Jon Niermann, *Chairman* Emily Lindley, *Commissioner* Bobby Janecka, *Commissioner* Toby Baker, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

September 19, 2022

Laurie Gharis Texas Commission on Environmental Quality Office of the Chief Clerk, MC-105 P.O. Box 13087 Austin, Texas 78711-3087

Re: Application by City of Bryan TPDES No. WQ0015930001 TCEQ Docket No. 2022-0610-MWD

Dear Ms. Gharis:

I have enclosed the following copies of documents to be included in the Administrative Record for the above-referenced case as required by 30 Tex. Admin Code § 80.118. The documents included are as follows:

- The ED's Response to Hearing Request
- Draft Permit No. WQ0015930001
- The ED's Technical Memos (includes fact sheet, the ED's Preliminary decision, and Compliance History Report)

Sincerely,

Aubrey Pawella

Aubrey Pawelka Staff Attorney Environmental Law Division

DOCKET NO. 2022-0610-MWD

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APPLICATION BY CITY OF BRYAN FOR NEW TPDES PERMIT NO. WQ0015930001

BEFORE THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

EXECUTIVE DIRECTOR'S RESPONSE TO HEARING REQUEST

I. <u>Introduction</u>

The Executive Director of the Texas Commission on Environmental Quality (TCEQ or Commission) files this Response to Hearing Request (Response) on the application by City of Bryan (Applicant) seeking a new Texas Pollutant Discharge Elimination System (TPDES) Permit Number WQ0015930001 and the Executive Director's preliminary decision. The Office of the Chief Clerk received contested case hearing requests from David and Margaret Hyden, Neil Ryan Gallagher, Jenny Gallagher, Anne Cecile Daleon, Mary Louise Sims, Kenneth D. Davis, Georgianne Ku, Glynda Bricker, and Bobbie Meyer.

Attached for Commission consideration is a satellite map of the area.

II. <u>Description of Facility</u>

The City of Bryan has applied for a new Texas Pollutant Discharge Elimination System Permit No. WQ0015930001 to authorize the discharge of treated domestic wastewater at an annual average flow not to exceed 6,000,000 gallons per day in the Interim phase and an annual average flow not to exceed 12,000,000 gallons per day in the Final phase.

The facility will be located approximately 1,400 feet northeast of the intersection of Australia Lane and Cole Lane, in Brazos County, Texas 77845. The treated effluent will be discharged to Brushy Creek, thence to Wickson Creek, thence to the Navasota River Below Lake Limestone in Segment No. 1209 of the Brazos River Basin. The unclassified receiving water uses are limited aquatic life use for Brushy Creek and presumed high aquatic life use for Wickson Creek. The designated uses for Segment No. 1209 are primary contact recreation, public water supply, and high aquatic life use.

In accordance with 30 Texas Administrative Code § 307.5 and the TCEQ's Procedures to Implement the Texas Surface Water Quality Standards (June 2010), an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Wickson Creek, which has been identified as having a presumed high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

III. <u>Procedural Background</u>

TCEQ received the application for a new TPDES permit on September 25, 2020, and declared it administratively complete on January 14, 2021. The Applicant published the Notice of Receipt and Intent to Obtain a Water Quality Permit (NORI) in English on January 20, 2021, in *The Eagle* and in Spanish on January 22, 2021 in *La Voz Hispana*. The application was determined to be technically complete on May 21, 2021. The Applicant published the Notice of Application and Preliminary Decision (NAPD) in English on September 9, 2021 in *The Eagle*, and in Spanish on September 10, 2021 in *La Voz Hispana*. The public comment period ended on January 20, 2022.

This application was filed on or after February 12, 2019; therefore, this application is subject to the procedural requirements adopted pursuant to House Bill (HB) 801, 76th Legislature (1999), and Senate Bill (SB) 709, 84th Legislature (2015), both implemented by the Commission in its rules in 30 TAC Chapter 39, 50, and 55. The Texas Legislature enacted Senate Bill 709, effective September 1, 2015, amending the requirements for comments and contested case hearings. This application is subject to those changes in the law.

IV. <u>The Evaluation Process for Hearing Requests</u>

House Bill 801 established statutory procedures for public participation in certain environmental permitting proceedings, specifically regarding public notice and public comment and the Commission's consideration of hearing requests. Senate Bill 709 revised the requirements for submitting public comment and the Commission's consideration of hearing requests. The evaluation process for hearing requests is as follows:

A. Response to Requests

The Executive Director, the Public Interest Counsel, and the Applicant may each submit written responses to hearing requests. 30 TAC § 55.209(d).

Responses to hearing requests must specifically address:

whether the requestor is an affected person;

which issues raised in the hearing request are disputed;

whether the dispute involves questions of fact or of law;

whether the issues were raised during the public comment period;

whether the hearing request is based on issues raised solely in a public comment withdrawn by the commenter in writing by filing a withdrawal letter with the chief clerk prior to the filing of the Executive Director's Response to Comment;

whether the issues are relevant and material to the decision on the application; and

a maximum expected duration for the contested case hearing.

30 TAC § 55.209(c).

B. Hearing Request Requirements

In order for the Commission to consider a hearing request, the Commission must first determine whether the request meets certain requirements:

> Affected persons may request a contested case hearing. The request must be made in writing and timely filed with the chief clerk. The request must be based only on the requestor's timely comments and may not be based on an issue that was raised solely in a public comment that was withdrawn by the requestor prior to the filing of the Executive Director's Response to Comment.

30 TAC § 55.201(c).

A hearing request must substantially comply with the following:

give the name, address, daytime telephone number, and where possible, fax number of the person who files the request. If the request is made by a group or association, the request must identify one person by name, address, daytime telephone number, and where possible, fax number, who shall be responsible for receiving all official communications and documents for the group;

identify the person's personal justiciable interest affected by the application, including a brief, but specific, written statement explaining in plain language the requestor's location and distance relative to the proposed facility or activity that is the subject of the application and how and why the requestor believes he or she will be adversely affected by the proposed facility or activity in a manner not common to members of the general public;

request a contested case hearing; and

list all relevant and material disputed issues of fact that were raised during the public comment period and that are the basis of the hearing request. To facilitate the Commission's determination of the number and scope of issues to be referred to hearing, the requestor should, to the extent possible, specify any of the Executive Director's responses to comments that the requestor disputes and the factual basis of the dispute and list any disputed issues of law; and provide any other information specified in the public notice of application.

30 TAC § 55.201(d).

C. Requirement that Requestor be an Affected Person/"Affected Person" Status

In order to grant a contested case hearing, the Commission must determine that a requestor is an "affected" person. 30 TAC § 55.203 sets out who may be considered an affected person. For any application, an affected person is one who has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application. An interest common to members of the general public does not qualify as a personal justiciable interest. Except as provided by 30 TAC § 55.103, governmental entities, including local governments and public agencies with authority under state law over issues raised by the application may be considered affected persons.

In determining whether a person is an affected person, all factors shall be

considered, including, but not limited to, the following:

whether the interest claimed is one protected by the law under which the application will be considered;

distance restrictions or other limitations imposed by law on the affected interest;

whether a reasonable relationship exists between the interest claimed and the activity regulated;

likely impact of the regulated activity on the health and safety of the person, and on the use of property of the person;

likely impact of the regulated activity on use of the impacted natural resource by the person;

whether the requestor timely submitted comments on the application which were not withdrawn; and

for governmental entities, their statutory authority over or interest in the issues relevant to the application.

30 TAC § 55.203.

In making affected person determinations, the commission may also consider, to the extent consistent with case law:

the merits of the underlying application and supporting documentation in the commission's administrative record, including whether the application meets the requirements for permit issuance;

the analysis and opinions of the Executive Director; and

any other expert reports, affidavits, opinions, or data submitted by the Executive Director, the applicant, or hearing requestor.

30 TAC § 55.203(d).

D. Referral to the State Office of Administrative Hearings

"When the Commission grants a request for a contested case hearing, the commission shall issue an order specifying the number and scope of the issues to be referred to SOAH for a hearing." 30 TAC § 50.115(b). The Commission may not refer an issue to SOAH for a contested case hearing unless the Commission determines that the issue:

involves a disputed question of fact or a mixed question of law and fact;

was raised during the public comment period by an affected person whose hearing request is granted; and

is relevant and material to the decision on the application.

30 TAC § 50.115(c).

V. <u>Analysis of Hearing Requests</u>

The Executive Director has analyzed the hearing request to determine whether it complies with Commission rules, if the requestor qualifies as an affected person, what issues may be referred for a contested case hearing, and what is the appropriate length of the hearing.

A. Whether the Hearing Requests Complied with Section 55.201(c) and (d).

David and Margaret Gail Hyden, Neil Ryan Gallagher, Jenny Gallagher, Anne Cecile Daleon, Mary Louise Sims, Glynda Bricker, and Bobbie Meyer submitted timely hearing requests that raised issues presented during the public comment period that have not been withdrawn. They provided their names, addresses, email addresses, and requested a public hearing. They identified themselves as persons with what they believed to be personal justiciable interests affected by the application, which will be discussed in greater detail below, and provided a list of disputed issues of fact they raised during the public comment period. Therefore, the Executive Director concludes that the hearing requests of David and Margaret Gail Hyden, Neil Ryan Gallagher, Jenny Gallagher, Anne Cecile Daleon, Mary Louis Sims, Glynda Bricker, and Bobbie Meyer substantially comply with the section 55.201(c) and (d) requirements.

Kenneth D. Davis and Georgianne Ku also submitted hearing requests. However, they did not identify personal justiciable interests affected by the application. The Executive Director concludes that the hearing requests of Kenneth D. Davis and Georgianne Ku fail to comply with the section 55.201(c) and (d) requirements.

1. David and Margaret Hyden

According to the information provided by David and Margaret Hyden, their property surrounds the City's tract. Additionally, the Hyden's are listed on the affected landowner's list. They raised concerns about how the proposed discharge will affect the water level of Brushy Creek, flooding, whether they will have access to their property, interference with their use and enjoyment of their property, contamination of water wells and groundwater, nuisance odor, the location of the site in the 100 year floodplain, antidegradation, and whether the wastewater treatment plant or the requested discharge volume should be denied or altered in consideration of need for the facility. Contamination of groundwater and wells, interference with use and enjoyment of property, nuisance odor, and antidegradation are issues that are protected by the laws under which the application will be considered. Thus, based on the location of their property and the issues raised, David and Margaret Hyden have demonstrated they have a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application not common to members of the general public and are affected persons.¹

<u>The Executive Director recommends the Commission find that David and</u> <u>Margaret Hyden are affected persons. The Hyden's raised issues 1-5, 11-12 in their</u> <u>hearing request.</u>

¹ *Id.* § 55.203(a); *see also id.* § 55.211(c)(2) (addressing hearing requests from affected persons that will be granted).

2. Neil Ryan Gallagher

According to the information provided by Neil Ryan Gallagher, his property is located directly across from the proposed facility location. He raises concerns such as human health and safety, airborne hazards, and airborne pests. Human health and safety, and control of vectors are issues that are protected by the laws under which the application will be considered. Thus, based on the location of his property and the issues raised, Neil Ryan Gallagher has demonstrated that he has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application not common to members of the general public and is an affected person.²

<u>The Executive Director recommends the Commission find that Neil Ryan</u> <u>Gallagher is an affected person. Neil Ryan Gallagher raised issues 6, and 8-9 in his</u> <u>hearing request.</u>

3. Jenny Gallagher

According to the information provided by Jenny Gallagher, her property is directly across the street from the proposed facility location. She raises concerns such as human health and safety, harm to animal life, airborne hazards caused by fumes, gases, and bacteria, airborne pests, and flooding. Human health and safety, effects on wildlife, and control of vectors are issues that are protected by the laws under which the application will be considered. Thus, based on the location of her property and the issues raised Jenny Gallagher has demonstrated that she has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application not common to members of the general public and is an affected person.³

<u>The Executive Director recommends the Commission find that Jenny Gallagher</u> is an affected person. Jenny Gallagher raised issues 6-8, and 11 in her hearing request.

4. Anne Cecile Daleon

According to the information provided by Ms. Daleon, her property is directly across Cole Lane from the proposed facility. She raises concerns about air quality, use and enjoyment of her property, water quality, and harm to wildlife. Ms. Daleon's concerns about water quality, and harm to wildlife are issues that are protected by the law under which the application will be considered and thus are referrable.⁴ Due to her proximity to the facility and the issues raised, Ms. Daleon has demonstrated that she has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application not common to members of the general public and is an affected person.⁵

<u>The Executive Director recommends the Commission find that Ms. Daleon is an</u> <u>affected person. Anne Cecile Daleon raised issues 1-2, and 10 in her hearing request.</u>

² *Id.* § 55.203(a); *see also id.* § 55.211(c)(2) (addressing hearing requests from affected persons that will be granted).

³ *Id.* § 55.203(a); *see also id.* § 55.211(c)(2) (addressing hearing requests from affected persons that will be granted).

⁴ *Id.* § 55.203(3)(e).

⁵ *Id.* § 55.203(a); *see also id.* § 55.211(c)(2).

5. Mary Louise Sims

According to the information provided by Ms. Sims, her property is 50 feet from the City's property. She raised concerns about flooding, erosion, and water quality of wells. Ms. Sims concern about water quality is affected by the law under which the application will be considered and thus is referrable.⁶ Therefore, based on the location of her property and the issues raised, Ms. Sims has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application not common to members of the general public and is an affected person.⁷

<u>The Executive Director recommends the Commission find that Ms. Sims is an</u> <u>affected person. Mary Louise Sims raised issues 1, 11, and 13 in her hearing request.</u>

6. Glynda Bricker

According to the information provided by Ms. Bricker, her property is located approximately 1 mile from the proposed facility. Glynda Bricker submitted a hearing request that raises concerns about odor, chemicals, erosion, stress to wildlife, and damage to personal property. Ms. Bricker's concern about odor is protected by the law under which the application will be considered and is referrable. Due to her proximity to the facility and the issue raised, Ms. Bricker has demonstrated that she has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application not common to members of the general public and is an affected person.⁸

<u>The Executive Director recommends the Commission find that Glynda Bricker is</u> <u>an affected person. Glynda Bricker raised issue 4 in her hearing request.</u>

7. Bobbie Meyer

According to the information provided by Bobbie Meyer, her property is located approximately 0.75 miles from the proposed facility. Ms. Meyer submitted a hearing request that raises the issue of odor. Ms. Meyer's concern about odor is protected by the law under which the application will be considered and is referrable. Due to her proximity to the facility and the issue raised, Ms. Meyer has demonstrated that she has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application not common to members of the general public and is an affected person.⁹

<u>The Executive Director recommends the Commission find that Bobbie Meyer is</u> <u>an affected person. Bobbie Meyer raised issue 4 in her hearing request.</u>

8. Kenneth D. Davis

According to the information provided by Kenneth D. Davis, his property is within 2,500 feet of the proposed facility. However, Mr. Davis has not shown that he has a personal justiciable interest. The concerns he raises such as pollution and floodplain displacement are either too general to show that they are relevant and

⁶ Id. § 55.203(3)(e).

⁷ *Id.* § 55.203(a); *see also id.* § 55.211(c)(2).

⁸ *Id.* § 55.203(a); *see also id.* § 55.211(c)(2).

⁹ *Id.* § 55.203(a); *see also id.* § 55.211(c)(2).

material to the application or are issues common to the general public. Thus, the ED recommends denial of his hearing request.

<u>The Executive Director recommends the Commission find that Kenneth D. Davis</u> <u>is not an affected person.</u>

9. Georgianne Ku

According to the information provided by Ms. Ku, she lives in the state of Washington. Based on her provided location, Ms. Ku has not demonstrated how she has a personal justiciable interest related to a legal right, duty, privilege, power, or economic interest affected by the application not common to members of the general public.¹⁰

<u>The Executive Director recommends the Commission find that Georgianne Ku is</u> not an affected person.

B. Whether Issues Raised Are Referable to SOAH for a Contested Case.

The following issues were raised during the public comment period:

1. Whether the draft permit contains adequate provisions to protect water quality, including the water quality in creeks and groundwater. (RTC Response Nos. 6, 7, 8, 14, 15, 20, 25, 27).

The issue involves a disputed question of mixed fact and law, was raised during the comment period, was not withdrawn, and is relevant and material to the issuance of the draft permit. If it can be shown the draft permit does not provide sufficient controls to protect water quality, that information would be relevant and material to a decision on the application. <u>The Executive Director recommends referring this issue to SOAH.</u>

2. Whether the permit will be protective of the use and enjoyment of private property. (RTC Response No. 4, 11).

The issue involves a disputed question of mixed fact and law, was raised during the comment period, was not withdrawn, and is relevant and material to the issuance of the draft permit. If it can be shown the draft permit might interfere with the use and enjoyment of private property, that information would be relevant and material to a decision on the application. <u>The Executive Director recommends referring this issue to SOAH.</u>

3. Whether the Commission should deny or alter the terms and conditions of the draft permit based on the consideration of need under Texas Water Code § 26.0282. (RTC Response No. 22).

