rules, regulations, requirements and laws whatsoever including (by way of illustration only and not by way of limitation) any governmental authority controlling environmental standards and conditions on the premises. If, as a result of Lessee's operation hereunder, any such ordinance, rule, regulation, requirement or law is violated or alleged to be violated, Lessee shall hold, save harmless and defend Lessor from and against any and all actions and penalties imposed upon or incurred by Lessor in any way arising or resulting from or connected with such actual or alleged violation or violations, as more fully set out in Section 11, hereof.

X 14. TERMINATION:

(a) Lessor may terminate this Lease at any time in the event the Lessee shall fail, refuse or be unable to comply with the

terms and conditions hereof, and its failure or refusal so to do shall continue for a period of ninety (90) days after written notice from Lessor.

(b) Either of the parties hereto may terminate this Lease at any time in the event that removal of the wharf or a substantial part of the other facilities on said premises, or the possession of a substantial part of said premises, is required by the United States Government, or other lawful authority or if the Leased Premises or any substantial part thereof shall be taken by any competent authority under the power of eminent domain for any public or quasi-public use or purpose. Any such termination of this Lease shall be upon the date when possession of the Leased Premises or the substantial part thereof so taken shall be required for such use or purpose and with sixty (60) days' written notice first given. If any such above mentioned event shall occur and be applicable only to a portion of the Leased Premises, Lessee shall have the option to continue this Lease Agreement with respect to the remainder of the Leased Premises, and the market valuation figure shall be set as provided for in subparagraph (2) of Section 9 hereof. All damages awarded for any such above mentioned event shall belong to and be the property of Lessor, whether such damages shall be awarded as compensation for diminution in value to the leasehold or to the fee of the Leased Premises; provided, however, that Lessor shall not be entitled to any portion of such award made to Lessee for loss or depreciation to or cost of removal of any improvements installed by Lessee.

(c) If Lessee at any time during the continuance of this Lease shall become insolvent or bankrupt, or if Lessee's affairs should be placed in the hands of a receiver, or if Lessee should make or enter into an agreement, arrangement or assignment for the benefit of creditors, then this Lease shall, at the option of Lessor, terminate and the Lessor shall have the right to resume and retake possession of said premises without any accountability whatsoever to Lessee or to Lessee's estate.

15. SURRENDER OF POSSESSION - RESTORATION OF PREMISES:

Upon the expiration or other termination of this Lease as to all or any portion of the Leased Premises, the Lessee shall surrender peaceful possession of said premises to Lessor. Lessee shall, prior to such expiration or other termination, remove such buildings, foundations, structures, equipment materials, products and other improvements and property placed by it upon said premises which are not a part of Lessor's property, as Lessor may request, and fill in such sumps, pits or other excavations made by Lessee or Lessee's predecessor, Great Lakes Coal & Coke Company, as Lessor may request, and otherwise restore said premises to substantially the same condition as they were when the initial inspection was conducted by the appraiser or appraisers prior to the signing of this Agreement, except for wear and tear resulting from a reasonable use of said premises and damage the cost of repairing which is not for Lessee's account hereunder. Notwithstanding any provision of this section, Lessee shall not be responsible for the restoration or repair of, or liable for the removal, destruction

or damage to, any of the improvements on the Leased Premises heretofore or subsequently installed by Lessor or prior lessees, with the sole exception of all railroad tracks and the concrete dock, which tracks and dock shall be delivered to Lessor upon the termination of this Agreement, in substantially the same condition as they were when the initial inspection was conducted by the appraiser or appraisers prior to the signing of this Agreement, except for normal wear resulting from a reasonable use of the premises, and except as Lessor may agree to a relocation of the railroad tracks pursuant to Section 3 hereof.

All work of restoration or the removal of Lessee's property shall be done in a thorough and workmanlike manner and to the entire satisfaction of Lessor. In the event of failure of Lessee to remove its said property and restore the property of Lessor as aforesaid prior to the expiration or other termination of this Lease, then such removal and restoration may be made by Lessor at the expense of Lessee, which expense Lessee agrees promptly to pay. Lessor shall have a lien upon such property for the expense of removal and restoration, and if Lessee does not pay all of such expenses within fifteen (15) days, then such property shall be and become the property of Lessor or may be sold at public or private sale to satisfy said lien.

16. COST OF REPAIRS AND RESTORATION: In the event that Lessor shall undertake any changes in, repairs to or restoration of any property for the account of the Lessee, as provided in Sections 7., 8., and 15. hereof, respectively, it shall render its

bill therefor to Lessee to cover the actual cost of labor and materials therein used, plus its usual and customary percentages for supervision, accounting, use of tools, and other items of cost, including the proportion of Railroad Retirement and Social Security Taxes applicable to such labor cost, plus 10% of the actual cost of such labor to cover insurance against accidents, it being the intention of the parties that in undertaking any such work Lessor shall be in the relationship of an independent contractor and shall have entire supervision and control thereof. All such bills shall be paid by Lessee within fifteen (15) days after rendered by Lessor.

17. ASSIGNABILITY: This Lease shall not be assigned, nor shall said premises be sublet by Lessee without the consent in writing of Lessor endorsed hereon, and such transfer or sublease, if made, shall be subject to all the conditions and covenants contained herein, and the terms hereof must be accepted by such assignee or sublessee, which acceptance must be in writing.

18. PREVIOUS CONTRACTS: Concurrently with execution of this Agreement, those previous contracts, listed above, between the parties hereto are terminated.

19. NOTICE: Any written notice provided for herein shall be by registered or certified mail to Lessee at the Leased Premises and to Lessor at: 114 West 11th Street, Kansas City, Missouri 64105.

20. CONSTRUCTION: The provisions of this Lease Agreement shall be construed in accordance with the laws of the State of Missouri.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be signed by their duly authorized officers, as of the day and year first above written.