The issue involves a disputed question of mixed fact and law, was raised during the comment period, was not withdrawn, and is relevant and material to the issuance of the draft permit. If it can be shown the draft permit does not substantially comply with Texas Water Code § 26.0282, that information would be

¹⁰ *Id.* § 55.203(a); *see also id.* § 55.211(c)(2).

relevant and material to a decision on the application. <u>The Executive Director</u> <u>recommends referring this issue to SOAH.</u>

4. Whether the draft permit complies with the TCEQ rules regarding nuisance odor. (RTC Response No. 16).

The issue involves a disputed question of mixed fact and law, was raised during the comment period, was not withdrawn, and is relevant and material to the issuance of the draft permit. If it can be shown the draft permit does not comply with the TCEQ's rules regarding control of nuisance odor, that information would be relevant and material to a decision on the application. <u>The Executive Director recommends referring this issue to SOAH.</u>

5. Whether the draft permit complied with the TCEQ's antidegradation policy. (RTC Response No. 21).

The issue involves a disputed question of mixed fact and law, was raised during the comment period, was not withdrawn, and is relevant and material to the issuance of the draft permit. If it can be shown the draft permit does not comply with the TCEQ's antidegradation policy, that information would be relevant and material to a decision on the application. <u>The Executive Director recommends referring this issue to SOAH.</u>

6. Whether the draft permit is protective of human health and safety. (RTC Response No. 8).

The issue involves a disputed question of mixed fact and law, was raised during the comment period, was not withdrawn, and is relevant and material to the issuance of the draft permit. If it can be shown the draft permit is not drafted to be protective of human health and safety, that information would be relevant and material to a decision on the application. <u>The Executive Director recommends referring this issue to SOAH.</u>

7. Whether the draft permit is protective of animal life. (RTC Response No. 13).

The issue involves a disputed question of mixed fact and law, was raised during the comment period, was not withdrawn, and is relevant and material to the issuance of the draft permit. If it can be shown the draft permit is not drafted to be protective of animal life, that information would be relevant and material to a decision on the application. <u>The Executive Director recommends referring this issue to SOAH.</u>

8. Whether the draft permit complies with TCEQ's rules regarding control of vectors. (RTC Response Nos. 4, 18).

The issue involves a disputed question of mixed fact and law, was raised during the comment period, was not withdrawn, and is relevant and material to the issuance of the draft permit. If it can be shown the draft permit does not comply with the TCEQ's rules regarding the control of vectors, that information would be relevant and material to a decision on the application. <u>The Executive Director recommends referring this issue to SOAH.</u>

9. Whether the draft permit is drafted to limit airborne hazards resulting from fumes, gas, and bacteria. (RTC Response No. 8).

The issue involves a disputed question of mixed fact and law, however, it is not relevant and material to a decision on the application. <u>The Executive Director does</u> <u>NOT recommend referring this issue to SOAH.</u>

10. Whether the draft permit is protective of air quality. (RTC Response No. 8, 27).

The issue involves a disputed question of mixed fact and law, however, it is not relevant and material to a decision on the application. <u>The Executive Director does</u> <u>NOT recommend referring this issue to SOAH.</u>

11. Whether the draft permit will contribute to flooding. (RTC Response No. 4, 20).

This is an issue of fact. However, it is not relevant and material to a decision on the application, as the TCEQ does not have jurisdiction over flooding. <u>The Executive Director does NOT recommend referring this issue to SOAH.</u>

12. Whether the draft permit will contribute to rising water levels in the creek. (RTC Response No. 3).

This is an issue of fact. However, it is not relevant and material to a decision on the application, as the TCEQ does not have jurisdiction over water levels. <u>The Executive Director does NOT recommend referring this issue to SOAH.</u>

13. Whether the draft permit will contribute to erosion. (RTC Response No. 17).

This is an issue of fact. However, it is not relevant and material to a decision on the application, as the TCEQ does not have jurisdiction over erosion. <u>The Executive Director does NOT recommend referring this issue to SOAH.</u>

VI. Analysis of Request for Reconsideration

The Chief Clerk received one timely request for reconsideration (RFR) by Jamie Overton. As required by 30 Texas Administrative Code § 55.201(d), Ms. Overton gave her request in writing and specifically requested reconsideration of the ED's decision on the Selinger application. Ms. Overton provided her name, address, and daytime telephone number.

The issues that Ms. Overton brought up included impacts on the environment and endangered species, and the location of the proposed facility. Impact on endangered species is a new issue, however, TPWD rather than TCEQ has jurisdiction over endangered species. The RFR did not present any new information not already considered by the ED during the permitting process. Therefore, the ED recommends denial of the RFR.

VII. <u>Contested Case Hearing Duration</u>

If there is a contested case hearing on this application, the Executive Director recommends that the duration of the hearing be 180 days from the preliminary hearing to the presentation of a Proposal for Decision to the Commission.

VIII. <u>Conclusion</u>

The Executive Director recommends the following actions by the Commission:

Find David and Margaret Hyden, Neil Ryan Gallagher, Jenny Gallagher, Anne Cecile Daleon, Mary Louise Sims, Glynda Bricker, and Bobbie Meyer as affected persons and grant their hearing requests;

Refer the following issues to SOAH:

Issue 1. Whether the draft permit contains adequate provisions to protect water quality, including the water quality in creeks and groundwater.

Issue 2. Whether the draft permit will be protective of the use and enjoyment of private property.

Issue 3. Whether the Commission should deny or alter the terms and conditions of the draft permit based on the consideration of need under Texas Water Code § 26.0282.

Issue 4. Whether the draft permit complies with the TCEQ's requirements regarding nuisance odor.

Issue 5. Whether the draft permit complies with the TCEQ's antidegradation policy.

Issue 6. Whether the draft permit is protective of human health and safety.

Issue 7. Whether the draft permit is protective of animal life.

Issue 8. Whether the draft permit complies with the TCEQ's requirements regarding the control of vectors.

Find Kenneth D. Davis and Georgianne Ku are not affected persons and deny their hearing requests.

Respectfully submitted,

Texas Commission on Environmental Quality

Toby Baker Executive Director

Erin. E. Chancellor, Deputy Director Environmental Law Division

Charmaine Backens, Deputy Director Environmental Law Division

Aubrey Pawella

Aubrey Pawelka, Staff Attorney Environmental Law Division State Bar No. 24121770 P.O. Box 13087, MC 173 Austin, Texas 78711-3087 Phone: (512) 239-0622 Fax: (512) 239-0606

REPRESENTING THE EXECUTIVE DIRECTOR OF THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

IX. <u>CERTIFICATE OF SERVICE</u>

I certify that on June 6, 2022, the "Executive Director's Response to Hearing Request" for new TPDES Permit No. WQ0015930001 by City of Bryan was filed with the TCEQ's Office of the Chief Clerk, and a copy was served to all persons listed on the attached mailing list via hand delivery, facsimile transmission, inter-agency mail, electronic submittal, or by deposit in the U.S. Mail.

Untrey Pawella

Aubrey Pawelka, Staff Attorney Environmental Law Division State Bar No. 24121770 P.O. Box 13087, MC 173 Austin, Texas 78711-3087 Phone (512) 239-0622 Fax: (512) 239-0606

MAILING LIST CITY OF BRYAN DOCKET NO. 2022-0610-MWD; PERMIT NO. WQ0015930001

FOR THE APPLICANT:

via electronic mail:

Kean Register, City Manager City of Bryan P.O. Box 1000 Bryan, Texas 77805 Tel: (979) 209-5100 Fax: (979) 209-5106 <u>kregister@bryantx.gov</u>

Jayson Barfknecht, Ph.D., P.E Director of Public Works City of Bryan Public Works 1111 Waco Street Bryan, Texas 77803 Tel: (979) 209-5900 jbarfknecht@bryantx.gov

Allen Woelke, P.E., Vice President CDM Smith 9430 Research Boulevard, Suite 1-200 Austin, Texas 78759 Tel: (512) 265-5331 woelkead@cdmsmith.com

FOR THE EXECUTIVE DIRECTOR via electronic mail:

Aubrey Pawelka, Staff Attorney Texas Commission on Environmental Quality Environmental Law Division, MC-173 P.O. Box 13087 Austin, Texas 78711 Tel: (512) 239-0622 Fax: (512) 239-0606 aubrey.pawelka@tceq.texas.gov

Gordon Cooper, Technical Staff Texas Commission on Environmental Quality Water Quality Division, MC-148 P.O. Box 3087 Austin, Texas 78711 Tel: (512) 239-1963 Fax: (512) 239-4430 gordon.cooper@tceq.texas.gov Ryan Vise, Deputy Director Texas Commission on Environmental Quality External Relations Division Public Education Program, MC-108 P.O. Box 13087 Austin, Texas 78711 Tel: (512) 239-4000 Fax: (512) 239-5678 pep@tceq.texas.gov

FOR PUBLIC INTEREST COUNSEL

via electronic mail:

Vic McWherter, Public Interest Counsel Texas Commission on Environmental Quality Public Interest Counsel, MC-103 P.O. Box 13087 Austin, Texas 78711 Tel: (512) 239-6363 Fax: (512) 239-6377 vic.mcwherter@tceq.texas.gov

FOR ALTERNATIVE DISPUTE RESOLUTION via electronic mail:

Kyle Lucas Texas Commission on Environmental Quality Alternative Dispute Resolution, MC-222 P.O. Box 13087 Austin, Texas 78711 Tel: (512) 239-0687 Fax: (512) 239-4015 kyle.lucas@tceq.texas.gov

FOR THE CHIEF CLERK:

Docket Clerk Texas Commission on Environmental Quality Office of Chief Clerk, MC-105 P.O. Box 13087 Austin, Texas 78711 Tel: (512) 239-3300 Fax: (512) 239-3311 www.tceq.texas.gov/goto/efilings

REQUESTER(S)/INTERESTED PERSONS See attached list

REQUESTER(S)

Glynda Bricker 5036 Enchanted Oaks Dr College Station, TX 77845-7652

Anne Cecile Daleon 5695 Cole Ln College Station, TX 77845-7612

Kenneth D Davis 11455 Deer Creek Dr College Station, TX 77845-7626

Adam M Friedman McElroy Sullivan Miller & Weber LLP 1201 Spyglass Dr Ste 200 Austin, TX 78746-6925

Adam M Friedman McElroy Sullivan Miller & Weber LLP PO Box 12127 Austin, TX 78711-2127

Jenny Gallagher 5663 Cole Ln College Station, TX 77845-7612

Neil Ryan Gallagher 5663 Cole Ln College Station, TX 77845-7612

Georgianne Sims Ku 14040 168Th Ave Ne Woodinville, WA 98072-9027

Bobbie Meyer 5445 Cole Ln College Station, TX 77845-7614

Jamie Overton 4711 Enchanted Oaks Dr College Station, TX 77845-4831

Mary Louise Sims 5565 Cole Ln College Station, TX 77845-7613

PUBLIC OFFICIALS - INTERESTED PERSON(S)

The Honorable Kyle Kacal State Representative, Texas House of Representatives District 12 PO Box 2910 Austin, TX 78768-2910

INTERESTED PERSON(S)

Lee Banse McElroy Sullivan 1201 Spyglass Dr Ste 200 Austin, TX 78746-6925

Lee Banse McElroy Sullivan PO Box 12127 Austin, TX 78711-2127

Jennifer M Bronson Warren 1601 E Crest Dr Waco, TX 76705-1555

Don Darensbourg 5078 Cole Ln College Station, TX 77845-7604

Marcetta Y Darensbourg 5078 Cole Ln College Station, TX 77845-7604

Ryan Deer 5345 Enchanted Oaks Dr College Station, TX 77845-7657

Robert Dotson 5001 Cole Ln College Station, TX 77845-7617

Fred Fontana 4968 Winding Crk College Station, TX 77845-3003

Adam Friedman 4330 Gaines Ranch Loop Ste 200 Austin, TX 78735-6733

Teri Gardner 4785 Enchanted Oaks Dr College Station, TX 77845-7662 Laura Gelderd 5274 Enchanted Oaks Dr College Station, TX 77845-7653

David J Hyden Jr 5632 Cole Ln College Station, TX 77845-7609

Tristin Cole Hyden 5632 Cole Ln College Station, TX 77845-7609

Ben Jones 11695 Australia Ln College Station, TX 77845-7625

Michelle Jones 11695 Australia Ln College Station, TX 77845-7625

Judy Ludwig 2111 Nicole Ct Bryan, TX 77802-2171

Katie Martin 11490 Deer Creek Dr College Station, TX 77845-7629

Lee S Martin 11490 Deer Creek Dr College Station, TX 77845-7629

Steve Maxwell 5041 Whispering Oaks Dr College Station, TX 77845-7672

Kenneth R Mayes Jr 11520 Deer Creek Dr College Station, TX 77845-7628

Glen N Molitor Bar M Ranch 13333 State Highway 30 College Station, TX 77845-7641

Steve Rathbone 4922 Whispering Oaks Dr College Station, TX 77845-7674 Bernice Schiller 5032 Cole Ln College Station, TX 77845-7604

Eugene Schiller 5032 Cole Ln College Station, TX 77845-7604

Gary Sims 5565 Cole Ln College Station, TX 77845-7613

Oliver Sims 3039 Wolfpack Loop Bryan, TX 77808-1501

Ginger Smith 11552 Deer Creek Dr College Station, TX 77845-7628

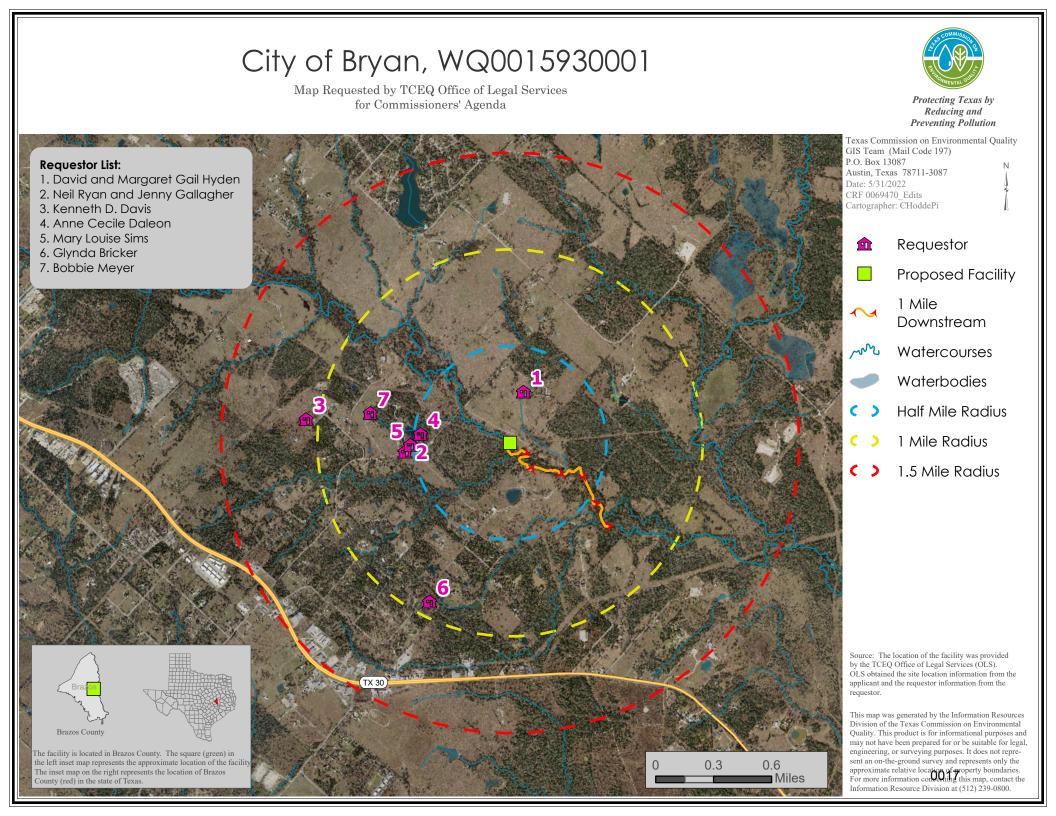
M Earl Smith 11552 Deer Creek Dr College Station, TX 77845-7628

Janie Velasquez 5033 Cole Ln College Station, TX 77845-7617

Charlie Williams 5531 Cole Ln College Station, TX 77845-7613

Steven Witkowski 5695 Enchanted Oaks Dr College Station, TX 77845-7656

Attachment A





TPDES PERMIT NO. WQ0015930001 [For TCEQ office use only - EPA I.D. No. TX0140635]

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

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

City of Bryan

whose mailing address is

P.O. Box 1000 Bryan, Texas 77805

is authorized to treat and discharge wastes from the City of Bryan Brushy Creek Wastewater Treatment Facility Wastewater Treatment Facility, SIC Code 4952

located approximately 1,400 feet northeast of the intersection of Australia Lane and Cole Lane in Brazos County, Texas 77845

to Brushy Creek, thence to Wickson Creek, thence to the Navasota River Below Lake Limestone in Segment No. 1209 of the Brazos River Basin

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

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

ISSUED DATE:

For the Commission

INTERIM EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning upon the date of issuance and lasting through the completion of expansion to the 12.0 million gallons per day (MGD) facility, the permittee is authorized to discharge subject to the following effluent limitations:

The annual average flow of effluent shall not exceed 6.0 million gallons per day (MGD), nor shall the average discharge during any twohour period (2-hour peak) exceed 16,667 gallons per minute.

Effluent Characteristic		Discharge L	imitations	Min. Self-Monitoring Requirements		
	Daily Avg	7-day Avg	Daily Max	Single Grab	Report Daily Avg. & Daily Max. Measurement	
	mg/l (lbs/day)	mg/l	mg/l	mg/l	Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	5 (250)	10	20	30	Five/week	Composite
Total Suspended Solids	15 (751)	25	40	60	Five/week	Composite
Ammonia Nitrogen	2 (100)	5	10	15	Five/week	Composite
<i>E. coli</i> , CFU or MPN* per 100 ml	126	N/A	399	N/A	Daily	Grab

*CFU or MPN - colony-forming units or most probable number

- 2. The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
- 3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored five times per week by grab sample.
- 4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
- 5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
- 6. The effluent shall contain a minimum dissolved oxygen of 6.0 mg/l and shall be monitored five times per week by grab sample.
- 7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

Outfall Number 001

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FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

1. During the period beginning upon the completion of expansion to the 12.0 million gallons per day (MGD) facility and lasting through the date of expiration, the permittee is authorized to discharge subject to the following effluent limitations:

The annual average flow of effluent shall not exceed 12.0 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 33,333 gallons per minute.

Effluent Characteristic		Discharge L	imitations	Min. Self-Monitoring Requirements		
	Daily Avg	7-day Avg	Daily Max	Single Grab	Report Daily Avg. & Daily Max. Measurement	
	mg/l (lbs/day)	mg/l	mg/l	mg/l	Frequency	Sample Type
Flow, MGD	Report	N/A	Report	N/A	Continuous	Totalizing Meter
Carbonaceous Biochemical Oxygen Demand (5-day)	5 (500)	10	20	30	One/day	Composite
Total Suspended Solids	15 (1,501)	25	40	60	One/day	Composite
Ammonia Nitrogen	1.7 (170)	4	8	13	One/day	Composite
<i>E. coli</i> , CFU or MPN* per 100 ml	126	N/A	399	N/A	Daily	Grab

*CFU or MPN - colony-forming units or most probable number

- 2. The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.
- 3. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per day by grab sample.
- 4. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.
- 5. Effluent monitoring samples shall be taken at the following location(s): Following the final treatment unit.
- 6. The effluent shall contain a minimum dissolved oxygen of 6.0 mg/l and shall be monitored once per day by grab sample.
- 7. The annual average flow and maximum 2-hour peak flow shall be reported monthly.

City of Bryan

Outfall Number 001

DEFINITIONS AND STANDARD PERMIT CONDITIONS

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

- 1. Flow Measurements
 - a. Annual average flow the arithmetic average of all daily flow determinations taken within the preceding 12 consecutive calendar months. The annual average flow determination shall consist of daily flow volume determinations made by a totalizing meter, charted on a chart recorder and limited to major domestic wastewater discharge facilities with one million gallons per day or greater permitted flow.
 - b. Daily average flow the arithmetic average of all determinations of the daily flow within a period of one calendar month. The daily average flow determination shall consist of determinations made on at least four separate days. If instantaneous measurements are used to determine the daily flow, the determination shall be the arithmetic average of all instantaneous measurements taken during that month. Daily average flow determinations on days of discharge.
 - c. Daily maximum flow the highest total flow for any 24-hour period in a calendar month.
 - d. Instantaneous flow the measured flow during the minimum time required to interpret the flow measuring device.
 - e. 2-hour peak flow (domestic wastewater treatment plants) the maximum flow sustained for a two-hour period during the period of daily discharge. The average of multiple measurements of instantaneous maximum flow within a two-hour period may be used to calculate the 2-hour peak flow.
 - f. Maximum 2-hour peak flow (domestic wastewater treatment plants) the highest 2-hour peak flow for any 24-hour period in a calendar month.
- 2. Concentration Measurements
 - a. Daily average concentration the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar month, consisting of at least four separate representative measurements.
 - i. For domestic wastewater treatment plants When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values in the previous four consecutive month period consisting of at least four measurements shall be utilized as the daily average concentration.

- ii. For all other wastewater treatment plants When four samples are not available in a calendar month, the arithmetic average (weighted by flow) of all values taken during the month shall be utilized as the daily average concentration.
- b. 7-day average concentration the arithmetic average of all effluent samples, composite or grab as required by this permit, within a period of one calendar week, Sunday through Saturday.
- c. Daily maximum concentration the maximum concentration measured on a single day, by the sample type specified in the permit, within a period of one calendar month.
- d. Daily discharge the discharge of a pollutant measured during a calendar day or any 24hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in terms of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the sampling day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the sampling day.

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

- e. Bacteria concentration (*E. coli* or Enterococci) Colony Forming Units (CFU) or Most Probable Number (MPN) of bacteria per 100 milliliters effluent. The daily average bacteria concentration is a geometric mean of the values for the effluent samples collected in a calendar month. The geometric mean shall be determined by calculating the nth root of the product of all measurements made in a calendar month, where n equals the number of measurements made; or, computed as the antilogarithm of the arithmetic mean of the logarithms of all measurements made in a calendar month. For any measurement of bacteria equaling zero, a substituted value of one shall be made for input into either computation method. If specified, the 7-day average for bacteria is the geometric mean of the values for all effluent samples collected during a calendar week.
- f. Daily average loading (lbs/day) the arithmetic average of all daily discharge loading calculations during a period of one calendar month. These calculations must be made for each day of the month that a parameter is analyzed. The daily discharge, in terms of mass (lbs/day), is calculated as (Flow, MGD x Concentration, mg/l x 8.34).
- g. Daily maximum loading (lbs/day) the highest daily discharge, in terms of mass (lbs/day), within a period of one calendar month.

3. Sample Type

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

- b. Grab sample an individual sample collected in less than 15 minutes.
- 4. Treatment Facility (facility) wastewater facilities used in the conveyance, storage, treatment, recycling, reclamation and/or disposal of domestic sewage, industrial wastes, agricultural wastes, recreational wastes, or other wastes including sludge handling or disposal facilities under the jurisdiction of the Commission.
- 5. The term "sewage sludge" is defined as solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in 30 TAC Chapter 312. This includes the solids that have not been classified as hazardous waste separated from wastewater by unit processes.
- 6. The term "biosolids" is defined as sewage sludge that has been tested or processed to meet Class A, Class AB, or Class B pathogen standards in 30 TAC Chapter 312 for beneficial use.
- 7. Bypass the intentional diversion of a waste stream from any portion of a treatment facility.

MONITORING AND REPORTING REQUIREMENTS

1. Self-Reporting

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

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

- 2. Test Procedures
 - a. Unless otherwise specified in this permit, test procedures for the analysis of pollutants shall comply with procedures specified in 30 TAC §§ 319.11 319.12. Measurements, tests, and calculations shall be accurately accomplished in a representative manner.
 - b. All laboratory tests submitted to demonstrate compliance with this permit must meet the requirements of 30 TAC § 25, Environmental Testing Laboratory Accreditation and Certification.
- 3. Records of Results
 - a. Monitoring samples and measurements shall be taken at times and in a manner so as to be representative of the monitored activity.

- b. Except for records of monitoring information required by this permit related to the permittee's sewage sludge or biosolids use and disposal activities, which shall be retained for a period of at least five years (or longer as required by 40 CFR Part 503), monitoring and reporting records, including strip charts and records of calibration and maintenance, copies of all records required by this permit, records of all data used to complete the application for this permit, and the certification required by 40 CFR § 264.73(b)(9) shall be retained at the facility site, or shall be readily available for review by a TCEQ representative for a period of three years from the date of the record or sample, measurement, report, application or certification. This period shall be extended at the request of the Executive Director.
- c. Records of monitoring activities shall include the following:
 - i. date, time and place of sample or measurement;
 - ii. identity of individual who collected the sample or made the measurement.
 - iii. date and time of analysis;
 - iv. identity of the individual and laboratory who performed the analysis;
 - v. the technique or method of analysis; and
 - vi. the results of the analysis or measurement and quality assurance/quality control records.

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

4. Additional Monitoring by Permittee

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

5. Calibration of Instruments

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

6. Compliance Schedule Reports

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

7. Noncompliance Notification

- a. In accordance with 30 TAC § 305.125(9) any noncompliance which may endanger human health or safety, or the environment shall be reported by the permittee to the TCEQ. Except as allowed by 30 TAC § 305.132, report of such information shall be provided orally or by facsimile transmission (FAX) to the Regional Office within 24 hours of becoming aware of the noncompliance. A written submission of such information shall also be provided by the permittee to the Regional Office and the Compliance Monitoring Team of the Enforcement Division (MC 224) within five working days of becoming aware of the noncompliance. For Publicly Owned Treatment Works (POTWs), effective December 21, 2023, the permittee must submit the written report for unauthorized discharges and unanticipated bypasses that exceed any effluent limit in the permit using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. The written submission shall contain a description of the noncompliance and its cause; the potential danger to human health or safety, or the environment; the period of noncompliance, including exact dates and times; if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance, and to mitigate its adverse effects.
- b. The following violations shall be reported under Monitoring and Reporting Requirement 7.a.:
 - i. Unauthorized discharges as defined in Permit Condition 2(g).
 - ii. Any unanticipated bypass that exceeds any effluent limitation in the permit.
 - iii. Violation of a permitted maximum daily discharge limitation for pollutants listed specifically in the Other Requirements section of an Industrial TPDES permit.
- c. In addition to the above, any effluent violation which deviates from the permitted effluent limitation by more than 40% shall be reported by the permittee in writing to the Regional Office and the Compliance Monitoring Team of the Enforcement Division (MC 224) within 5 working days of becoming aware of the noncompliance.
- d. Any noncompliance other than that specified in this section, or any required information not submitted or submitted incorrectly, shall be reported to the Compliance Monitoring Team of the Enforcement Division (MC 224) as promptly as possible. For effluent limitation violations, noncompliances shall be reported on the approved self-report form.
- 8. In accordance with the procedures described in 30 TAC §§ 35.301 35.303 (relating to Water Quality Emergency and Temporary Orders) if the permittee knows in advance of the need for a bypass, it shall submit prior notice by applying for such authorization.
- 9. Changes in Discharges of Toxic Substances

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

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant listed at 40 CFR Part 122, Appendix D, Tables II and III (excluding Total Phenols) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. One hundred micrograms per liter (100 μ g/L);
 - ii. Two hundred micrograms per liter (200 μ g/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 μ g/L) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. The level established by the TCEQ.
- b. That any activity has occurred or will occur which would result in any discharge, on a nonroutine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - i. Five hundred micrograms per liter (500 μ g/L);
 - ii. One milligram per liter (1 mg/L) for antimony;
 - iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application; or
 - iv. The level established by the TCEQ.
- 10. Signatories to Reports

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

- 11. All POTWs must provide adequate notice to the Executive Director of the following:
 - a. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to CWA § 301 or § 306 if it were directly discharging those pollutants;
 - b. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit; and
 - c. For the purpose of this paragraph, adequate notice shall include information on:
 - i. The quality and quantity of effluent introduced into the POTW; and
 - ii. Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

PERMIT CONDITIONS

- 1. General
 - a. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in an application or in any report to the Executive Director, it shall promptly submit such facts or information.
 - b. This permit is granted on the basis of the information supplied and representations made by the permittee during action on an application, and relying upon the accuracy and completeness of that information and those representations. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked, in whole or in part, in accordance with 30 TAC Chapter 305, Subchapter D, during its term for good cause including, but not limited to, the following:
 - i. Violation of any terms or conditions of this permit;
 - ii. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
 - iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.
 - c. The permittee shall furnish to the Executive Director, upon request and within a reasonable time, any information to determine whether cause exists for amending, revoking, suspending or terminating the permit. The permittee shall also furnish to the Executive Director, upon request, copies of records required to be kept by the permit.
- 2. Compliance
 - a. Acceptance of the permit by the person to whom it is issued constitutes acknowledgment and agreement that such person will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.
 - b. The permittee has a duty to comply with all conditions of the permit. Failure to comply with any permit condition constitutes a violation of the permit and the Texas Water Code or the Texas Health and Safety Code, and is grounds for enforcement action, for permit amendment, revocation, or suspension, or for denial of a permit renewal application or an application for a permit for another facility.
 - c. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
 - d. The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal or other permit violation that has a reasonable likelihood of adversely affecting human health or the environment.
 - e. Authorization from the Commission is required before beginning any change in the permitted facility or activity that may result in noncompliance with any permit requirements.

- f. A permit may be amended, suspended and reissued, or revoked for cause in accordance with 30 TAC §§ 305.62 and 305.66 and TWC§ 7.302. The filing of a request by the permittee for a permit amendment, suspension and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.
- g. There shall be no unauthorized discharge of wastewater or any other waste. For the purpose of this permit, an unauthorized discharge is considered to be any discharge of wastewater into or adjacent to water in the state at any location not permitted as an outfall or otherwise defined in the Other Requirements section of this permit.
- h. In accordance with 30 TAC § 305.535(a), the permittee may allow any bypass to occur from a TPDES permitted facility which does not cause permitted effluent limitations to be exceeded or an unauthorized discharge to occur, but only if the bypass is also for essential maintenance to assure efficient operation.
- i. The permittee is subject to administrative, civil, and criminal penalties, as applicable, under TWC §§ 7.051 7.075 (relating to Administrative Penalties), 7.101 7.111 (relating to Civil Penalties), and 7.141 7.202 (relating to Criminal Offenses and Penalties) for violations including, but not limited to, negligently or knowingly violating the federal CWA §§ 301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under the CWA § 402, or any requirement imposed in a pretreatment program approved under the CWA §§ 402 (a)(3) or 402 (b)(8).
- 3. Inspections and Entry
 - a. Inspection and entry shall be allowed as prescribed in the TWC Chapters 26, 27, and 28, and THSC § 361.
 - b. The members of the Commission and employees and agents of the Commission are entitled to enter any public or private property at any reasonable time for the purpose of inspecting and investigating conditions relating to the quality of water in the state or the compliance with any rule, regulation, permit or other order of the Commission. Members, employees, or agents of the Commission and Commission contractors are entitled to enter public or private property at any reasonable time to investigate or monitor or, if the responsible party is not responsive or there is an immediate danger to public health or the environment, to remove or remediate a condition related to the quality of water in the state. Members, employees, Commission contractors, or agents acting under this authority who enter private property shall observe the establishment's rules and regulations concerning safety, internal security, and fire protection, and if the property has management in residence, shall notify management or the person then in charge of his presence and shall exhibit proper credentials. If any member, employee, Commission contractor, or agent is refused the right to enter in or on public or private property under this authority, the Executive Director may invoke the remedies authorized in TWC § 7.002. The statement above, that Commission entry shall occur in accordance with an establishment's rules and regulations concerning safety, internal security, and fire protection, is not grounds for denial or restriction of entry to any part of the facility, but merely describes the Commission's duty to observe appropriate rules and regulations during an inspection.

- 4. Permit Amendment and/or Renewal
 - a. The permittee shall give notice to the Executive Director as soon as possible of any planned physical alterations or additions to the permitted facility if such alterations or additions would require a permit amendment or result in a violation of permit requirements. Notice shall also be required under this paragraph when:
 - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in accordance with 30 TAC § 305.534 (relating to New Sources and New Dischargers); or
 - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are subject neither to effluent limitations in the permit, nor to notification requirements in Monitoring and Reporting Requirements No. 9; or
 - iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
 - b. Prior to any facility modifications, additions, or expansions that will increase the plant capacity beyond the permitted flow, the permittee must apply for and obtain proper authorization from the Commission before commencing construction.
 - c. The permittee must apply for an amendment or renewal at least 180 days prior to expiration of the existing permit in order to continue a permitted activity after the expiration date of the permit. If an application is submitted prior to the expiration date of the permit, the existing permit shall remain in effect until the application is approved, denied, or returned. If the application is returned or denied, authorization to continue such activity shall terminate upon the effective date of the action. If an application is not submitted prior to the expiration date of the permit, the permit shall expire and authorization to continue such activity shall terminate upon the effective date.
 - d. Prior to accepting or generating wastes which are not described in the permit application or which would result in a significant change in the quantity or quality of the existing discharge, the permittee must report the proposed changes to the Commission. The permittee must apply for a permit amendment reflecting any necessary changes in permit conditions, including effluent limitations for pollutants not identified and limited by this permit.
 - e. In accordance with the TWC § 26.029(b), after a public hearing, notice of which shall be given to the permittee, the Commission may require the permittee, from time to time, for good cause, in accordance with applicable laws, to conform to new or additional conditions.
 - f. If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA § 307(a) for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this permit, this permit shall be modified or revoked and reissued to conform to the toxic effluent standard or

prohibition. The permittee shall comply with effluent standards or prohibitions established under CWA § 307(a) for toxic pollutants within the time provided in the regulations that established those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

- 5. Permit Transfer
 - a. Prior to any transfer of this permit, Commission approval must be obtained. The Commission shall be notified in writing of any change in control or ownership of facilities authorized by this permit. Such notification should be sent to the Applications Review and Processing Team (MC 148) of the Water Quality Division.
 - b. A permit may be transferred only according to the provisions of 30 TAC § 305.64 (relating to Transfer of Permits) and 30 TAC § 50.133 (relating to Executive Director Action on Application or WQMP update).
- 6. Relationship to Hazardous Waste Activities

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

7. Relationship to Water Rights

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

8. Property Rights

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

9. Permit Enforceability

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

10. Relationship to Permit Application

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

- 11. Notice of Bankruptcy
 - a. Each permittee shall notify the Executive Director, in writing, immediately following the filing of a voluntary or involuntary petition for bankruptcy under any chapter of Title 11 (Bankruptcy) of the United States Code (11 USC) by or against:
 - i. the permittee;
 - ii. an entity (as that term is defined in 11 USC, § 101(14)) controlling the permittee or listing the permit or permittee as property of the estate; or

- iii. an affiliate (as that term is defined in 11 USC, § 101(2)) of the permittee.
- b. This notification must indicate:
 - i. the name of the permittee;
 - ii. the permit number(s);
 - iii. the bankruptcy court in which the petition for bankruptcy was filed; and
 - iv. the date of filing of the petition.