RICE-CARDEN CORPORATION, Lessor

By M. F. McCloud
President

GREAT LAKES CARBON CORPORATION, Lessee

By L. R. Hunter
Vice President

THIS LEASE AMENDMENT, made and agreed to by and between WESTERN
 (8th day of January, 1981, by and between WESTERN
 CENTRAL LIFE ASSURANCE CO. OF OHIO, hereinafter referred to as
 "Lessor" and GREAT LAKES CARBON CORPORATION, hereinafter
 referred to as "Lessee".

W I T N E S S E T H:

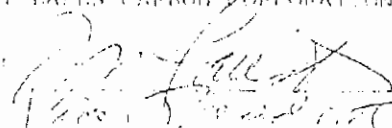
NOW, THEREFORE, in consideration of the premises and mutual
 promises herein contained, it is hereby agreed by the Lessor and
 Lessee that the Lease Agreement dated June 1, 1975, between Rice-
 Garden Corporation (Rice Garden) and Lessee concerning land,
 buildings and improvements at Port Arthur, Texas, and subsequently
 assigned by Rice-Garden to Lessor shall be amended effective as
 of the date hereof as follows:

- (a) Page 4, Section 1 (Lease of Premises) Second
 Paragraph is amended by deleting "May 31, 2000"
 and replacing that date with December 31, 2004.
- (b) Page 8, Section 9 (Rental) Line 10 is amended by
 inserting "2000" following the dates in parenthesis
 to read "(i.e., June 1, 1980, 1985, 1990, 1995
 and 2000)".

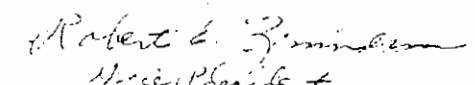
All other terms and conditions of said Lease Agreement,
 except as hereinabove amended, shall remain in full force and
 effect.

IN WITNESS WHEREOF, the parties hereto have caused this
 instrument to be signed by their duly authorized officers as of
 the day and year first above written.

GREAT LAKES CARBON CORPORATION

By: 

Vice President

By: 

Vice President

8505545

MEMORANDUM OF LEASE

21.00
100 93 1545

This is a Memorandum of a Lease Agreement between WESTERN RESERVE LIFE ASSURANCE CO. OF OHIO, successor to RICE-CARDEN CORPORATION, as Lessor, and GREAT LAKES CARBON CORPORATION, as Lessee, which Lease Agreement was executed as of June 1, 1975, as amended by Lease Amendment dated January 18, 1983 (collectively, the "Lease"), the provisions of which are hereby incorporated by reference herein. The addresses for Lessor and Lessee are as follows:

For Lessor: Western Reserve Life Assurance Co. of Ohio
c/o Rice-Carden Corporation
114 West 11th Street
Kansas City, Missouri 64105

For Lessee: Great Lakes Carbon Corporation
299 Park Avenue
New York, New York 10171

The Leased Premises consist of the land located in Jefferson County, Texas which is more particularly described in Exhibit A attached hereto and made a part hereof, together with all buildings and improvements thereon, subject to the easements, covenants, agreements and restrictions specified in the Lease.

The term of the Lease commenced on June 1, 1975 and ends on December 31, 2004.

This Lease Memorandum may be executed in counterparts, any one of which shall be deemed an original whether or not signed by both parties hereto.

GF11143
JCTC

100 93 1546

IN WITNESS WHEREOF, the parties hereto have caused this Memorandum of Lease to be executed by their duly authorized officers as of this 25th day of February, 1985.

Signed and acknowledged
in the presence of:

WESTERN RESERVE LIFE ASSURANCE CO.
OF OHIO

By Robert E. Zimmelman
its Vice President

A. J. Haley
S. E. Micken
Witnesses

GREAT LAKES CARBON CORPORATION

By James D. Cofer
its Vice President

Charles M. H. [Signature]
Caroline M. H. [Signature]
Witnesses

100 93 1547

STATE OF MISSOURI)
COUNTY OF Jackson) SS.

BEFORE ME, a Notary Public in and for said County and State, on this day personally appeared R.E. Zimmerman known to me to be the person whose name is subscribed to the foregoing instrument, and known to me to be the Vice Pres. of WESTERN RESERVE LIFE ASSURANCE CO. OF OHIO, a corporation, and acknowledged to me that he executed said instrument for the purposes and consideration therein expressed, and as the act of said corporation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and official seal at Kansas City, Missouri this 22nd day of February 1985.



Q. B. Niedermeier
Notary Public

My commission expires Q. B. NIEDERMEIER
Notary Public - State of Missouri
Commissioned in Jackson County
My Commission Expires May 29, 1987

100 93 1548

STATE OF NEW YORK)
COUNTY OF New York) SS.

BEFORE ME, a Notary Public in and for said County and State, on this day personally appeared J.D. M'Ginnel, known to me to be the person whose name is subscribed to the foregoing instrument, and known to me to be the Vice-President of GREAT LAKES CARBON CORPORATION, a corporation, and acknowledged to me that he executed said instrument for the purposes and consideration therein expressed, and as the act of said corporation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and official seal at New York, New York this 25th day of February 1985.



Rita A. Martin
Notary Public

My commission expires March 30, 1986

RITA A. MARTIN
Notary Public, State of New York
Qualified in New York County
Certificate Filed in New York County
Commission Expires March 30, 1986

Field Notes:

Tract 1
104.36 Acres
Lease Area
Rice-Carden Corporation

100 93 1549

BEING a 104.36 acre, more or less, tract or parcel of land out of and a part of that certain 214.041 acre tract situated in the John Bennett Survey, B. C. Arthur Survey and the W. H. Thaxton Survey, Jefferson County, Texas and described in deed from Pioneer Western Corporation, to Western Reserve Life Assurance Company of Ohio, dated April 1, 1981 and recorded in Volume 2312, Page 253 of the Deed Records, Jefferson County, Texas, said 104.36 acre tract also being the same land previously referred to as 98.9 acres in Exhibit A contained in an unrecorded Lease Agreement between Rice-Carden Corporation and Great Lakes Carbon Corporation, dated June 1, 1975, said lands as occupied on the ground being more particularly described as follows:

COMMENCING at a Gulf Oil Corporation Brass disk set in concrete and being on the common property line between Gulf Oil Corporation and said 214.041 acre tract; said disk being South 41° 13' West a distance of 2,156.46 feet from the Southwest right-of-way line of County Road as described in Volume 112, Page 192 of the Deed Records, Jefferson County, Texas;

THENCE along and with said common property line and being the most Southwesterly line of said 214.041 acre tract the following calls:

South 25° 48' East - 300.09 feet to a found iron rod;
South 16° 48' 20" East - 230.65 feet to a found iron rod and
being the POINT OF BEGINNING of the tract herein described;

THENCE continuing along and with the most Southwesterly line of said 214.041 acre tract and being the common property line between said 214.041 acre tract and Gulf Oil Corporation for the following calls:

South 15° 11' 17" West - 64.29 feet to a found iron rod.
South 20° 28' 37" West - 200.09 feet to a found iron rod.
South 37° 05' 40" West - 199.80 feet to a found iron rod.
South 49° 55' 06" West - 199.86 feet to a found iron rod.
South 60° 52' 55" West - 199.97 feet to a found iron rod.
South 66° 40' 17" West - 176.03 feet to a found iron rod
which marks the POINT OF BEGINNING of that certain called
Tract No. 1 as described in an agreement amending site,
between Great Lakes Carbon and Power Systems Engineering,
Inc., Cogen Power, Inc., and General Electric Credit Corp.
dated June 14, 1984 and recorded in Film Code 100-64-2509
and continuing along the common line;
South 66° 40' 17" West - 23.97 feet to a point for corner.
South 80° 43' 40" West - 799.15 feet to a point for corner;
South 69° 20' 00" West - 199.30 feet to a point for corner.

South 48° 54' 00" West - 119.34 feet to a point for corner. 100 93 1550
South 0° 53' 16" West - 242.76 feet to a point for corner.
South 10° 25' 20" East - 355.20 feet to a point for corner.
South 1° 33' 16" East - 218.40 feet to a point for corner
in the Northeasterly line of the West turning basin.

THENCE South 53° 03' 51" East along and with the Northeasterly line of the West turning basin and being the most Southerly line of said 214.041 acre tract for a distance of 1,632.29 feet to a point which marks the intersection of the Southerly line of said 214.041 acre tract with the Westerly right-of-way line of a 26.5 foot wide extension of a 40 foot County Road;

THENCE North 36° 45' 50" East along and with the Westerly right-of-way line of said extension for a distance of 195.72 feet to a point in the Southerly end of said 40 foot County Road and being in the Northeasterly side of an old 117.5 foot by 812 foot lumber shed numbered B-83 (now demolished);

THENCE North 52° 03' 41" West along and with the Southerly end of said 40 foot County Road and the Northeasterly side of said old lumber shed for a distance of 8.67 feet to an iron rod set for corner;

THENCE North 31° 06' 29" East along and with the apparent Westerly right-of-way of said County Road for a distance of 1,022.61 feet to an iron rod set for corner;

THENCE 1.0 feet outside and parallel to a chain link fence which encloses the occupied lease area of Warren Petroleum Company for the following calls:

North 53° 00' 00" West - 454.65 feet to an iron rod set for corner,
North 31° 23' 57" East - 354.71 feet to an iron rod set for corner,
North 53° 08' 53" West - 360.42 feet to an iron rod set for corner,
North 31° 41' 11" East - 409.52 feet to an iron rod set for corner,
South 53° 15' 13" East - 358.47 feet to an iron rod set for corner,
North 31° 34' 35" East - 107.86 feet to an iron rod set for corner,
South 53° 01' 38" East - 455.95 feet to an iron rod set for corner
in the apparent Westerly right-of-way line of said 40 foot County Road;

THENCE North 31° 31' 55" East along and with the apparent Westerly right-of-way line of said 40 foot County Road for a distance of 526.83 to an iron rod set for angle point;

THENCE North 30° 46' 23" East and continuing along and with said Westerly right-of-way line for a distance of 1,636.49 feet to an iron rod set for corner which marks the intersection of said apparent Westerly right-of-way line with a line Southeasterly of and generally 50.00 feet normal to the centerline of the Kansas City Southern Railroad main line tracks;

THENCE along and with said line Southeasterly of and generally 50.00 feet normal to said centerline for the following calls:

South 72° 16' 50" West - 54.12 to an iron rod set for corner.
South 73° 59' 14" West - 1,135.18 feet to an iron rod set for corner.
South 78° 57' 14" West - 107.64 feet to an iron rod set for corner.

100 93 1551

South 86° 46' 24" West - 106.50 feet to an iron rod set for corner.
North 86° 10' 12" West - 64.57 feet to an iron rod set for corner and
being in a line Westerly of and 30.00 feet normal to a spur track
from said Kansas City Southern Railroad main line to the Great Lakes
Carbon Loading Docks;

THENCE Along and with the following calls and being Westerly of and generally
30.00 feet normal to said spur track:

South 61° 16' 01" West - 34.14 feet to an iron rod set for corner,
South 34° 00' 33" West - 103.08 feet to an iron rod set for corner,
South 46° 04' 38" West - 103.96 feet to an iron rod set for corner,
South 39° 08' 05" West - 103.99 feet to an iron rod set for corner,
South 30° 00' 48" West - 103.94 feet to an iron rod set for corner,
South 23° 44' 08" West - 102.98 feet to an iron rod set for corner,
South 17° 49' 09" West - 92.13 feet to the PLACE OF BEGINNING and
containing 104.36 acres of land, more or less, as occupied on the
ground this date.