OPERATIONAL REQUIREMENTS

- 1. The permittee shall at all times ensure that the facility and all of its systems of collection, treatment, and disposal are properly operated and maintained. This includes, but is not limited to, the regular, periodic examination of wastewater solids within the treatment plant by the operator in order to maintain an appropriate quantity and quality of solids inventory as described in the various operator training manuals and according to accepted industry standards for process control. Process control, maintenance, and operations records shall be retained at the facility site, or shall be readily available for review by a TCEQ representative, for a period of three years.
- 2. Upon request by the Executive Director, the permittee shall take appropriate samples and provide proper analysis in order to demonstrate compliance with Commission rules. Unless otherwise specified in this permit or otherwise ordered by the Commission, the permittee shall comply with all applicable provisions of 30 TAC Chapter 312 concerning sewage sludge or biosolids use and disposal and 30 TAC §§ 319.21 319.29 concerning the discharge of certain hazardous metals.
- 3. Domestic wastewater treatment facilities shall comply with the following provisions:
 - a. The permittee shall notify the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, in writing, of any facility expansion at least 90 days prior to conducting such activity.
 - b. The permittee shall submit a closure plan for review and approval to the Municipal Permits Team, Wastewater Permitting Section (MC 148) of the Water Quality Division, for any closure activity at least 90 days prior to conducting such activity. Closure is the act of permanently taking a waste management unit or treatment facility out of service and includes the permanent removal from service of any pit, tank, pond, lagoon, surface impoundment and/or other treatment unit regulated by this permit.
- 4. The permittee is responsible for installing prior to plant start-up, and subsequently maintaining, adequate safeguards to prevent the discharge of untreated or inadequately treated wastes during electrical power failures by means of alternate power sources, standby generators, and/or retention of inadequately treated wastewater.
- 5. Unless otherwise specified, the permittee shall provide a readily accessible sampling point and, where applicable, an effluent flow measuring device or other acceptable means by which effluent flow may be determined.

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

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

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

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

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

- c. Permits for domestic wastewater treatment plants are granted subject to the policy of the Commission to encourage the development of area-wide waste collection, treatment, and disposal systems. The Commission reserves the right to amend any domestic wastewater permit in accordance with applicable procedural requirements to require the system covered by this permit to be integrated into an area-wide system, should such be developed; to require the delivery of the wastes authorized to be collected in, treated by or discharged from said system, to such area-wide system; or to amend this permit in any other particular to effectuate the Commission's policy. Such amendments may be made when the changes required are advisable for water quality control purposes and are feasible on the basis of waste treatment technology, engineering, financial, and related considerations existing at the time the changes are required, exclusive of the loss of investment in or revenues from any then existing or proposed waste collection, treatment or disposal system.
- 9. Domestic wastewater treatment plants shall be operated and maintained by sewage plant operators holding a valid certificate of competency at the required level as defined in 30 TAC Chapter 30.
- 10. For Publicly Owned Treatment Works (POTWs), the 30-day average (or monthly average) percent removal for BOD and TSS shall not be less than 85%, unless otherwise authorized by this permit.
- 11. Facilities that generate industrial solid waste as defined in 30 TAC § 335.1 shall comply with these provisions:
 - a. Any solid waste, as defined in 30 TAC § 335.1 (including but not limited to such wastes as garbage, refuse, sludge from a waste treatment, water supply treatment plant or air pollution control facility, discarded materials, discarded materials to be recycled, whether the waste is solid, liquid, or semisolid), generated by the permittee during the management and treatment of wastewater, must be managed in accordance with all applicable provisions of 30 TAC Chapter 335, relating to Industrial Solid Waste Management.
 - b. Industrial wastewater that is being collected, accumulated, stored, or processed before discharge through any final discharge outfall, specified by this permit, is considered to be industrial solid waste until the wastewater passes through the actual point source discharge and must be managed in accordance with all applicable provisions of 30 TAC Chapter 335.
 - c. The permittee shall provide written notification, pursuant to the requirements of 30 TAC § 335.8(b)(1), to the Corrective Action Section (MC 221) of the Remediation Division informing the Commission of any closure activity involving an Industrial Solid Waste Management Unit, at least 90 days prior to conducting such an activity.
 - d. Construction of any industrial solid waste management unit requires the prior written notification of the proposed activity to the Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division. No person shall dispose of industrial solid waste, including sludge or other solids from wastewater treatment processes, prior to fulfilling the deed recordation requirements of 30 TAC § 335.5.
 - e. The term "industrial solid waste management unit" means a landfill, surface impoundment, waste-pile, industrial furnace, incinerator, cement kiln, injection well,

container, drum, salt dome waste containment cavern, or any other structure vessel, appurtenance, or other improvement on land used to manage industrial solid waste.

- f. The permittee shall keep management records for all sludge (or other waste) removed from any wastewater treatment process. These records shall fulfill all applicable requirements of 30 TAC § 335 and must include the following, as it pertains to wastewater treatment and discharge:
 - i. Volume of waste and date(s) generated from treatment process;
 - ii. Volume of waste disposed of on-site or shipped off-site;
 - iii. Date(s) of disposal;
 - iv. Identity of hauler or transporter;
 - v. Location of disposal site; and
 - vi. Method of final disposal.

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

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

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SLUDGE PROVISIONS

The permittee is authorized to dispose of sludge only at a Texas Commission on Environmental Quality (TCEQ) authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge. **The disposal of sludge or biosolids by land application on property owned, leased or under the direct control of the permittee is a violation of the permit unless the site is authorized with the TCEQ. This provision does not authorize Distribution and Marketing of Class A or Class AB Biosolids. This provision does not authorize the permittee to land apply biosolids on property owned, leased or under the direct control of the permittee.**

SECTION I. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE OR BIOSOLIDS LAND APPLICATION

A. General Requirements

- 1. The permittee shall handle and dispose of sewage sludge or biosolids in accordance with 30 TAC § 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present in the sludge or biosolids.
- 2. In all cases, if the person (permit holder) who prepares the sewage sludge supplies the sewage sludge to another person for land application use or to the owner or lease holder of the land, the permit holder shall provide necessary information to the parties who receive the sludge to assure compliance with these regulations.
- 3. The land application of processed or unprocessed chemical toilet waste, grease trap waste, grit trap waste, milk solids, or similar non-hazardous municipal or industrial solid wastes, or any of the wastes listed in this provision combined with biosolids, WTP residuals or domestic septage is prohibited unless the grease trap waste is added at a fats, oil and grease (FOG) receiving facility as part of an anaerobic digestion process.

B. Testing Requirements

Sewage sludge or biosolids shall be tested annually in accordance with the method 1. specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I [Toxicity Characteristic Leaching Procedure (TCLP)] or other method that receives the prior approval of the TCEQ for the contaminants listed in 40 CFR Part 261.24, Table 1. Sewage sludge or biosolids failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal. Following failure of any TCLP test, the management or disposal of sewage sludge or biosolids at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge or biosolids no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division and the Regional Director (MC Region 9) within seven (7) days after failing the TCLP Test.

The report shall contain test results, certification that unauthorized waste management has stopped, and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Permitting and Registration Support Division (MC 129), Texas Commission on Environmental Quality, P.O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. This annual report shall be submitted to the TCEQ Regional Office (MC Region 9) and the Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

2. Biosolids shall not be applied to the land if the concentration of the pollutants exceeds the pollutant concentration criteria in Table 1. The frequency of testing for pollutants in Table 1 is found in Section I.C. of this permit.

<u>Pollutant</u>	<u>Ceiling Concentration</u> (<u>Milligrams per kilogram</u>)*
Arsenic	75
Cadmium	85
Chromium	3000
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
PCBs	49
Selenium	100
Zinc	7500

TABLE 1

* Dry weight basis

3. Pathogen Control

All sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site must be treated by one of the following methods to ensure that the sludge meets either the Class A, Class AB or Class B biosolids pathogen requirements.

a. For sewage sludge to be classified as Class A biosolids with respect to pathogens, the density of fecal coliform in the sewage sludge must be less than 1,000 most probable number (MPN) per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the sewage sludge must be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met:

<u>Alternative 1</u> - The temperature of the sewage sludge that is used or disposed shall be maintained at or above a specific value for a period of time. See 30 TAC § 312.82(a)(2)(A) for specific information;

Alternative 5 (PFRP) - Sewage sludge that is used or disposed of must be treated in one of the Processes to Further Reduce Pathogens (PFRP) described in 40 CFR Part 503, Appendix B. PFRP include composting, heat drying, heat treatment, and thermophilic aerobic digestion; or

Alternative 6 (PFRP Equivalent) - Sewage sludge that is used or disposed of must be treated in a process that has been approved by the U. S. Environmental Protection Agency as being equivalent to those in Alternative 5.

b. For sewage sludge to be classified as Class AB biosolids with respect to pathogens, the density of fecal coliform in the sewage sludge must be less than 1,000 MPN per gram of total solids (dry weight basis), or the density of *Salmonella* sp. bacteria in the sewage sludge be less than three MPN per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. In addition, one of the alternatives listed below must be met:

<u>Alternative 2</u> - The pH of the sewage sludge that is used or disposed shall be raised to above 12 std. units and shall remain above 12 std. units for 72 hours.

The temperature of the sewage sludge shall be above 52° Celsius for 12 hours or longer during the period that the pH of the sewage sludge is above 12 std. units.

At the end of the 72-hour period during which the pH of the sewage sludge is above 12 std. units, the sewage sludge shall be air dried to achieve a percent solids in the sewage sludge greater than 50%; or

<u>Alternative 3</u> - The sewage sludge shall be analyzed for enteric viruses prior to pathogen treatment. The limit for enteric viruses is less than one Plaque-forming Unit per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(i-iii) for specific information. The sewage sludge shall be analyzed for viable helminth ova prior to pathogen treatment. The limit for viable helminth ova is less than one per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(i-iii) for specific information. The sewage sludge shall be analyzed for viable helminth ova prior to pathogen treatment. The limit for viable helminth ova is less than one per four grams of total solids (dry weight basis) either before or following pathogen treatment. See 30 TAC § 312.82(a)(2)(C)(iv-vi) for specific information; or

<u>Alternative 4</u> - The density of enteric viruses in the sewage sludge shall be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed. The density of viable helminth ova in the sewage sludge shall be less than one per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed.

- c. Sewage sludge that meets the requirements of Class AB biosolids may be classified a Class A biosolids if a variance request is submitted in writing that is supported by substantial documentation demonstrating equivalent methods for reducing odors and written approval is granted by the executive director. The executive director may deny the variance request or revoke that approved variance if it is determined that the variance may potentially endanger human health or the environment, or create nuisance odor conditions.
- d. Three alternatives are available to demonstrate compliance with Class B biosolids criteria.

<u>Alternative 1</u>

- i. A minimum of seven random samples of the sewage sludge shall be collected within 48 hours of the time the sewage sludge is used or disposed of during each monitoring episode for the sewage sludge.
- ii. The geometric mean of the density of fecal coliform in the samples collected shall be less than either 2,000,000 MPN per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

<u>Alternative 2</u> - Sewage sludge that is used or disposed of shall be treated in one of the Processes to Significantly Reduce Pathogens (PSRP) described in 40 CFR Part 503, Appendix B, so long as all of the following requirements are met by the generator of the sewage sludge.

- i. Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;
- ii. An independent Texas Licensed Professional Engineer must make a certification to the generator of a sewage sludge that the wastewater treatment facility generating the sewage sludge is designed to achieve one of the PSRP at the permitted design loading of the facility. The certification need only be repeated if the design loading of the facility is increased. The certification shall include a statement indicating the design meets all the applicable standards specified in Appendix B of 40 CFR Part 503;
- iii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;
- iv. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review; and
- v. If the sewage sludge is generated from a mixture of sources, resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the PSRP, and shall meet the certification, operation, and record keeping requirements of this paragraph.

<u>Alternative 3</u> - Sewage sludge shall be treated in an equivalent process that has been approved by the U.S. Environmental Protection Agency, so long as all of the following requirements are met by the generator of the sewage sludge.

i. Prior to use or disposal, all the sewage sludge must have been generated from a single location, except as provided in paragraph v. below;

- ii. Prior to any off-site transportation or on-site use or disposal of any sewage sludge generated at a wastewater treatment facility, the chief certified operator of the wastewater treatment facility or other responsible official who manages the processes to significantly reduce pathogens at the wastewater treatment facility for the permittee, shall certify that the sewage sludge underwent at least the minimum operational requirements necessary in order to meet one of the PSRP. The acceptable processes and the minimum operational and record keeping requirements shall be in accordance with established U.S. Environmental Protection Agency final guidance;
- iii. All certification records and operational records describing how the requirements of this paragraph were met shall be kept by the generator for a minimum of three years and be available for inspection by commission staff for review;
- iv. The Executive Director will accept from the U.S. Environmental Protection Agency a finding of equivalency to the defined PSRP; and
- v. If the sewage sludge is generated from a mixture of sources resulting from a person who prepares sewage sludge from more than one wastewater treatment facility, the resulting derived product shall meet one of the Processes to Significantly Reduce Pathogens, and shall meet the certification, operation, and record keeping requirements of this paragraph.

In addition to the Alternatives 1 - 3, the following site restrictions must be met if Class B biosolids are land applied:

- i. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of biosolids.
- ii. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of biosolids when the biosolids remain on the land surface for 4 months or longer prior to incorporation into the soil.
- iii. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of biosolids when the biosolids remain on the land surface for less than 4 months prior to incorporation into the soil.
- iv. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of biosolids.
- v. Domestic livestock shall not be allowed to graze on the land for 30 days after application of biosolids.
- vi. Turf grown on land where biosolids are applied shall not be harvested for 1 year after application of the biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn.
- vii. Public access to land with a high potential for public exposure shall be restricted for 1 year after application of biosolids.

- viii. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of biosolids.
- ix. Land application of biosolids shall be in accordance with the buffer zone requirements found in 30 TAC \S 312.44.
- 4. Vector Attraction Reduction Requirements

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, or a reclamation site shall be treated by one of the following Alternatives 1 through 10 for vector attraction reduction.

- <u>Alternative 1</u> The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38%.
- <u>Alternative 2</u> If Alternative 1 cannot be met for an anaerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30° and 37° Celsius. Volatile solids must be reduced by less than 17% to demonstrate compliance.
- <u>Alternative 3</u> If Alternative 1 cannot be met for an aerobically digested sludge, demonstration can be made by digesting a portion of the previously digested sludge with percent solids of two percent or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20° Celsius. Volatile solids must be reduced by less than 15% to demonstrate compliance.
- <u>Alternative 4</u> The specific oxygen uptake rate (SOUR) for sewage sludge treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20° Celsius.
- <u>Alternative 5</u> Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40° Celsius and the average temperature of the sewage sludge shall be higher than 45° Celsius.
- <u>Alternative 6</u> The pH of sewage sludge shall be raised to 12 or higher by alkali addition and, without the addition of more alkali shall remain at 12 or higher for two hours and then remain at a pH of 11.5 or higher for an additional 22 hours at the time the sewage sludge is prepared for sale or given away in a bag or other container.
- <u>Alternative 7</u> The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75% based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

<u> Alternative 8</u> -	The percent solids of sewage sludge that contains unstabilized solids
	generated in a primary wastewater treatment process shall be equal to
	or greater than 90% based on the moisture content and total solids
	prior to mixing with other materials at the time the sludge is used.
	Unstabilized solids are defined as organic materials in sewage sludge
	that have not been treated in either an aerobic or anaerobic treatment
	process.

- <u>Alternative 9</u> i. Biosolids shall be injected below the surface of the land.
 - ii. No significant amount of the biosolids shall be present on the land surface within one hour after the biosolids are injected.
 - iii. When sewage sludge that is injected below the surface of the land is Class A or Class AB with respect to pathogens, the biosolids shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.
- <u>Alternative 10</u>- i. Biosolids applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six hours after application to or placement on the land.
 - ii. When biosolids that are incorporated into the soil is Class A or Class AB with respect to pathogens, the biosolids shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

C. Monitoring Requirements

Toxicity Characteristic Leaching Procedure	- annually
(TCLP) Test	
PCBs	- annually

All metal constituents and fecal coliform or *Salmonella* sp. bacteria shall be monitored at the appropriate frequency shown below, pursuant to 30 TAC § 312.46(a)(1):

Amount of biosolids (*) <u>metric tons per 365-day period</u>	Monitoring Frequency
0 to less than 290	Once/Year
290 to less than 1,500	Once/Quarter
1,500 to less than 15,000	Once/Two Months
15,000 or greater	Once/Month

(*) The amount of bulk biosolids applied to the land (dry wt. basis).

Representative samples of sewage sludge shall be collected and analyzed in accordance with the methods referenced in 30 TAC § 312.7

Identify each of the analytic methods used by the facility to analyze enteric viruses, fecal coliforms, helminth ova, *Salmonella* sp., and other regulated parameters.

Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.

Identify the nature of material generated by the facility (such as a biosolid for beneficial use or land-farming, or sewage sludge or biosolids for disposal at a monofill) and whether the material is ultimately conveyed off-site in bulk or in bags.

SECTION II. REQUIREMENTS SPECIFIC TO BULK SEWAGE SLUDGE OR BIOSOLIDS FOR APPLICATION TO THE LAND MEETING CLASS A, CLASS AB or B PATHOGEN REDUCTION AND THE CUMULATIVE LOADING RATES IN TABLE 2, OR CLASS B PATHOGEN REDUCTION AND THE POLLUTANT CONCENTRATIONS IN TABLE 3

For those permittees meeting Class A, Class AB or B pathogen reduction requirements and that meet the cumulative loading rates in Table 2 below, or the Class B pathogen reduction requirements and contain concentrations of pollutants below listed in Table 3, the following conditions apply:

Table o

A. Pollutant Limits

	Table 2	
Pollutant Arsenic Cadmium Chromium Copper Lead Mercury Molybdenum Nickel Selenium Zinc		Cumulative Pollutant Loading Rate (<u>pounds per acre</u>)* 36 35 2677 1339 268 15 Report Only 375 89 2500
	Table 3	
<u>Pollutant</u> Arsenic Cadmium Chromium Copper Lead Mercury Molybdenum Nickel Selenium		Monthly Average Concentration (<u>milligrams per kilogram</u>)* 41 39 1200 1500 300 17 Report Only 420 36

*Dry weight basis

B. Pathogen Control

Zinc

All bulk sewage sludge that is applied to agricultural land, forest, a public contact site, a reclamation site, shall be treated by either Class A, Class AB or Class B biosolids pathogen reduction requirements as defined above in Section I.B.3.