Field Notes:

Tract II
11.46 Acres
Lease Area
Rice-Carden Corporation

100 93 1552

BEING a 11.46 acre, more or less, tract or parcel of land out of and a part of that certain 214.041 acre tract situated in the John Bennett Survey, B. C. Arthur Survey and the W. H. Thaxton Survey, Jefferson County, Texas and described in deed from Pioneer Western Corporation, to Western Reserve Life Assurance Co. of Ohio, dated April 1, 1981 and recorded in Volume 2312, Page 253 of the Deed Records, Jefferson county, Texas, said 11.46 acre tract also being the same land previously referred to as 12.2 acres in Exhibit A contained in an unrecorded Lease Agreement between Rice-Carden Corporation and Great Lakes Carbon Corporation, dated June 1, 1975, said lands as occupied on the ground being more particularly described as follows:

BEGINNING at a point which marks the intersection of the Northeasterly line of the West turning basin and the most Southerly line of said 214.041 acre tract with the Easterly right-of-way line of a 26.5 foot wide extension of a 40 foot County Road as described in an adjacent 104.36 acre tract, called Tract I and being South 53° 03' 51" East - 26.50 feet from its most Southerly corner;

THENCE South 53° 03' 51" East along and with the Northeasterly line of the West turning basin, and being the most Southerly line of said 214.041 acre tract, for a distance of 636.33 feet to a point for corner;

THENCE North 36° 56' 23" East for a distance of 52.22 feet to a point for corner;

THENCE North 53° 03' 40" West for a distance of 40.00 feet to a point for corner in the Westerly shoreline of Slip No. 1;

THENCE along and with the Westerly shoreline of said Slip No. 1 as it general meanders with the following calls:

North 38° 31' 46" East - 24.32 feet to an iron rod set for corner,
North 24° 06' 58" East - 38.73 feet to an iron rod set for corner,
North 64° 15' 45" East - 66.47 feet to an iron rod set for corner,
North 17° 52' 31" West - 60.90 feet to an iron rod set for corner,
North 21° 09' 40" East - 102.77 feet to an iron rod set for corner,
North 11° 35' 47" East - 95.73 feet to an iron rod set for corner,
North 59° 51' 33" West - 98.88 feet to an iron rod set for corner
and being 1.0 foot South of a chain link fence which encloses an occupied Warren Petroleum Company lease area.

THENCE 1.0 foot outside of and parallel to a chain link fence around said lease area to Warren Petroleum for the following calls:

Field Notes

Page -1-

Tract II

11.46 Acres - Lease Area - Rice Carden Corporation

100 93 1553

North 83° 40' 38" West - 30.76 feet to an iron rod set for corner,
North 3° 11' 23" East - 104.75 feet to an iron rod set for corner,
South 83° 10' 01" East - 30.82 feet to an iron rod set for corner,
and being in the Westerly shoreline of said Slip No. 1.

THENCE along and with the general meanders of said Westerly shoreline for the following calls:

North 40° 35' 43" East - 69.06 feet to an iron rod set for corner,
North 33° 15' 55" East - 113.66 feet to an iron rod set for corner,
North 10° 43' 15" East - 192.94 feet to an iron rod set for corner,
North 32° 44' 37" West - 33.83 feet to an iron rod set for corner,
North 25° 02' 23" East - 49.46 feet to an iron rod set for corner
and being 1.0 feet South of a chain link fence which encloses an
occupied Warren Petroleum Company lease area.

THENCE 1.0 foot outside of and parallel to said fence for the following calls:

North 80° 14' 04" West - 49.29 feet to an iron rod set for corner,
North 12° 39' 47" East - 57.60 feet to an iron rod set for corner,
North 83° 18' 26" East - 62.35 feet to an iron rod set for corner
in said shore line.

THENCE along and the general meanders of said shore line for the following calls:

North 14° 16' 37" East - 102.11 feet to an iron rod set for corner,
North 22° 54' 34" East - 107.40 feet to an iron rod set for corner,
North 0° 59' 21" West - 72.08 feet to an iron rod set for corner,

THENCE North 53° 00' 00" West and leaving said shore line for a distance of 201.40 feet to an iron rod set for corner in the apparent Easterly right-of-way line of a 40 foot County Road;

THENCE South 31° 06' 36" West along and with the apparent Easterly right-of-way line of said County Road for a distance of 1,022.80 feet to an iron rod set for corner which marks the Southerly end of said County Road and being in the Northeasterly side of an old Lumber Shed numbered B-83 (now demolished);

THENCE North 52° 03' 41" West along and with the Southerly end of said County Road and the Northeasterly side of said old Lumber Shed for a distance of 5.00 feet to an iron rod set for corner and being in the Easterly edge of a 26.5 foot wide extension of said County Road;

THENCE South 36° 45' 50" West along and with the Easterly edge of said 26.5 foot wide extension for a distance of 195.72 feet to the PLACE OF BEGINNING and containing 11.46 acres of land, more or less, as occupied on the ground this date.

FILED FOR RECORD

[Signature]
COUNTY CLERK
JEFFERS COUNTY TEXAS

FEB 28 3 32 PM '85

FILED AND RECORDED

OFFICIAL PUBLIC RECORDS

Debbie Usery
2004 Jan 06 03:28 PM

2004000578

MILLER 030 00

DEBBIE USOFF COUNTY CLERK
JEFFERSON COUNTY TEXAS

THENCE North 58°49'13" West with a southwest line of said tract herein described, a distance of 129.00 feet to a found 1/2-inch iron rod for an angle point of said tract herein described;

THENCE North 58°30'06" West with a southwest line of said tract herein described, a distance of 83.03 feet to a found 1/2-inch iron rod for an angle point of said tract herein described;

THENCE North 13°01'27" East with a west line of said tract herein described, a distance of 66.52 feet to a found 1/2-inch iron rod for an angle point of said tract herein described;

THENCE North 05°22'28" East with a west line of said tract herein described, a distance of 80.42 feet to a found 5/8-inch iron rod for an angle point of said tract herein described;

THENCE North 03°59'55" West with a west line of said tract herein described, a distance of 59.78 feet to a found 5/8-inch iron rod for an angle point of said tract herein described;

THENCE North 11°45'06" West with a west line of said tract herein described, a distance of 150.75 feet to a found 5/8-inch iron rod for the west corner of said tract herein described;

THENCE North 43°29'41" East with a northwest line of said tract herein described, a distance of 169.60 feet to a found 5/8-inch iron rod with cap stamped "MARK W. HITLEY SPLS 3636" for an angle point of said tract herein described;

THENCE North 28°10'54" East with a northwest line of said tract herein described, a distance of 214.97 feet to a found 5/8-inch iron rod for an interior corner of said tract herein described;

THENCE North 60°49'13" West with a south line of said tract herein described, a distance of 97.16 feet to a found 5/8-inch iron rod for an angle point of said tract herein described;

THENCE North 15°49'13" West with a southwest line of said tract herein described, a distance of 68.21 feet to a found 5/8-inch iron rod for an angle point of said tract herein described;

THENCE North 31°18'34" East with a northwest line of said tract herein described, a distance of 170.14 feet to the POINT OF BEGINNING and containing 7.419 acres (323,166 square feet) of land.

Compiled By:

Weisser Engineering Company
19500 Park Row, Suite 100
Houston, Texas 77084

Job No. CM966 (1442-016)
Date: 11/14/03

LEASE AMENDMENT

THIS LEASE AMENDMENT, made and entered into as of the 17 day of April, 1998, by and between RICE-CARDEN CORPORATION, hereinafter referred to as "Lessor" and GREAT LAKES CARBON CORPORATION, hereinafter referred to as "Lessee";

W I T N E S S E T H :

NOW, THEREFORE, in consideration of the premises and mutual promises herein contained, it is hereby agreed by the Lessor and Lessee that the Lease Agreement dated June 1, 1975, between Rice-Carden Corporation and Lessee, concerning land, buildings and improvements at Port Arthur, Texas, shall be amended effective as of the date hereof as follows:

- (a) The term of said Lease shall be extended to January 1, 2010.
- (b) Page 8 Section 9 (Rental) Line 10 is amended by inserting "2000 and 2005" following the dates in parentheses to read "(i.e., June 1, 1980, 1985, 1990, 1995, 2000 and 2005)".

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be signed in duplicate by their duly authorized officers as of the dates below indicated.

GREAT LAKES CARBON CORPORATION

By

(Name printed)

(Title)

(Date)

James D. McKennie
JAMES D. MCKENNIE
PRESIDENT
4/13/98

RICE-CARDEN CORPORATION

By

(Name printed)

(Title)

(Date)

Glen Ebeling
Glen Ebeling
VP
4-17-98

Approved as to form:

R. P. Bruening by J.M.N.

R. P. Bruening, Senior Vice President & General Counsel

THIRD LEASE AMENDMENT

THIS AMENDMENT, made and entered into as of the ^{February} 24 day of, 2005, between THE KANSAS CITY SOUTHERN RAILWAY COMPANY, a Missouri corporation, hereinafter called "Railway Company", and Great Lakes Carbon LLC, a Delaware limited liability company, hereinafter called "GLC";

WITNESSETH:

WHEREAS, Railway Company, as successor in interest to Rice-Carden Corporation and Western Reserve Life Assurance Company of Ohio, as Lessor, and GLC, previously known as Great Lakes Carbon Corporation prior to a conversion to a limited liability company, as Lessee, are party to that certain Lease Agreement dated June 1, 1975, covering one hundred eleven and one tenth (111.1) acres of land at Port Arthur, Texas, as amended by that certain Lease Amendment dated January 18, 1983, and as further amended by that certain Lease Amendment dated April 17, 1998 (collectively the "Lease"), and

WHEREAS, the parties hereto now desire to further amend said Lease;

NOW THEREFORE, IT IS AGREED:

1. The addresses for Lessor and Lessee are as follows:

The Kansas City Southern Railway Company
Attn: Real Estate Dept.

Street Address:
427 W. 12th Street
Kansas City, Missouri 64105

Mailing Address:
Post Office Box 219335
Kansas City, Missouri 64121-9335

Great Lakes Carbon LLC
551 Fifth Avenue
Suite 3600
New York, New York 10176

2. The Leased Premises consist of a one hundred twelve and eighteen hundredths (112.18) acre parcel of land located in Port Arthur, Jefferson County, Texas, which is more particularly described on Exhibit A attached hereto and made a part hereof, together with all buildings and improvements located thereon, subject to the easements, covenants, agreements and restrictions specified in the Lease.

3. The term of the Lease commenced on June 1, 1975, and ends on December 31, 2025.

4. Section 9 of the Lease RENTAL is stricken in its entirety and replaced with the following:

Lessee shall pay to Lessor a rental of THREE HUNDRED THREE THOUSAND NINE HUNDRED SEVENTY-FIVE and 00/100 DOLLARS (\$303,975.00) per YEAR, payable to Lessor SEMI-ANNUALLY in advance, beginning June 01, 2005. Lessor shall submit to Lessee rental bills addressed to Lessee at see Section 1. However, Lessee shall pay all rental on or before the due date, at the then effective rental rate, regardless of the failure of Lessee to receive a bill from Lessor. The failure of Lessor to bill shall not in any manner waive Lessee's obligation to pay all rental called for under this Lease.

Commencing June 01, 2006, Lessor shall revise the rental then in effect once annually based on the CPI Factor which is defined herein as that percentage of adjustment or fluctuation to the nearest one-tenth of one percent established during the twelve-month period immediately preceding the date the revised rental is to commence, as stated in the Consumer Price Index, All Urban Consumers U. S. City Average, All Items (1967 = 100), published by the United States Department of Labor, Bureau of Labor Statistics, or any successor or substitute index published as a replacement for that Index by said Department or by any other United States governmental agency. Any CPI rental revision made during the year after the anniversary date shall apply retroactively to the anniversary date. In no event shall the revised rental be less than the rental then in effect.