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C. Management Practices

- 1. Bulk biosolids shall not be applied to agricultural land, forest, a public contact site, or a reclamation site that is flooded, frozen, or snow-covered so that the bulk sewage sludge enters a wetland or other waters in the State.
- 2. Bulk biosolids not meeting Class A requirements shall be land applied in a manner which complies with Applicability in accordance with 30 TAC §312.41 and the Management Requirements in accordance with 30 TAC § 312.44.
- 3. Bulk biosolids shall be applied at or below the agronomic rate of the cover crop.
- 4. An information sheet shall be provided to the person who receives bulk Class A or AB biosolids sold or given away. The information sheet shall contain the following information:
 - a. The name and address of the person who prepared the Class A or AB biosolids that are sold or given away in a bag or other container for application to the land.
 - b. A statement that application of the biosolids to the land is prohibited except in accordance with the instruction on the label or information sheet.
 - c. The annual whole sludge application rate for the biosolids application rate for the biosolids that does not cause any of the cumulative pollutant loading rates in Table 2 above to be exceeded, unless the pollutant concentrations in Table 3 found in Section II above are met.

D. Notification Requirements

- 1. If bulk is applied to land in a State other than Texas, written notice shall be provided prior to the initial land application to the permitting authority for the State in which the bulk biosolids are proposed to be applied. The notice shall include:
 - a. The location, by street address, and specific latitude and longitude, of each land application site.
 - b. The approximate time period bulk biosolids will be applied to the site.
 - c. The name, address, telephone number, and National Pollutant Discharge Elimination System permit number (if appropriate) for the person who will apply the bulk biosolids.
- 2. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the biosolids disposal practice.

E. Record keeping Requirements

The documents will be retained at the facility site and/or shall be readily available for review by a TCEQ representative. The person who prepares bulk sewage sludge or a biosolids material shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ representative for a period of <u>five years</u>. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply.

- 1. The concentration (mg/kg) in the sludge of each pollutant listed in Table 3 above and the applicable pollutant concentration criteria (mg/kg), <u>or</u> the applicable cumulative pollutant loading rate and the applicable cumulative pollutant loading rate limit (lbs/ac) listed in Table 2 above.
- 2. A description of how the pathogen reduction requirements are met (including site restrictions for Class AB and Class B biosolids, if applicable).
- 3. A description of how the vector attraction reduction requirements are met.
- 4. A description of how the management practices listed above in Section II.C are being met.
- 5. The following certification statement:

"I certify, under penalty of law, that the applicable pathogen requirements in 30 TAC § 312.82(a) or (b) and the vector attraction reduction requirements in 30 TAC § 312.83(b) have been met for each site on which bulk biosolids are applied. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the management practices have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."

- 6. The recommended agronomic loading rate from the references listed in Section II.C.3. above, as well as the actual agronomic loading rate shall be retained. The person who applies bulk biosolids shall develop the following information and shall retain the information at the facility site and/or shall be readily available for review by a TCEQ representative <u>indefinitely</u>. If the permittee supplies the sludge to another person who land applies the sludge, the permittee shall notify the land applier of the requirements for record keeping found in 30 TAC § 312.47 for persons who land apply:
 - a. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii), as applicable, and to the permittee's specific sludge treatment activities.
 - b. The location, by street address, and specific latitude and longitude, of each site on which biosolids are applied.
 - c. The number of acres in each site on which bulk biosolids are applied.
 - d. The date and time biosolids are applied to each site.
 - e. The cumulative amount of each pollutant in pounds/acre listed in Table 2 applied to each site.
 - f. The total amount of biosolids applied to each site in dry tons.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

F. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 9) and Compliance Monitoring Team (MC 224) of the Enforcement Division, by September 30th of each year the following information. The permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

- 1. Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.
- 2. Identify the nature of material generated by the facility (such as a biosolid for beneficial use or land-farming, or sewage sludge for disposal at a monofill) and whether the material is ultimately conveyed off-site in bulk or in bags.
- 3. Results of tests performed for pollutants found in either Table 2 or 3 as appropriate for the permittee's land application practices.
- 4. The frequency of monitoring listed in Section I.C. that applies to the permittee.
- 5. Toxicity Characteristic Leaching Procedure (TCLP) results.
- 6. PCB concentration in sludge or biosolids in mg/kg.
- 7. Identity of hauler(s) and TCEQ transporter number.
- 8. Date(s) of transport.
- 9. Texas Commission on Environmental Quality registration number, if applicable.
- 10. Amount of sludge or biosolids disposal dry weight (lbs/acre) at each disposal site.
- 11. The concentration (mg/kg) in the sludge of each pollutant listed in Table 1 (defined as a monthly average) as well as the applicable pollutant concentration criteria (mg/kg) listed in Table 3 above, or the applicable pollutant loading rate limit (lbs/acre) listed in Table 2 above if it exceeds 90% of the limit.
- 12. Level of pathogen reduction achieved (Class A, Class AB or Class B).
- 13. Alternative used as listed in Section I.B.3.(a. or b.). Alternatives describe how the pathogen reduction requirements are met. If Class B biosolids, include information on how site restrictions were met.
- 14. Identify each of the analytic methods used by the facility to analyze enteric viruses, fecal coliforms, helminth ova, *Salmonella* sp., and other regulated parameters.
- 15. Vector attraction reduction alternative used as listed in Section I.B.4.

- 16. Amount of sludge or biosolids transported in dry tons/year.
- 17. The certification statement listed in either 30 TAC § 312.47(a)(4)(A)(ii) or 30 TAC § 312.47(a)(5)(A)(ii) as applicable to the permittee's sludge or biosolids treatment activities, shall be attached to the annual reporting form.
- 18. When the amount of any pollutant applied to the land exceeds 90% of the cumulative pollutant loading rate for that pollutant, as described in Table 2, the permittee shall report the following information as an attachment to the annual reporting form.
 - a. The location, by street address, and specific latitude and longitude.
 - b. The number of acres in each site on which bulk biosolids are applied.
 - c. The date and time bulk biosolids are applied to each site.
 - d. The cumulative amount of each pollutant (i.e., pounds/acre) listed in Table 2 in the bulk biosolids applied to each site.
 - e. The amount of biosolids (i.e., dry tons) applied to each site.

The above records shall be maintained on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

SECTION III. REQUIREMENTS APPLYING TO ALL SEWAGE SLUDGE OR BIOSOLIDS DISPOSED IN A MUNICIPAL SOLID WASTE LANDFILL

- A. The permittee shall handle and dispose of sewage sludge or biosolids in accordance with 30 TAC § 330 and all other applicable state and federal regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present. The permittee shall ensure that the sewage sludge meets the requirements in 30 TAC § 330 concerning the quality of the sludge or biosolids disposed in a municipal solid waste landfill.
- B. If the permittee generates sewage sludge and supplies that sewage sludge or biosolids to the owner or operator of a municipal solid waste landfill (MSWLF) for disposal, the permittee shall provide to the owner or operator of the MSWLF appropriate information needed to be in compliance with the provisions of this permit.
- C. The permittee shall give 180 days prior notice to the Executive Director in care of the Wastewater Permitting Section (MC 148) of the Water Quality Division of any change planned in the sewage sludge or biosolids disposal practice.
- D. Sewage sludge or biosolids shall be tested annually in accordance with the method specified in both 40 CFR Part 261, Appendix II and 40 CFR Part 268, Appendix I (Toxicity Characteristic Leaching Procedure) or other method, which receives the prior approval of the TCEQ for contaminants listed in Table 1 of 40 CFR § 261.24. Sewage sludge or biosolids failing this test shall be managed according to RCRA standards for generators of hazardous waste, and the waste's disposition must be in accordance with all applicable requirements for hazardous waste processing, storage, or disposal.

Following failure of any TCLP test, the management or disposal of sewage sludge or biosolids at a facility other than an authorized hazardous waste processing, storage, or disposal facility shall be prohibited until such time as the permittee can demonstrate the sewage sludge or biosolids no longer exhibits the hazardous waste toxicity characteristics (as demonstrated by the results of the TCLP tests). A written report shall be provided to both the TCEQ Registration and Reporting Section (MC 129) of the Permitting and Registration Support Division and the Regional Director (MC Region 9) of the appropriate TCEQ field office within 7 days after failing the TCLP Test.

The report shall contain test results, certification that unauthorized waste management has stopped, and a summary of alternative disposal plans that comply with RCRA standards for the management of hazardous waste. The report shall be addressed to: Director, Permitting and Registration Support Division (MC 129), Texas Commission on Environmental Quality, P. O. Box 13087, Austin, Texas 78711-3087. In addition, the permittee shall prepare an annual report on the results of all sludge toxicity testing. This annual report shall be submitted to the TCEQ Regional Office (MC Region 9) and the Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30 of each year.

- E. Sewage sludge or biosolids shall be tested as needed, in accordance with the requirements of 30 TAC Chapter 330.
- F. Record keeping Requirements

The permittee shall develop the following information and shall retain the information for five years.

- 1. The description (including procedures followed and the results) of all liquid Paint Filter Tests performed.
- 2. The description (including procedures followed and results) of all TCLP tests performed.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

G. Reporting Requirements

The permittee shall report annually to the TCEQ Regional Office (MC Region 9) and Compliance Monitoring Team (MC 224) of the Enforcement Division by September 30th of each year the following information. The permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

- 1. Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.
- 2. Toxicity Characteristic Leaching Procedure (TCLP) results.
- 3. Annual sludge or biosolids production in dry tons/year.
- 4. Amount of sludge or biosolids disposed in a municipal solid waste landfill in dry tons/year.
- 5. Amount of sludge or biosolids transported interstate in dry tons/year.
- 6. A certification that the sewage sludge or biosolids meets the requirements of 30 TAC § 330 concerning the quality of the sludge disposed in a municipal solid waste landfill.
- 7. Identity of hauler(s) and transporter registration number.
- 8. Owner of disposal site(s).
- 9. Location of disposal site(s).
- 10. Date(s) of disposal.

The above records shall be maintained on-site on a monthly basis and shall be made available to the Texas Commission on Environmental Quality upon request.

SECTION IV. REQUIREMENTS APPLYING TO SLUDGE OR BIOSOLIDS TRANSPORTED TO ANOTHER FACILITY FOR FURTHER PROCESSING

These provisions apply to sludge or biosolids that is transported to another wastewater treatment facility or facility that further processes sludge or biosolids. These provisions are intended to allow transport of sludge or biosolids to facilities that have been authorized to accept sludge or biosolids. These provisions do not limit the ability of the receiving facility to determine whether to accept the sludge or biosolids, nor do they limit the ability of the receiving facility to request additional testing or documentation.

A. General Requirements

- 1. The permittee shall handle and dispose of sewage sludge or biosolids in accordance with 30 TAC Chapter 312 and all other applicable state and federal regulations in a manner that protects public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present in the sludge.
- 2. Sludge or biosolids may only be transported using a registered transporter or using an approved pipeline.

B. Record Keeping Requirements

- 1. For sludge transported by an approved pipeline, the permittee must maintain records of the following:
 - a. the amount of sludge or biosolids transported;
 - b. the date of transport;
 - c. the name and TCEQ permit number of the receiving facility or facilities;
 - d. the location of the receiving facility or facilities;
 - e. the name and TCEQ permit number of the facility that generated the waste; and
 - f. copy of the written agreement between the permittee and the receiving facility to accept sludge or biosolids.
- 2. For sludge or biosolids transported by a registered transporter, the permittee must maintain records of the completed trip tickets in accordance with 30 TAC § 312.145(a)(1)-(7) and amount of sludge or biosolids transported.
- 3. The above records shall be maintained on-site on a monthly basis and shall be made available to the TCEQ upon request. These records shall be retained for at least five years.

C. Reporting Requirements

The permittee shall report the following information annually to the TCEQ Regional Office (MC Region 9) and Compliance Monitoring Team (MC 224) of the Enforcement Division, by September 30th of each year. The permittee must submit this annual report using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver.

- 1. Identify in the following categories (as applicable) the sewage sludge or biosolids treatment process or processes at the facility: preliminary operations (e.g., sludge or biosolids grinding and degritting), thickening (concentration), stabilization, anaerobic digestion, aerobic digestion, composting, conditioning, disinfection (e.g., beta ray irradiation, gamma ray irradiation, pasteurization), dewatering (e.g., centrifugation, sludge drying beds, sludge lagoons), heat drying, thermal reduction, and methane or biogas capture and recovery.
- 2. the annual sludge or biosolids production;
- 3. the amount of sludge or biosolids transported;
- 4. the owner of each receiving facility;
- 5. the location of each receiving facility; and
- 6. the date(s) of disposal at each receiving facility.

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OTHER REQUIREMENTS

1. The permittee shall employ or contract with one or more licensed wastewater treatment facility operators or wastewater system operations companies holding a valid license or registration according to the requirements of 30 TAC Chapter 30, Occupational Licenses and Registrations, and, in particular, 30 TAC Chapter 30, Subchapter J, Wastewater Operators and Operations Companies.

This Category B facility in the Interim phase and Category A facility in the Final phase must be operated by a chief operator or an operator holding a Class B license or higher in the Interim phase and a Class A license or higher in the Final phase. The facility must be operated a minimum of five days per week by the licensed chief operator or an operator holding the required level of license or higher. The licensed chief operator or operator holding the required level of license or higher must be available by telephone or pager seven days per week. Where shift operation of the wastewater treatment facility is necessary, each shift that does not have the on-site supervision of the licensed chief operator must be supervised by an operator in charge who is licensed not less than one level below the category for the facility.

- 2. The facility is not located in the Coastal Management Program boundary.
- 3. There is no mixing zone established for this discharge to an intermittent stream with perennial pools. Chronic toxic criteria apply at the point of discharge.
- 4. The permittee shall comply with the requirements of 30 TAC § 309.13(a) through (d). In addition, by ownership of the required buffer zone area, the permittee shall comply with the requirements of 30 TAC § 309.13(e).
- 5. The permittee shall provide facilities for the protection of its wastewater treatment facility from a 100-year flood.
- 6. In accordance with 30 TAC § 319.9, a permittee that has at least twelve months of uninterrupted compliance with its bacteria limit may notify the commission in writing of its compliance and request a less frequent measurement schedule. To request a less frequent schedule, the permittee shall submit a written request to the TCEQ Wastewater Permitting Section (MC 148) for each phase that includes a different monitoring frequency. The request must contain all of the reported bacteria values (Daily Avg. and Daily Max/Single Grab) for the twelve consecutive months immediately prior to the request. If the Executive Director finds that a less frequent measurement schedule is protective of human health and the environment, the permittee may be given a less frequent measurement schedule. For this permit, daily may be reduced to 5/week in the Interim and Final phases. A violation of any bacteria limit by a facility that has been granted a less frequent measurement schedule will require the permittee to return to the standard frequency schedule and submit written notice to the TCEQ Wastewater **Permitting Section (MC 148).** The permittee may not apply for another reduction in measurement frequency for at least 24 months from the date of the last violation. The Executive Director may establish a more frequent measurement schedule if necessary to protect human health or the environment.
- 7. Prior to construction of the treatment facilities, the permittee shall submit to the TCEQ Wastewater Permitting Section (MC 148) a summary transmittal letter in accordance with

the requirements in 30 TAC § 217.6(d). If requested by the Wastewater Permitting Section, the permittee shall submit plans, specifications, and a final engineering design report which comply with 30 TAC Chapter 217, Design Criteria for Domestic Wastewater Systems. The permittee shall clearly show how the treatment system will meet the effluent limitations required on Pages 2 and 2a of this permit. A copy of the summary transmittal letter shall be available at the plant site for inspection by authorized representatives of the TCEQ.

- 8. Reporting requirements according to 30 TAC §§ 319.1-319.11 and any additional effluent reporting requirements contained in this permit are suspended from the effective date of the permit until plant startup or discharge from the facility described by this permit, whichever occurs first. The permittee shall provide written notice to the TCEQ Regional Office (MC Region 9) and the Applications Review and Processing Team (MC 148) of the Water Quality Division at least forty-five (45) days prior to plant startup or anticipated discharge, whichever occurs first, and prior to completion of each additional phase on Notification of Completion Form 20007.
- 9. Within 120 days from the start-up of the facility, the permittee shall complete Attachment A with the analytical results for Outfall 001. The completed tables with the results of these analysis and laboratory reports shall be submitted to the Municipal Permits Team, Wastewater Permitting Section MC 148, TCEQ Water Quality Division. Based on a technical review of the submitted analytical results, an amendment may be initiated by TCEQ staff to include additional effluent limitations and/or monitoring requirements. Test methods utilized to complete the tables shall be according to the test procedures specified in the Definitions and Standard Permit Conditions section of this permit and sensitive enough to detect the parameters listed in Attachment A at the minimum analytical level (MAL).

CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS

The permittee shall operate an industrial pretreatment program in accordance with Sections 402(b)(8) and (9) of the Clean Water Act, the General Pretreatment Regulations (40 CFR Part 403), and the approved **City Bryan's** publicly owned treatment works (POTW) pretreatment program submitted by the permittee. The pretreatment program was approved on **November 4, 1982**, and modified on **June 26, 1990**, **December 6, 2004**, and **July 22, 2011** (nonsubstantial Streamlining Rule).