Notwithstanding the above, Lessor at any time following completion of the fixed term of this Lease, may upon thirty (30) days notice in writing to Lessee revise the rental then in effect to the fair rental value of the Premises at the time of such revision.

Lessee's obligation to pay rental shall continue, notwithstanding termination of the Lease, until Lessee returns the Premises to Lessor as provided in Paragraph 15 of the Lease SURRENDER OF POSSESSION – RESTORATION OF PREMISES. However, Lessee shall have no right during any such rental continuation period to use or occupy the Premises for any purpose other than removing improvements and restoring the Premises.

Nothing in this provision shall be construed as extending the term of the Lease or as waiving in any way Lessor's right to terminate the Lease as provided therein.

This Supplemental Agreement shall run concurrently with and be governed by all the terms and provisions of said June 1, 1975 Agreement, except as same are hereby supplemented, modified or amended, as fully and completely and to the same extent as though the same were incorporated herein.

5. Section 13 of the Lease ENVIRONMENTAL PROTECTION CLAUSE is stricken in its entirety and replaced with the following:

13. Lessee in its use, occupancy and possession of the Premises shall comply with all applicable Federal, state and local laws, ordinances, rules, regulations, and requirements, including (by way of illustration only and not by way of limitation) any governmental authority or court controlling environmental standards and conditions on the Premises, and shall furnish satisfactory evidence of such compliance upon request by Lessor. **IF, AS A RESULT OF LESSEE'S USE, OCCUPANCY OR POSSESSION OF THE PREMISES, ANY SUCH LAWS, ORDINANCES, RULES, REGULATIONS, AND REQUIREMENTS ARE VIOLATED, OR IF, AS A RESULT OF LESSEE'S USE, OCCUPANCY OR POSSESSION OF THE PREMISES, ANY HAZARDOUS OR TOXIC WASTES, MATERIALS OR SUBSTANCES (AS SUCH WORDS ARE DEFINED BY ANY FEDERAL, STATE OR LOCAL LAW, ORDINANCE, RULE, REGULATION, OR REQUIREMENT) SHOULD ENTER, BE RELEASED FROM,**

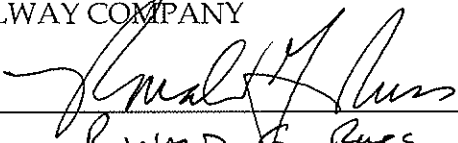
OR OTHERWISE AFFECT ANY PART OF THE PREMISES (INCLUDING SURFACE, SUBSURFACE, AIRBORNE AND/OR GROUND CONTAMINATION), THEN LESSEE SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS LESSOR FROM AND AGAINST ALL PENALTIES, COSTS (INCLUDING BUT NOT LIMITED TO RESPONSE, REMEDIAL, REMOVAL AND CLEANUP COSTS, LEGAL FEES, AND COURT COSTS), FINES, CORRECTIVE ACTION, NATURAL RESOURCE DAMAGE, AND DAMAGES AND EXPENSES OF ANY OTHER NATURE WHATSOEVER THREATENED AGAINST, IMPOSED ON OR INCURRED BY LESSOR.

6. The parties acknowledge and reaffirm their rights and obligations concerning liability and indemnity contained in Sections 8, 11 and 13.

7. The parties agree that the Lease is to be deemed executed and delivered in the State in which the Leased Premises are located and shall be construed and interpreted in accordance with the laws of said State.

IN WITNESS WHEREOF, the parties hereto have executed this Supplemental Agreement in duplicate as of the dates below indicated.