The POTW pretreatment program is hereby incorporated by reference and shall be implemented in a manner consistent with the following requirements:

- a. Industrial user (IU) information shall be kept current according to 40 CFR §§403.8(f)(2)(i) and (ii) and updated at a frequency set forth in the approved pretreatment program to reflect the accurate characterization of all IUs.
- b. The frequency and nature of IU compliance monitoring activities by the permittee shall be consistent with the approved POTW pretreatment program and commensurate with the character, consistency, and volume of waste. The permittee is required to inspect and sample the effluent from each significant industrial user (SIU) at least once per year, except as specified in 40 CFR §403.8(f)(2)(v). This is in addition to any industrial self-monitoring activities.
- c. The permittee shall enforce and obtain remedies for IU noncompliance with applicable pretreatment standards and requirements and the approved POTW pretreatment program.
- d. The permittee shall control through permit, order, or similar means, the contribution to the POTW by each IU to ensure compliance with applicable pretreatment standards and requirements and the approved POTW pretreatment program. In the case of SIUs (identified as significant under 40 CFR §403.3(v)), this control shall be achieved through individual permits or general control mechanisms, in accordance with 40 CFR §403.8(f)(1)(iii).

Both individual and general control mechanisms must be enforceable and contain, at a minimum, the following conditions:

- (1) Statement of duration (in no case more than five years);
- (2) Statement of non-transferability without, at a minimum, prior notification to the POTW and provision of a copy of the existing control mechanism to the new owner or operator;
- (3) Effluent limits, which may include enforceable best management practices (BMPs), based on applicable general pretreatment standards, categorical pretreatment standards, local limits, and State and local law;
- (4) Self-monitoring, sampling, reporting, notification and record keeping requirements, identification of the pollutants to be monitored (including, if applicable, the process for seeking a waiver for a pollutant neither present nor expected to be present in the IU's discharge in accordance with 40 CFR §403.12(e)(2), or a specific waived pollutant in the case of an individual control mechanism), sampling location, sampling frequency, and sample type, based on the applicable general pretreatment standards in 40 CFR Part 403, categorical pretreatment standards, local limits, and State and local law;

- (5) Statement of applicable civil and criminal penalties for violation of pretreatment standards and requirements, and any applicable compliance schedule. Such schedules may not extend the compliance date beyond federal deadlines; and
- (6) Requirements to control slug discharges, if determined by the POTW to be necessary.
- e. For those IUs who are covered by a general control mechanism, in order to implement 40 CFR §403.8(f)(1)(iii)(A)(2), a monitoring waiver for a pollutant neither present nor expected to be present in the IU's discharge is not effective in the general control mechanism until after the POTW has provided written notice to the SIU that such a waiver request has been granted in accordance with 40 CFR §403.12(e)(2).
- f. The permittee shall evaluate whether each SIU needs a plan or other action to control slug discharges, in accordance with 40 CFR §403.8(f)(2)(vi). If the POTW decides that a slug control plan is needed, the plan shall contain at least the minimum elements required in 40 CFR §403.8(f)(2)(vi).
- g. The permittee shall provide adequate staff, equipment, and support capabilities to carry out all elements of the pretreatment program.
- h. The approved program shall not be modified by the permittee without the prior approval of the Executive Director, according to 40 CFR §403.18.
- 2. The permittee is under a continuing duty to establish and enforce specific local limits to implement the provisions of 40 CFR §403.5, develop and enforce local limits as necessary, and modify the approved pretreatment program as necessary to comply with federal, state, and local law, as amended. The permittee may develop BMPs to implement 40 CFR §403.5(c)(1) and (2). Such BMPs shall be considered local limits and pretreatment standards. The permittee is required to effectively enforce such limits and to modify its pretreatment program, including the Legal Authority, Enforcement Response Plan, and Standard Operating Procedures (including forms), if required by the Executive Director to reflect changing conditions at the POTW. Substantial modifications will be approved in accordance with 40 CFR §403.18, and modifications will become effective upon approval by the Executive Director in accordance with 40 CFR §403.18.

The permittee is required to develop technically based local limits (TBLLs) for this new facility **within twelve (12) months of commencement of discharge from Outfall 001**. The permittee submitted the TBLLs package for the Thompsons Creek facility (TPDES Permit No. WQ0010429004) as a substantial modification to its approved pretreatment program on February 2, 2016, and supplemental information on February 9, 2016. The Executive Director is currently reviewing this substantial modification. The permittee shall demonstrate and certify that the TBLLs will attain the Texas Surface Water Quality Standards [30 TAC Chapter 307] in water in the state, prevent pass through of pollutants, inhibition of or interference with the treatment facility, worker health and safety problems, and sludge contamination. The technical development of the TBLLs should be developed in accordance with EPA's *Local Limit Development Guidance*, July 2004, and EPA Region 6's Technically Based Local Limits Development Guidance, October 12, 1993.

If after review of the substantial modification submission, the Executive Director determines that the submission does not comply with applicable requirements, including 40 CFR

§§403.8 and 403.9, the Executive Director will notify the permittee. According to 40 CFR §403.11(c), the notification will include suggested revisions to bring the substantial modification submission into compliance with applicable requirements, including 40 CFR §§403.8(b) and (f) and 403.9(b). In such a case, revised information will be necessary for the Executive Director to make a determination on whether to approve or deny the permittee's substantial modification submission.

Upon approval by the Executive Director of a substantial modification to this approved POTW pretreatment program, the requirement to develop and enforce specific prohibitions and/or limits to implement the prohibitions and limits set forth in 40 CFR §§403.5(a)(1), (b), (c)(1) and (3), and (d) is a condition of this permit. The specific prohibitions set out in 40 CFR §403.5(b) shall be enforced by the permittee unless modified under this provision.

3. The permittee shall analyze the treatment facility influent and effluent for the presence of the toxic pollutants listed in the Texas Surface Water Quality Standards [30 TAC Chapter 307], and 40 CFR Part 122, Appendix D, Table II at least **once per year** and the toxic pollutants listed in 40 CFR Part 122, Appendix D, Table III at least **once per three months**. If, based upon information available to the permittee, there is reason to suspect the presence of any toxic or hazardous pollutant listed in 40 CFR Part 122, Appendix D, Table V, or any other pollutant, known or suspected to adversely affect treatment plant operation, receiving water quality, or solids disposal procedures, analysis for those pollutants shall be performed at least **once per three months** on both the influent and the effluent.

The influent and effluent samples collected shall be composite samples consisting of at least 12 aliquots collected at approximately equal intervals over a representative 24-hour period and composited according to flow. Sampling and analytical procedures shall be in accordance with guidelines established in 40 CFR Part 136, as amended; as approved by the EPA through the application for alternate test procedures; or as suggested in Tables E-1 and E-2 of the *Procedures to Implement the Texas Surface Water Quality Standards* (RG-194), June 2010, as amended and adopted by the TCEQ. The effluent samples shall be analyzed to the minimum analytical level (MAL), if necessary, to determine compliance with the daily average water quality based effluent concentration from the TCEQ's Texas Toxicity Modeling Program (TEXTOX) and other applicable water quality discharge standards. Where composite samples are inappropriate due to sampling, holding time, or analytical constraints, at least four (4) grab samples shall be taken at equal intervals over a representative 24-hour period.

4. The permittee shall prepare annually a list of IUs, which during the preceding twelve (12) months were in significant noncompliance (SNC) with applicable pretreatment requirements. For the purposes of this section of the permit, "CONTRIBUTING INDUSTRIES AND PRETREATMENT REQUIREMENTS," SNC shall be determined based upon the more stringent of either criteria established at 40 CFR §403.8(f)(2)(viii) [*rev*. 10/14/05] or criteria established in the approved POTW pretreatment program. This list is to be published annually during the month of **December** in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

In addition, each **December** the permittee shall submit an updated pretreatment program annual status report, in accordance with 40 CFR §§403.12(i) [*rev.* 10/22/15] and (m), to the TCEQ Pretreatment Team (MC148) of the Water Quality Division. The report summary

shall be submitted on the Pretreatment Performance Summary (PPS) form [TCEQ-20218]. The report shall contain the following information as well as the information on the tables in this section:

- a. An updated list of all regulated IUs as indicated in this section. For each listed IU, the following information shall be included:
 - (1) Standard Industrial Classification (SIC) or North American Industry Classification System (NAICS) code *and* categorical determination.
 - (2) If the pretreatment program has been modified and approved to incorporate reduced monitoring for any of the categorical IUs as provided by 40 CFR Part 403 [*rev.* 10/14/05], then the list must also identify:
 - categorical IUs subject to the conditions for reduced monitoring and reporting requirements under 40 CFR § 403.12(e)(1) [*rev. 10/22/15*] and (3);
 - those IUs that are non-significant categorical industrial users (NSCIUs) under 40 CFR §403.3(v)(2); and
 - those IUs that are middle tier categorical industrial users (MTCIUs) under 40 CFR §403.12(e)(3).
 - (3) Control mechanism status.
 - Indicate whether the IU has an effective individual or general control mechanism, and the date such control mechanism was last issued, reissued, or modified;
 - Indicate which IUs were added to the system, or newly identified, during the pretreatment year reporting period;
 - Include the type of general control mechanisms; and
 - Report all NSCIU annual evaluations performed, as applicable.
 - (4) A summary of all compliance monitoring activities performed by the POTW during the pretreatment year reporting period. The following information shall be reported:
 - Total number of inspections performed; and
 - Total number of sampling events conducted.
 - (5) Status of IU compliance with effluent limitations, reporting, and narrative standard (which may include enforceable BMPs, narrative limits, and/or operational standards) requirements. Compliance status shall be defined as follows:
 - Compliant (C) no violations during the pretreatment year reporting period;

- Non-compliant (NC) one or more violations during the pretreatment year reporting period but does not meet the criteria for SNC; and
- Significant Noncompliance (SNC) in accordance with requirements described above in this section.
- (6) For noncompliant IUs, indicate the nature of the violations, the type and number of actions taken (notice of violation, administrative order, criminal or civil suit, fines or penalties collected, etc.), and the current compliance status. If any IU was on a schedule to attain compliance with effluent limits or narrative standards, indicate the date the schedule was issued and the date compliance is to be attained.
- b. A list of each IU whose authorization to discharge was terminated or revoked during the pretreatment year reporting period and the reason for termination.
- c. A report on any interference, pass through, Act of God, or POTW permit violations known or suspected to be caused by IUs and response actions taken by the permittee.
- d. The results of all influent and effluent analyses performed pursuant to Item 3 of this section.
- e. An original newspaper public notice, or copy of the newspaper publication with official affidavit, of the list of IUs that meet the criteria of SNC, giving the name of the newspaper and date the list was published.
- f. The daily average water quality based effluent concentrations (from the TCEQ's Texas Toxicity Modeling Program (TexTox)) necessary to attain the Texas Surface Water Quality Standards, 30 TAC Chapter 307, in water in the state.
- g. The maximum allowable headworks loading (MAHL) in pounds per day (lb/day) of the approved TBLLs or for each pollutant of concern (POC) for which the permittee has calculated a MAHL. In addition, the influent loading as a percent of the MAHL, using the annual average flow of the wastewater treatment plant in million gallons per day (MGD) during the pretreatment year reporting period, for each pollutant that has an adopted TBLL or for each POC for which the permittee has calculated a MAHL. (*See Endnotes No. 2 at the end of this section for the influent loading as a percent of the MAHL equation.*)
- h. The permittee may submit the updated pretreatment program annual status report information in tabular form using the example table format provided. Please attach, on a separate sheet, explanations to document the various pretreatment activities, including IU permits that have expired, BMP violations, and any sampling events that were not conducted by the permittee as required.
- i. A summary of changes to the POTW's approved pretreatment program that have not been previously reported to the Approval Authority.

Effective December 21, 2023, the permittee must submit the updated pretreatment program annual status report required by this section electronically using the online electronic reporting system available through the TCEQ website unless the permittee requests and

obtains an electronic reporting waiver. [*rev. Federal Register/ Vol. 80/ No. 204/ Friday, October 22, 2015/ Rules and Regulations, pages 64064-64158*].

- 5. The permittee shall provide adequate written notification to the Executive Director, care of the Wastewater Permitting Section (MC 148) of the Water Quality Division, within 30 days of the permittee's knowledge of the following:
 - a. Any new introduction of pollutants into the treatment works from an indirect discharger that would be subject to Sections 301 and 306 of the Clean Water Act, if the indirect discharger was directly discharging those pollutants; and
 - b. Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of the permit.

Adequate notice shall include information on the quality and quantity of effluent to be introduced into the treatment works and any anticipated impact of the change on the quality or quantity of effluent to be discharged from the POTW.

Revised June 2020

TPDES Pretreatment Program Annual Report Form for Updated Industrial Users List

Reporting month/year: _____, ____ to _____, ____

TPDES Permit No.: Permittee: Treatment Plant:

PRETREATMENT PROGRAM STATUS REPORT UPDATED INDUSTRIAL USERS ¹ LIST																
ə	CONTROL MECHANISM					CONTROL					C = (uring t Re Compli	PLIAN he Pret porting ant, NC ificant	reatme g Perioc C = Nor	ent Yea 14 1comp	oliant,
r Name	Code			· NR			or N)	ed by the	l by th		RI	EPORT	S		~	
Industrial User	SIC or NAICS Code	CIU ²	Y/N or NR5	IND or GEN or NR	Last Action ⁶	TBLLs or TBLLs only ⁷	New User ³ (Y	Times Inspected	Times Sampled by the	BMR	90-Day	Semi- Annual	Self- Monitoring ⁸	NSCIU Certifications	Effluent Limits	Narrative Standards

- Include all significant industrial users (SIUs), non-significant categorical industrial users (NSCIUs) as 1 defined in 40 CFR §403.3(v)(2), and/or middle tier categorical industrial users (MTCIUs) as defined in 40 CFR §403.12(e)(3). Please do not include non-significant noncategorical IUs that are covered under best management practices (BMPs) or general control mechanisms.
- Categorical determination (include 40 CFR citation and NSCIU or MTCIU status, if applicable). 2
- Indicate whether the IU is a new user. If the answer is No or N, then indicate the expiration date of the 3 last issued IU permit.
- The term SNC applies to a broader range of violations, such as daily maximum, long-term average, 4 instantaneous limits, and narrative standards (which may include enforceable BMPs, narrative limits and/or operational standards). Any other violation, or group of violations, which the POTW determines will adversely affect the operation or implementation of the local Pretreatment Program now includes BMP violations (40 CFR §403.8(f)(2)(viii)(H)).
- Code NR= None required (NSCIUs only); IND = individual control mechanism; GEN = general control 5 mechanism. Include as a footnote (or on a separate page) the name of the general control mechanism used for similar groups of IUs, identify the similar types of operations and types of wastes that are the same for each general control mechanism. Any BMPs through general control mechanisms that are applied to nonsignificant IUs need to be reported separately, *e.g.* the sector type and BMP description.
- Permit or NSCIU evaluations as applicable. 6
- According to 40 CFR §403.12(i)(1), indicate whether the IU is subject to technically based local limits 7 (TBLLs) that are more stringent than categorical pretreatment standards, e.g. where there is one endof-pipe sampling point at a CIU, and you have determined that the TBLLs are more stringent than the categorical pretreatment standards for any pollutant at the end-of-pipe sampling point; **OR** the IU is subject only to local limits (TBLLs only), e.g. the IU is a non-categorical SIU subject only to TBLLs at the end-of-pipe sampling point.
- 8 For those IUs where a monitoring waiver has been granted, please add the code "W" (after either C, NC, or SNC codes) and indicate the pollutant(s) for which the waiver has been granted.