THE KANSAS CITY SOUTHERN
RAILWAY COMPANY

By 
Name: RONALD G. RUSS
Title: EVPT CFO
Date: 2/24/05

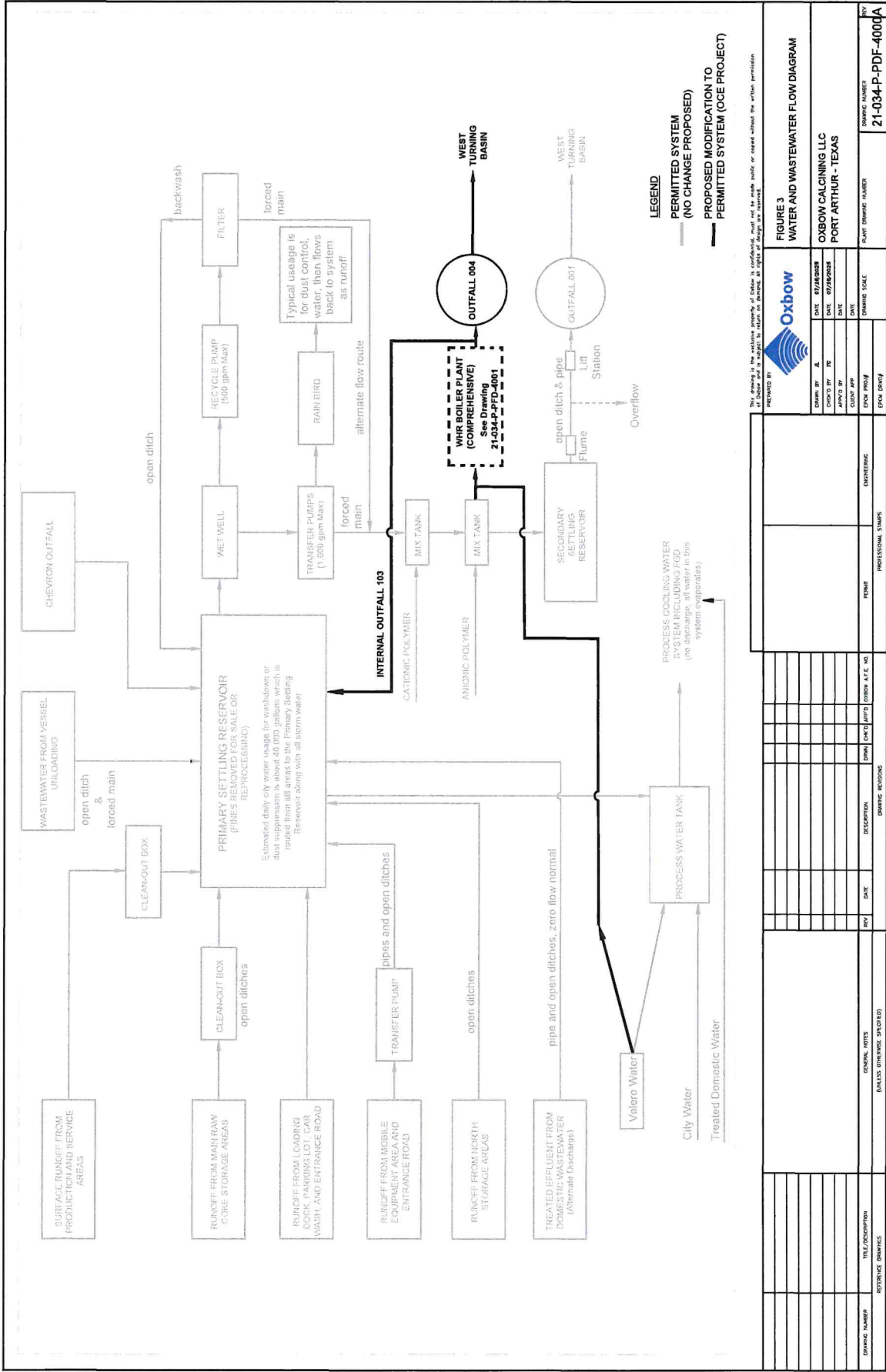
GREAT LAKES CARBON LLC

By 
Name: A. FRANK BAREA
Title: Sr VP Operations
Date: 2/22/05

Approved:

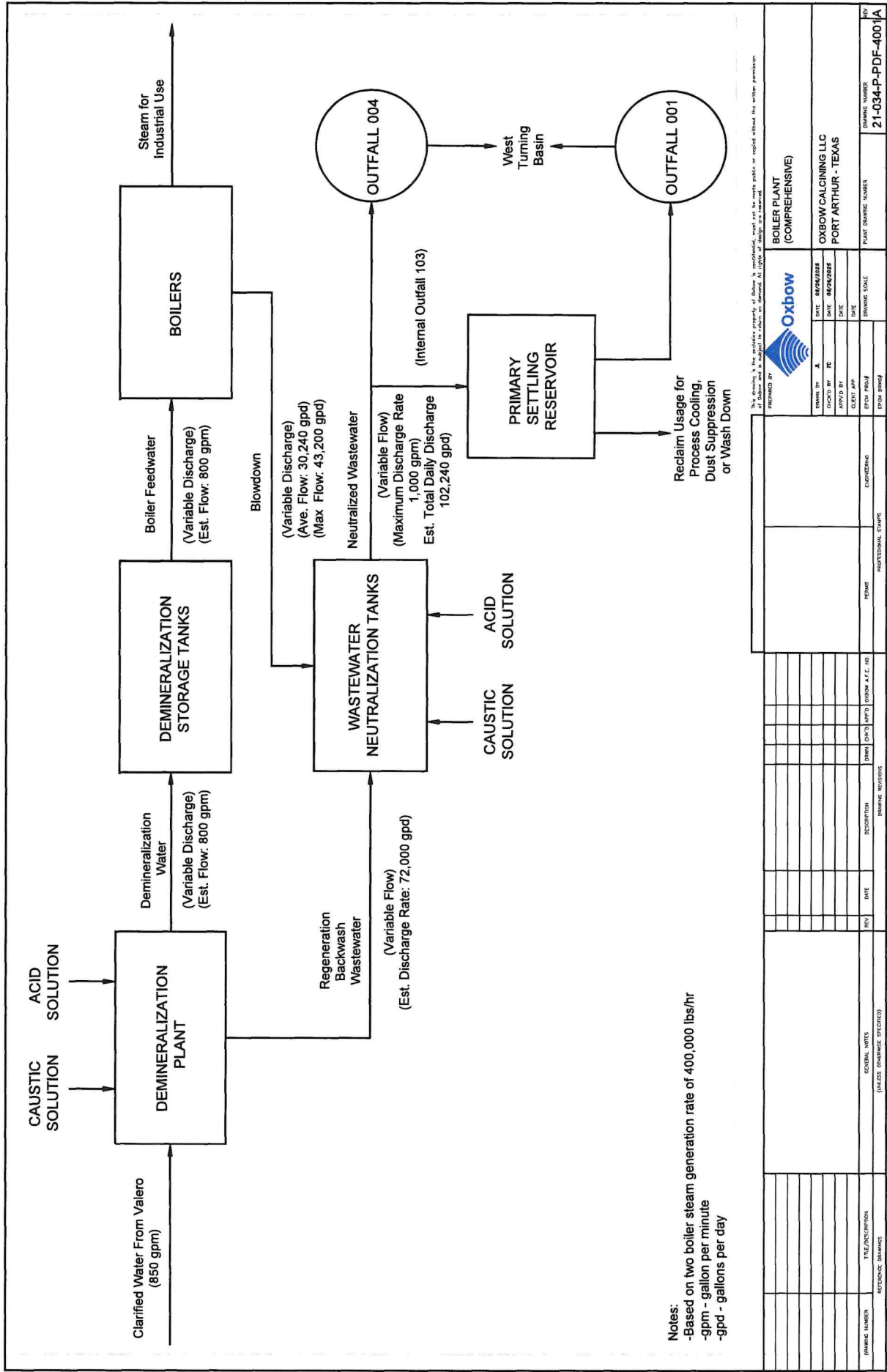
Thomas J. Healey 02-09-05
Associate General Counsel

ATTACHMENT T-2



10. The project is the exclusive property of Oxbow. It is confidential, and not to be made public or copied without the written permission of Oxbow and is subject to change without notice.

DRAWING NUMBER		DRAWING NAME		DRAWING SCALE		DRAWING NUMBER	
21-034-P-PDF-4001A		OXBOW CALCINING LLC PORT ARTHUR - TEXAS					
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Leah Whallon

From: Darlijo Smith <Darla.Smith@oxbow.com>
Sent: Wednesday, November 12, 2025 2:35 PM
To: Leah Whallon
Cc: Mario Farrulla
Subject: RE: Application to Amend Permit No. WQ0001994000; Oxbow Calcining LLC
Attachments: Industrial Discharge Amendment Spanish NORI.rev.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Ms. Whallon,

Please find attached our response to your request dated 10.30.2025.

1. The updated Nori language is below

APPLICATION. Oxbow Calcining LLC, P.O. Box C, Port Arthur, Texas 77641, which owns the Oxbow Calcining facility, which produces calcined petroleum coke, has applied to the Texas Commission on Environmental Quality (TCEQ) to amend Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0001994000 (EPA I.D. No. TX0068781) to authorize the addition of Outfall 004 to discharge treated wastewater at an intermittent and flow-variable volume (pending response) and modify the permitted discharge through Outfall 001 (pending response). The facility is located at 3901 Coke Dock Road, in the city of Port Arthur, Jefferson County, Texas 77640. The discharge route is from the plant site via Outfall 001 to West Turning Basin, thence to Sabine-Neches Canal Tidal and via Outfall 004 via pipe to West Turning Basin, thence to Sabine-Neches Canal Tidal (pending RWA). TCEQ received this application on October 22, 2025. The permit application will be available for viewing and copying at Port Arthur Public Library, 4615 9th Avenue, Port Arthur, in Jefferson County, Texas prior to the date this notice is published in the newspaper.

2. Spanish language public notice is attached

Please let me know if you have any questions

Best regards,

DARLA SMITH, P.E.
Environmental Manager
Oxbow Calcining LLC- Port Arthur, TX
C: 409.332.6271

From: Leah Whallon <Leah.Whallon@Tceq.Texas.Gov>
Sent: Thursday, October 30, 2025 2:07 PM
To: Darlijo Smith <Darla.Smith@oxbow.com>
Cc: Mario Farrulla <Mario.Farrulla@OXBOW.COM>
Subject: Application to Amend Permit No. WQ0001994000; Oxbow Calcining LLC

[external email-use caution]

Good Afternoon,

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

Please let me know if you have any questions.

Thank you,



Leah Whallon

Texas Commission on Environmental Quality

Water Quality Division

512-239-0084

leah.whallon@tceq.texas.gov

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

Attention: This email was sent from outside the company. Please use caution when opening attachments or clicking on links that are unexpected or arrive from unknown senders.

Comisión de Calidad Ambiental del Estado de Texas



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

PERMISO NO. WQ0001994000_

SOLICITUD. *Oxbow Calcining LLC, (CN 602552424) P.O. Box C, Port Arthur, Texas 77641, que produce coque de petróleo calcinado, ha solicitado a la Comisión de Calidad Ambiental de Texas (TCEQ) para modificar el Permiso No. WQ0001994000 (EPA I.D. No. TX00068781) del Sistema de Eliminación de Descargas de Contaminantes de Texas (TPDES) para autorizar la adición del Emisario 004 para descargar aguas residuales tratadas a un volumen intermitente y variable (respuesta pendiente) y modificar la descarga permitida a través del Emisario 001 (respuesta pendiente). La planta está ubicada en 3901 Coke Dock Road, Port Arthur en el Condado de Jefferson, Texas 77640. La ruta de descarga es del sitio de la planta a través del Emisario 001 hasta el West Turning Basin y al canal de mareas Sabine-Neches (pendiente evaluación de aguas receptoras) y a través del Emisario 004 por tubería hasta el West Turning Basin y al canal de mareas Sabine-Neches (pendiente evaluación de aguas receptoras). La TCEQ recibió esta solicitud el 22 de octubre de 2025. La solicitud para el permiso estará disponible para leerla y copiarla en la Biblioteca Pública de Port Arthur, 4615 9th Street, Port Arthur, Condado de Jefferson antes de la fecha de publicación de este aviso en el periódico. La solicitud está disponible para su visualización y copia en la siguiente página web:*

<https://www.tceq.texas.gov/permitting/wastewater/pending-permits/tpdes-applications>. Este enlace a un mapa electrónico de la ubicación general del sitio o de la instalación es proporcionado como una cortesía y no es parte de la solicitud o del aviso. Para la ubicación exacta, consulte la solicitud.
<https://gisweb.tceq.texas.gov/LocationMapper/?marker=-93.962222,29.833888&level=18>

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

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

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

a lo largo del condado que desean recibir los avisos y los que están en la lista de correo que desean recibir avisos de esta solicitud. El aviso dará la fecha límite para someter comentarios públicos.

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

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

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

Después del cierre de todos los períodos de comentarios y de petición que aplican, el Director Ejecutivo enviará la solicitud y cualquier petición para reconsideración o para una audiencia de caso impugnado a los Comisionados de la TCEQ para su consideración durante una reunión programada de la Comisión.

La Comisión sólo puede conceder una solicitud de una audiencia de caso impugnado sobre los temas que el solicitante haya presentado en sus comentarios oportunos que no fueron retirados posteriormente. **Si se concede una audiencia, el tema de la audiencia estará limitado a cuestiones de hecho en disputa o cuestiones mixtas de hecho y de derecho**

relacionadas a intereses pertinentes y materiales de calidad del agua que se hayan presentado durante el período de comentarios.

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

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

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

También se puede obtener información adicional de Oxbow Calcining LLC a la dirección indicada arriba o llamando a Darla Smith, Gerente Ambiental, al 409-332-6271.

Fecha de emisión: *[pendiente]*