TPDES Pretreatment Program Annual Report Form *Revised* July 2007 TCEO-20218a

TPDES Pretreatment Program Annual Report Form for Industrial User Inventory Modifications

Reporting month/year: _____, ____ to _____, ____

 TPDES Permit No:
 Permittee:
 Treatment Plant:

	INDUST	RIAL USER I	NVENTORY MC	DIFICATIONS	
FACILITY NAME,	ADD, CHANGE,	IF DELETION:	IF ADDITIC	ON OR SIGNIFICA	ANT CHANGE:
ADDRESS AND CONTACT PERSON	DELETE (Including categorical reclassification to NSCIU or MTCIU)	Reason For Deletion	PROCESS DESCRIPTION	POLLUTANTS (Including any sampling waiver given for each pollutant not present)	FLOW RATE ⁹ (In gpd) R = Regulated U = Unregulated T = Total

9 For NSCIUs, total flow must be given, if regulated flow is not determined.

TCEQ-20218b TPDES Pretreatment Program Annual Report Form

Revised July 2007

TPDES Pretreatment Program Annual Report Form for Enforcement Actions Taken

Reporting month/year: _____, ____ to _____, ____

 TPDES Permit No:
 Permittee:
 Treatment Plant:

Overall SNC ___% SNC ¹⁰ based on: Effluent Violations___% Reporting Violations___% Narrative Standard Violations__%

Noncompliant Industrial Users - Enforcement Actions Taken															
	Nature of Violation 11				Number of Actions Taken					d (Do arge)	Compliance Schedule			Returned (Y or N)	
Industrial User Name	Effluent Limits	Reports	NSCIU Certifications	Narrative Standards	NOV	A.O.	Civil	Criminal	Other	Penalties Collected (Do not Include Surcharge)	Y or N	Date Issued Date Due	Date Due	Current Status Re to Compliance: (Y	Comments

10 <u># %</u>

Pretreatment Standards [WENDB-PSNC] (Local Limits/Categorical Standards)

_____ Reporting Requirements [WENDB-PSNC]

_____ Narrative Standards

11 Please specify a separate number for each type of violation, *e.g.* report, notification, and/or NSCIU certification.

TCEQ-20218c TPDES Pretreatment Program Annual Report Form Revised July 2007

TPDES Pretreatment Program Annual Report Form for Influent and Effluent Monitoring Results¹

Reporting month/year: _____, ____ to _____, ____

 TPDES Permit No.:
 Permittee:
 Treatment Plant:

PRETREATMENT PROGRAM INFLUENT AND EFFLUENT MONITORING RESULTS

		·						. <u></u>			
POLLUTANT	MAHL, if Applicable in lb/day			d in µg ncentra		Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³	Effluent Measured in μg/L (Actual Concentratio or < MAL) 4			
	-	Date	Date	Date	Date			Date	Date	Date	Date
METALS, CYANIDE AND PHI	ENOLS										
Antimony, Total											
Arsenic, Total											
Beryllium, Total											
Cadmium, Total											
Chromium, Total											
Chromium (Hex)											
Chromium (Tri)₅											
Copper, Total											
Lead, Total											
Mercury, Total											
Nickel, Total											
Selenium, Total											
Silver, Total											
Thallium, Total											
Zinc, Total											

PRETREATMENT P	ROGRAM IN	NFLUI	ENT A	ND E	FFLU	ENT MO	NITORIN	G RES	SULTS	6	
POLLUTANT	MAHL, if Applicable in lb/day	Influent Measured in μg/L (Actual Concentration or < MAL)				Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³	(Actual Concentration			
		Date	Date	Date	Date			Date	Date	Date	Date
Cyanide, Available ⁶											
Cyanide, Total											
Phenols, Total											
VOLATILE COMPOUNDS	•										
Acrolein											
Acrylonitrile											
Benzene											
Bromoform				_			See TTHM				
Carbon Tetrachloride											
Chlorobenzene											
Chlorodibromomethane							See TTHM				
Chloroethane											
2-Chloroethylvinyl Ether											
Chloroform							See TTHM				
Dichlorobromomethane							See TTHM				
1,1-Dichloroethane											
1,2-Dichloroethane											
1,1-Dichloroethylene											
1,2-Dichloropropane											

PRETREATMENT	PROGRAM IN	IFLU	ENT A	ND E	FFLU	ENT MO	NITORIN	G RES	SULTS	6		
POLLUTANT	MAHL, if Applicable in lb/day		easure ual Coi			Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³	Effluent Measured in μg/L (Actual Concentration or < MAL) ⁴				
		Date	Date	Date	Date			Date	Date	Date	Date	
1,3-Dichloropropylene												
Ethyl benzene												
Methyl Bromide												
Methyl Chloride												
Methylene Chloride												
1,1,2,2-Tetra-chloroethane												
Tetrachloroethylene												
Toluene												
1,2-Trans-Dichloroethylene												
1,1,1-Trichloroethane												
1,1,2-Trichloroethane												
Trichloroethylene												
Vinyl Chloride												
ACID COMPOUNDS				•	-		•		•	•		
2-Chlorophenol												
2,4-Dichlorophenol												
2,4-Dimethylphenol												
4,6-Dinitro-o-Cresol												
2,4-Dinitrophenol												
2-Nitrophenol												

PRETREATMENT F	PROGRAM IN	IFLU	ENT A	ND E	FFLU	ENT MO	NITORIN	G RES	SULTS	6		
POLLUTANT	MAHL, if Applicable in lb/day		easure ual Coi			Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³	Effluent Measured in μg/L (Actual Concentration or < MAL) ⁴				
		Date	Date	Date	Date			Date	Date	Date	Date	
4-Nitrophenol												
P-Chloro-m-Cresol												
Pentachlorophenol												
Phenol												
2,4,6-Trichlorophenol												
BASE/NEUTRAL COMPOUN	DS	0	1		8	1				<u>n</u>	1	
Acenaphthene												
Acenaphthylene												
Anthracene												
Benzidine												
Benzo(a)Anthracene												
Benzo(a)Pyrene												
3,4-Benzofluoranthene												
Benzo(ghi)Perylene												
Benzo(k)Fluoranthene												
Bis(2-Chloroethoxy)Methane												
Bis(2-Chloroethyl)Ether												
Bis(2-Chloroisopropyl)Ether												
Bis(2-Ethylhexyl)Phthalate												
4-Bromophenyl Phenyl Ether												

PRETREATMENT	PROGRAM IN	IFLU	ENT A	ND E	FFLU	ENT MO	NITORIN	G RES	SULTS	6		
POLLUTANT	MAHL, if Applicable in lb/day		easure ual Co			Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³	Effluent Measured in µg/L (Actual Concentration or < MAL) ⁴				
		Date	Date	Date	Date			Date	Date	Date	Date	
Butylbenzyl Phthalate												
2-Chloronaphthalene												
4-Chlorophenyl Phenyl Ether												
Chrysene												
Dibenzo(a,h)Anthracene												
1,2-Dichlorobenzene												
1,3-Dichlorobenzene												
1,4-Dichlorobenzene												
3,3-Dichlorobenzidine												
Diethyl Phthalate												
Dimethyl Phthalate												
Di-n-Butyl Phthalate												
2,4-Dinitrotoluene												
2,6-Dinitrotoluene												
Di-n-Octyl Phthalate												
1,2-Diphenyl Hydrazine												
Fluoranthene												
Fluorene												
Hexachlorobenzene												
Hexachlorobutadiene												

PRETREATMENT P	ROGRAM IN	IFLU	ENT A	ND E	FFLU	ENT MOI	NITORIN	G RES	SULTS	6	
POLLUTANT	MAHL, if Applicable in lb/day		Influe easure ual Con or < 1	d in µg ncentra		Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³		easure ual Coi		ation
		Date	Date	Date	Date			Date	Date	Date	Date
Hexachloro- cyclopentadiene											
Hexachloroethane											
Indeno(1,2,3-cd)pyrene											
Isophorone											
Naphthalene											
Nitrobenzene											
N-Nitrosodimethylamine											
N-Nitrosodi-n-Propylamine											
N-Nitrosodiphenylamine											
Phenanthrene											
Pyrene											
1,2,4-Trichlorobenzene											
PESTICIDES		L	1	. <u> </u>				<u>. </u>			
Aldrin											
Alpha-hexachlorocyclohexane (BHC)											
beta-BHC											
gamma-BHC (Lindane)											
delta-BHC											
Chlordane											
4,4-DDT											

PRETREATMENT P	PROGRAM IN	IFLUI	ENT A	ND E	FFLU	ENT MO	NITORIN	G RES	SULTS	6		
POLLUTANT	LLUTANT MAHL, if Applicable in lb/day				5/L ation	Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³	Effluent Measured in μg/L (Actual Concentration or < MAL) ⁴				
		Date	Date	Date	Date			Date	Date	Date	Date	
4,4-DDE												
4,4-DDD												
Dieldrin												
alpha-Endosulfan												
beta-Endosulfan												
Endosulfan Sulfate												
Endrin												
Endrin Aldehyde												
Heptachlor												
Heptachlor Epoxide	1											
Polychlorinated biphenols (PCBs) The sum of PCB concentrations not to exceed daily average value.												
PCB-1242							See PCBs					
PCB-1254							See PCBs					
PCB-1221							See PCBs					
PCB-1232							See PCBs					
PCB-1248							See PCBs					
PCB-1260							See PCBs			<u></u>		
PCB-1016							See PCBs					

PRETREATMENT P	ROGRAM IN	NFLU	ENT A	ND E	FFLU	ENT MO	NITORIN	G RES	SULTS	5			
POLLUTANT	MAHL, if Applicable in lb/day	Influent Measured in μg/L (Actual Concentration or < MAL)				Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³		easure	ncentra	in µg/L centration		
		Date	Date	Date	Date			Date	Date	Date	Date		
Toxaphene													
ADDITIONAL TOXIC POLLU	ULAT	ED U	NDER	k 30 T	AC CHAP	TER 307		-	-				
Aluminum													
Barium													
Bis(chloromethyl)ether 7													
Carbaryl													
Chloropyrifos													
Cresols													
2,4-D													
Danitol ⁸													
Demeton													
Diazinon													
Dicofol													
Dioxin/Furans 9													
Diuron													
Epichlorohydrin 9													
Ethylene glycol 9													
Fluoride													
Guthion													
Hexachlorophene													

PRETREATMENT P	ROGRAM IN	IFLUI	ENT A	ND E	FFLU	ENT MO	NITORIN	G RES			
POLLUTANT	MAHL, if Applicable in lb/day		easure ual Coi			Average Influent % of the MAHL ²	Daily Average Effluent Limit (µg/L) ³	Effluent Measured in μg/L (Actual Concentration or < MAL) ⁴			
		Date	Date	Date	Date			Date	Date	Date	Date
4,4'- Isoproplidenediphenolediphenol (biphenol A) 9											
Malathion											
Methoxychlor											
Methyl Ethyl Ketone											
Methyl tert-butyl-ether (MTBE) 9											
Mirex											
Nitrate-Nitrogen											
N-Nitrosodiethylamine											
N-Nitroso-di-n-Butylamine											
Nonylphenol											
Parathion											
Pentachlorobenzene											
Pyridine											
1,2-Dibromoethane											
1,2,4,5-Tetrachlorobenzene											
2,4,5-TP (Silvex)				•							
Tributyltin 9											
2,4,5-Trichlorophenol											
TTHM (Total Trihalomethanes)											

Endnotes:

- 1. It is advised that the permittee collect the influent and effluent samples considering flow detention time through each wastewater treatment plant (WWTP).
- The MAHL of the approved TBLLs or for each pollutant of concern (POC) for which the permittee has 2. calculated a MAHL. Only complete the column labeled "Average Influent % of the MAHL," as a percentage, for pollutants that have approved TBLLs or for each POC for which the permittee has calculated a MAHL (U.S. Environmental Protection Agency Local Limits Development Guidance, July 2004, EPA933-R-04-002A).

The % of the MAHL is to be calculated using the following formulas:

Equation A: $L_{INF} = (C_{POLL} \times Q_{WWTP} \times 8.34) / 1000$

Equation B: $L_{\%} = (L_{INF} / MAHL) \times 100$

Where:	
$L_{INF} =$	Current Ave

where.	
$L_{INF} =$	Current Average (Avg) influent loading in lb/day
$C_{POLL} =$	Avg concentration in μ g/L of all influent samples collected during the
	pretreatment year.
$Q_{WWTP} =$	Annual average flow of the WWTP in MGD, defined as the arithmetic
	average of all daily flow determinations taken within the preceding 12
	consecutive calendar months (or during the pretreatment year), and as
	described in the Definitions and Standard Permit Conditions section.
L% =	% of the MAHL
MAHL =	Calculated MAHL in lb/day
8.34 =	Unit conversion factor

- 3. Daily average effluent limit (metal values are for total metals) as derived by the Texas Toxicity Modeling Program (TexTox). Effluent limits as calculated are designed to be protective of the Texas Surface Water Quality Standards. The permittee shall determine and indicate which effluent limit is the most stringent between the 30 TAC Chapter 319, Subchapter B (Hazardous Metals) limit, TexTox values, or any applicable limit in the Effluent Limitations and Monitoring Requirements Section of this TPDES permit. Shaded blocks need not be filled in unless the permittee has received a permit requirement/limit for the particular parameter.
- 4. Minimum analytical levels (MALs) and analytical methods as suggested in Tables E-1 and E-2 of the Procedures to Implement the Texas Surface Water Quality Standards (June 2010), as amended and adopted by the TCEO. Pollutants that are not detectable above the MAL need to be reported as less than (<) the MAL numeric value.
- Report result by subtracting Hexavalent Chromium from Total Chromium. 5.
- Either the method for Amenable to Chlorination or Weak-Acid Dissociable is authorized. 6.
- Hydrolyzes in water. Will not require permittee to analyze at this time. 7.
- EPA procedure not approved. Will not require permittee to analyze at this time. 8.
- 9. Analyses are not required at this time for these pollutants unless there is reason to believe that these pollutants may be present.

TCEO-20218d TPDES Pretreatment Program Annual Report Form

Revised February 2020

BIOMONITORING REQUIREMENTS

CHRONIC BIOMONITORING REQUIREMENTS: FRESHWATER

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

- 1. <u>Scope, Frequency, and Methodology</u>
 - a. The permittee shall test the effluent for toxicity in accordance with the provisions below. Such testing will determine if an appropriately dilute effluent sample adversely affects the survival, reproduction, or growth of the test organisms.
 - b. The permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified in this part of this permit and in accordance with "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms," fourth edition (EPA-821-R-02-013) or its most recent update:
 - 1) Chronic static renewal survival and reproduction test using the water flea (*Ceriodaphnia dubia*) (Method 1002.0). This test should be terminated when 60% of the surviving adults in the control produce three broods or at the end of eight days, whichever occurs first. This test shall be conducted once per quarter.
 - 2) Chronic static renewal 7-day larval survival and growth test using the fathead minnow (*Pimephales promelas*) (Method 1000.0). A minimum of five replicates with eight organisms per replicate shall be used in the control and in each dilution. This test shall be conducted once per quarter.

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

- c. The permittee shall use five effluent dilution concentrations and a control in each toxicity test. These effluent dilution concentrations are 32%, 42%, 56%, 75%, and 100% effluent. The critical dilution, defined as 100% effluent, is the effluent concentration representative of the proportion of effluent in the receiving water during critical low flow or critical mixing conditions.
- d. This permit may be amended to require a WET limit, a chemical-specific effluent limit, a best management practice, or other appropriate actions to address toxicity. The permittee may be required to conduct a toxicity reduction evaluation (TRE) after multiple toxic events.
- e. Testing Frequency Reduction
 - 1) If none of the first four consecutive quarterly tests demonstrates significant toxicity, the permittee may submit this information in writing and, upon approval, reduce the testing frequency to once per six months

for the invertebrate test species and once per year for the vertebrate test species.

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

2. <u>Required Toxicity Testing Conditions</u>

- a. Test Acceptance The permittee shall repeat any toxicity test, including the control and all effluent dilutions, which fail to meet the following criteria:
 - 1) a control mean survival of 80% or greater;
 - 2) a control mean number of water flea neonates per surviving adult of 15 or greater;
 - 3) a control mean dry weight of surviving fathead minnow larvae of 0.25 mg or greater;
 - 4) a control coefficient of variation percent (CV%) of 40 or less in between replicates for the young of surviving females in the water flea test; and the growth and survival endpoints in the fathead minnow test;
 - 5) a critical dilution CV% of 40 or less for the young of surviving females in the water flea test; and the growth and survival endpoints for the fathead minnow test. However, if statistically significant lethal or nonlethal effects are exhibited at the critical dilution, a CV% greater than 40 shall not invalidate the test;
 - 6) a percent minimum significant difference of 47 or less for water flea reproduction; and
 - 7) a percent minimum significant difference of 30 or less for fathead minnow growth.
- b. Statistical Interpretation
 - 1) For the water flea survival test, the statistical analyses used to determine if there is a significant difference between the control and an effluent dilution shall be the Fisher's exact test as described in the manual referenced in in Part 1.b.
 - 2) For the water flea reproduction test and the fathead minnow larval survival and growth tests, the statistical analyses used to determine if there is a significant difference between the control and an effluent dilution shall be in accordance with the manual referenced in Part 1.b..
 - 3) The permittee is responsible for reviewing test concentration-response

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

- 4) If significant lethality is demonstrated (that is, there is a statistically significant difference in survival at the critical dilution when compared to the survival in the control), the conditions of test acceptability are met, and the survival of the test organisms are equal to or greater than 80% in the critical dilution and all dilutions below that, then the permittee shall report a survival No Observed Effect Concentration (NOEC) of not less than the critical dilution for the reporting requirements.
- 5) The NOEC is defined as the greatest effluent dilution at which no significant effect is demonstrated. The Lowest Observed Effect Concentration (LOEC) is defined as the lowest effluent dilution at which a significant effect is demonstrated. A significant effect is defined as a statistically significant difference between the survival, reproduction, or growth of the test organism in a specified effluent dilution when compared to the survival, reproduction, or growth of the test organism in the control (0% effluent).
- 6) The use of NOECs and LOECs assumes either a monotonic (continuous) concentration-response relationship or a threshold model of the concentration-response relationship. For any test result that demonstrates a non-monotonic (non-continuous) response, the NOEC should be determined based on the guidance manual referenced in Item 3.
- 7) Pursuant to the responsibility assigned to the permittee in Part 2.b.3), test results that demonstrate a non-monotonic (non-continuous) concentration-response relationship may be submitted, prior to the due date, for technical review. The guidance manual referenced in Item 3 will be used when making a determination of test acceptability.
- 8) TCEQ staff will review test results for consistency with rules, procedures, and permit requirements.
- c. Dilution Water
 - 1) Dilution water used in the toxicity tests must be the receiving water collected at a point upstream of the discharge point as close as possible to the discharge point but unaffected by the discharge. Where the toxicity tests are conducted on effluent discharges to receiving waters that are classified as intermittent streams, or where the toxicity tests are conducted on effluent discharges where no receiving water is available due to zero flow conditions, the permittee shall:
 - a) substitute a synthetic dilution water that has a pH, hardness, and alkalinity similar to that of the closest downstream perennial water unaffected by the discharge; or

- b) use the closest downstream perennial water unaffected by the discharge.
- 2) Where the receiving water proves unsatisfactory as a result of pre-existing instream toxicity (i.e. fails to fulfill the test acceptance criteria of Part 2.a.), the permittee may substitute synthetic dilution water for the receiving water in all subsequent tests provided the unacceptable receiving water test met the following stipulations:
 - a) a synthetic lab water control was performed (in addition to the receiving water control) which fulfilled the test acceptance requirements of Part 2.a;
 - b) the test indicating receiving water toxicity was carried out to completion (i.e., 7 days); and
 - c) the permittee submitted all test results indicating receiving water toxicity with the reports and information required in Part 3.
- 3) The synthetic dilution water shall consist of standard, moderately hard, reconstituted water. Upon approval, the permittee may substitute other appropriate dilution water with chemical and physical characteristics similar to that of the receiving water.
- d. Samples and Composites
 - 1) The permittee shall collect a minimum of three composite samples from Outfall 001. The second and third composite samples will be used for the renewal of the dilution concentrations for each toxicity test.
 - 2) The permittee shall collect the composite samples such that the samples are representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged on an intermittent basis.
 - 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the first composite sample. The holding time for any subsequent composite sample shall not exceed 72 hours. Samples shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.
 - 4) If Outfall 001 ceases discharging during the collection of effluent samples, the minimum number of effluent portions, and the sample holding time are waived during that sampling period. However, the permittee must have collected an effluent composite sample volume sufficient to complete the required toxicity tests with renewal of the effluent. When possible, the effluent samples used for the toxicity tests shall be collected on separate days if the discharge occurs over multiple days. The sample collection duration and the static renewal protocol associated with the abbreviated sample collection must be documented in the full report.

5) The effluent samples shall not be dechlorinated after sample collection.

3. <u>Reporting</u>

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

- a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated whether carried to completion or not.
- b. The permittee shall routinely report the results of each biomonitoring test on the Table 1 forms provided with this permit.
 - 1) Annual biomonitoring test results are due on or before January 20th for biomonitoring conducted during the previous 12-month period.
 - 2) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.
 - 3) Quarterly biomonitoring test results are due on or before April 20th, July 20th, October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.
 - 4) Monthly biomonitoring test results are due on or before the 20th day of the month following sampling.
- c. Enter the following codes for the appropriate parameters for valid tests only:
 - 1) For the water flea, Parameter TLP3B, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
 - 2) For the water flea, Parameter TOP3B, report the NOEC for survival.
 - 3) For the water flea, Parameter TXP3B, report the LOEC for survival.
 - 4) For the water flea, Parameter TWP3B, enter a "1" if the NOEC for reproduction is less than the critical dilution; otherwise, enter a "0."
 - 5) For the water flea, Parameter TPP3B, report the NOEC for reproduction.
 - 6) For the water flea, Parameter TYP3B, report the LOEC for reproduction.
 - 7) For the fathead minnow, Parameter TLP6C, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
 - 8) For the fathead minnow, Parameter TOP6C, report the NOEC for survival.
 - 9) For the fathead minnow, Parameter TXP6C, report the LOEC for survival.

- 10) For the fathead minnow, Parameter TWP6C, enter a "1" if the NOEC for growth is less than the critical dilution; otherwise, enter a "0."
- 11) For the fathead minnow, Parameter TPP6C, report the NOEC for growth.
- 12) For the fathead minnow, Parameter TYP6C, report the LOEC for growth.
- d. Enter the following codes for retests only:
 - 1) For retest number 1, Parameter 22415, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."
 - 2) For retest number 2, Parameter 22416, enter a "1" if the NOEC for survival is less than the critical dilution; otherwise, enter a "0."

4. <u>Persistent Toxicity</u>

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

- a. The permittee shall conduct a total of 2 additional tests (retests) for any species that demonstrates a significant effect (lethal or sublethal) at the critical dilution. The two retests shall be conducted monthly during the next two consecutive months. The permittee shall not substitute either of the two retests in lieu of routine toxicity testing. All reports shall be submitted within 20 days of test completion. Test completion is defined as the last day of the test.
- b. If the retests are performed due to a demonstration of significant lethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5. The provisions of Part 4.a. are suspended upon completion of the two retests and submittal of the TRE action plan and schedule defined in Part 5.

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

- c. If the two retests are performed due to a demonstration of significant sublethality, and one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall again perform two retests as stipulated in Part 4.a.
- d. If the two retests are performed due to a demonstration of significant sublethality, and neither test demonstrates significant lethality, the permittee shall continue testing at the quarterly frequency.
- e. Regardless of whether retesting for lethal or sublethal effects, or a combination of the two, no more than one retest per month is required for a species.

5. <u>Toxicity Reduction Evaluation</u>

- a. Within 45 days of the retest that demonstrates significant lethality, or within 45 days of being so instructed due to multiple toxic events, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.
- b. Within 90 days of the retest that demonstrates significant lethality, or within 90 days of being so instructed due to multiple toxic events, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall specify the approach and methodology to be used in performing the TRE. A TRE is a step-wise investigation combining toxicity testing with physical and chemical analyses to determine actions necessary to eliminate or reduce effluent toxicity to a level not effecting significant lethality at the critical dilution. The TRE action plan shall describe an approach for the reduction or elimination of lethality for both test species defined in Part 1.b. At a minimum, the TRE action plan shall include the following:
 - Specific Activities The TRE action plan shall specify the approach the 1) permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I" (EPA/600/6-91/005F) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;
 - 2) Sampling Plan The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures, and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects a specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;
 - 3) Quality Assurance Plan The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and

mechanisms to detect artifactual toxicity; and

- 4) Project Organization The TRE action plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.
- c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.
- d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly reports are due on or before April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:
 - 1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;
 - 2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;
 - 3) any data and substantiating documentation which identifies the pollutant(s) and source of effluent toxicity;
 - 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
 - 5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to meet no significant lethality at the critical dilution; and
 - 6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.
- e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.
- f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive months with at least monthly testing. At the end of the 12 months, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

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

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

- g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 28 months from the last test day of the retest that confirmed significant lethal effects at the critical dilution. The permittee may petition the Executive Director (in writing) for an extension of the 28-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE. The report shall provide information pertaining to the specific control mechanism selected that will, when implemented, result in the reduction of effluent toxicity to no significant lethality at the critical dilution. The report shall also provide a specific corrective action schedule for implementing the selected control mechanism.
- h. Based on the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements, where necessary, require a compliance schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and specify a chemical-specific limit.
- i. Copies of any and all required TRE plans and reports shall also be submitted to the U.S. EPA Region 6 office, 6WQ-PO.

TABLE 1 (SHEET 1 OF 4) BIOMONITORING REPORTING CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION

		Date	Time		Date	Time	
Dates and Times	No. 1 FROM: _			_ TO:			
Composites Collected	No. 2 FROM:			_ TO:			
	No. 3 FROM:_			_ TO:			
Test initiated:			am/pm _				date
		Deee			Oth at:	م تابيا	

Dilution water used: ______ Receiving water ______ Synthetic Dilution water

NUMBER OF YOUNG PRODUCED PER ADULT AT END OF TEST

		Percent effluent									
REP	0%	32%	42%	56%	75%	100%					
А											
В											
С											
D											
E											
F											
G											
Н											
Ι											
J											
Survival Mean											
Total Mean											
CV%*											
PMSD											

*Coefficient of Variation = standard deviation x 100/mean (calculation based on young of the surviving adults)

Designate males (M), and dead females (D), along with number of neonates (x) released prior to death.

TABLE 1 (SHEET 2 OF 4)

CERIODAPHNIA DUBIA SURVIVAL AND REPRODUCTION TEST

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

Is the mean number of young produced per adult significantly less than the number of young per adult in the control for the % effluent corresponding to significant nonlethal effects?

CRITICAL DILUTION (100%): _____YES ____NO

PERCENT SURVIVAL

	Percent effluent							
Time of Reading	0%	32%	42%	56%	75%	100%		
24h								
48h								
End of Test								

2. Fisher's Exact Test:

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

CRITICAL DILUTION (100%): _____YES ____NO

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

a.) NOEC survival = ____% effluent

b.) LOEC survival = ____% effluent

c.) NOEC reproduction = ____% effluent

d.) LOEC reproduction = ____% effluent

TABLE 1 (SHEET 3 OF 4)

BIOMONITORING REPORTING

FATHEAD MINNOW LARVAE GROWTH AND SURVIVAL

		Date	Time		Date	Time	
Dates and Times Composites	No. 1 FROM: _			TO:			
Collected	No. 2 FROM:			TO:			
	No. 3 FROM:			TO: _			
Test initiated: _			am/pm	l			_date
Dilution wat	er used:	Recei	iving water		_Synthetic	e dilution	water

FATHEAD MINNOW GROWTH DATA

Effluent	Avera	ge Dry We	Mean Dry	CV%*			
Concentration	Α	В	C	D	E	Weight	
0%							
32%							
42%							
56%							
75%							
100%							
PMSD							

* Coefficient of Variation = standard deviation x 100/mean

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

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

CRITICAL DILUTION (100%): _____ YES _____ NO

TABLE 1 (SHEET 4 OF 4)

BIOMONITORING REPORTING

FATHEAD MINNOW GROWTH AND SURVIVAL TEST

FATHEAD MINNOW SURVIVAL DATA

Effluent	Percei	ercent Survival in replicate chambers				Mean percent survival			CV%*
Concentration	Α	В	C	D	E	24h	48h	7 day	
0%									
32%									
42%									
56%									
75%									
100%									

* Coefficient of Variation = standard deviation x 100/mean

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

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

CRITICAL DILUTION (100%): _____ YES _____ NO

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

a.) NOEC survival = ____% effluent

b.) LOEC survival = ____% effluent

- c.) NOEC growth = ____% effluent
- d.) LOEC growth = ____% effluent

24-HOUR ACUTE BIOMONITORING REQUIREMENTS: FRESHWATER

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

- 1. <u>Scope, Frequency, and Methodology</u>
 - a. The permittee shall test the effluent for lethality in accordance with the provisions in this section. Such testing will determine compliance with Texas Surface Water Quality Standard 30 TAC § 307.6(e)(2)(B), which requires greater than 50% survival of the appropriate test organisms in 100% effluent for a 24-hour period.
 - b. The toxicity tests specified shall be conducted once per six months. The permittee shall conduct the following toxicity tests using the test organisms, procedures, and quality assurance requirements specified in this section of the permit and in accordance with "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms," fifth edition (EPA-821-R-02-012) or its most recent update:
 - 1) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.
 - 2) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*). A minimum of five replicates with eight organisms per replicate shall be used in the control and each dilution.

A valid test result must be submitted for each reporting period. The permittee must report, and then repeat, an invalid test during the same reporting period. The repeat test shall include the control and the 100% effluent dilution and use the appropriate number of organisms and replicates, as specified above. An invalid test is defined as any test failing to satisfy the test acceptability criteria, procedures, and quality assurance requirements specified in the test methods and permit.

- c. In addition to an appropriate control, a 100% effluent concentration shall be used in the toxicity tests. Except as discussed in item 2.b., the control and dilution water shall consist of standard, synthetic, moderately hard, reconstituted water.
- d. This permit may be amended to require a WET limit, a Best Management Practice (BMP), Chemical-Specific (CS) limits, or other appropriate actions to address toxicity. The permittee may be required to conduct a Toxicity Reduction Evaluation after multiple toxic events.
- e. As the dilution series specified in the Chronic Biomonitoring Requirements includes a 100% effluent concentration, the results from those tests may fulfill the requirements of this Section; any tests performed in the proper time interval may be substituted. Compliance will be evaluated as specified in item a. The 50% survival in 100% effluent for a 24-hour period standard applies to all tests utilizing a 100% effluent dilution, regardless of whether the results are submitted to comply with the minimum testing frequency defined in item b.

2. <u>Required Toxicity Testing Conditions</u>

- a. Test Acceptance The permittee shall repeat any toxicity test, including the control, if the control fails to meet a mean survival equal to or greater than 90%.
- b. Dilution Water In accordance with item 1.c., the control and dilution water shall normally consist of standard, synthetic, moderately hard, reconstituted water. If the permittee utilizes the results of a chronic test to satisfy the requirements in item 1.e., the permittee may use the receiving water or dilution water that meets the requirements of item 2.a as the control and dilution water.
- c. Samples and Composites
 - 1) The permittee shall collect one composite sample from Outfall 001.
 - 2) The permittee shall collect the composite sample such that the sample is representative of any periodic episode of chlorination, biocide usage, or other potentially toxic substance being discharged.
 - 3) The permittee shall initiate the toxicity tests within 36 hours after collection of the last portion of the composite sample. The sample shall be maintained at a temperature of 0-6 degrees Centigrade during collection, shipping, and storage.
 - 4) If Outfall 001 ceases discharging during the collection of the effluent composite sample, the requirements for the minimum number of effluent portions are waived. However, the permittee must have collected a composite sample volume sufficient for completion of the required test. The abbreviated sample collection, duration, and methodology must be documented in the full report.
 - 5) The effluent sample shall not be dechlorinated after sample collection.

3. <u>Reporting</u>

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

- a. The permittee shall prepare a full report of the results of all tests conducted in accordance with the manual referenced in Part 1.b. for every valid and invalid toxicity test initiated.
- b. The permittee shall routinely report the results of each biomonitoring test on the Table 2 forms provided with this permit.
 - 1) Semiannual biomonitoring test results are due on or before July 20th and January 20th for biomonitoring conducted during the previous 6-month period.

- 2) Quarterly biomonitoring test results are due on or before April 20th, July 20th, and October 20th, and January 20th for biomonitoring conducted during the previous calendar quarter.
- c. Enter the following codes for the appropriate parameters for valid tests only:
 - 1) For the water flea, Parameter TIE3D, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."
 - 2) For the fathead minnow, Parameter TIE6C, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."
- d. Enter the following codes for retests only:
 - 1) For retest number 1, Parameter 22415, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."
 - 2) For retest number 2, Parameter 22416, enter a "0" if the mean survival at 24 hours is greater than 50% in the 100% effluent dilution; if the mean survival is less than or equal to 50%, enter a "1."
- 4. <u>Persistent Mortality</u>

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

- a. The permittee shall conduct 2 additional tests (retests) for each species that demonstrates significant lethality. The two retests shall be conducted once per week for 2 weeks. Five effluent dilution concentrations in addition to an appropriate control shall be used in the retests. These effluent concentrations are 6%, 13%, 25%, 50% and 100% effluent. The first retest shall be conducted within 15 days of the laboratory determination of significant lethality. All test results shall be submitted within 20 days of test completion of the second retest. Test completion is defined as the 24th hour.
- b. If one or both of the two retests specified in Part 4.a. demonstrates significant lethality, the permittee shall initiate the TRE requirements as specified in Part 5.
- 5. <u>Toxicity Reduction Evaluation</u>
 - a. Within 45 days of the retest that demonstrates significant lethality, the permittee shall submit a general outline for initiating a TRE. The outline shall include, but not be limited to, a description of project personnel, a schedule for obtaining consultants (if needed), a discussion of influent and effluent data available for review, a sampling and analytical schedule, and a proposed TRE initiation date.
 - b. Within 90 days of the retest that demonstrates significant lethality, the permittee shall submit a TRE action plan and schedule for conducting a TRE. The plan shall

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

- 1) Specific Activities - The TRE action plan shall specify the approach the permittee intends to utilize in conducting the TRE, including toxicity characterizations, identifications, confirmations, source evaluations, treatability studies, and alternative approaches. When conducting characterization analyses, the permittee shall perform multiple characterizations and follow the procedures specified in the document entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures" (EPA/600/6-91/003) or alternate procedures. The permittee shall perform multiple identifications and follow the methods specified in the documents entitled "Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/080) and "Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity" (EPA/600/R-92/081). All characterization, identification, and confirmation tests shall be conducted in an orderly and logical progression;
- 2) Sampling Plan The TRE action plan should describe sampling locations, methods, holding times, chain of custody, and preservation techniques. The effluent sample volume collected for all tests shall be adequate to perform the toxicity characterization/identification/confirmation procedures and chemical-specific analyses when the toxicity tests show significant lethality. Where the permittee has identified or suspects specific pollutant and source of effluent toxicity, the permittee shall conduct, concurrent with toxicity testing, chemical-specific analyses for the identified and suspected pollutant and source of effluent toxicity;
- 3) Quality Assurance Plan The TRE action plan should address record keeping and data evaluation, calibration and standardization, baseline tests, system blanks, controls, duplicates, spikes, toxicity persistence in the samples, randomization, reference toxicant control charts, and mechanisms to detect artifactual toxicity; and
- 4) Project Organization The TRE Action Plan should describe the project staff, project manager, consulting engineering services (where applicable), consulting analytical and toxicological services, etc.
- c. Within 30 days of submittal of the TRE action plan and schedule, the permittee shall implement the TRE.
- d. The permittee shall submit quarterly TRE activities reports concerning the progress of the TRE. The quarterly TRE activities reports are due on or before

April 20th, July 20th, October 20th, and January 20th. The report shall detail information regarding the TRE activities including:

- 1) results and interpretation of any chemical-specific analyses for the identified and suspected pollutant performed during the quarter;
- 2) results and interpretation of any characterization, identification, and confirmation tests performed during the quarter;
- 3) any data and substantiating documentation that identifies the pollutant and source of effluent toxicity;
- 4) results of any studies/evaluations concerning the treatability of the facility's effluent toxicity;
- 5) any data that identifies effluent toxicity control mechanisms that will reduce effluent toxicity to the level necessary to eliminate significant lethality; and
- 6) any changes to the initial TRE plan and schedule that are believed necessary as a result of the TRE findings.
- e. During the TRE, the permittee shall perform, at a minimum, quarterly testing using the more sensitive species. Testing for the less sensitive species shall continue at the frequency specified in Part 1.b.
- f. If the effluent ceases to effect significant lethality, i.e., there is a cessation of lethality, the permittee may end the TRE. A cessation of lethality is defined as no significant lethality for a period of 12 consecutive weeks with at least weekly testing. At the end of the 12 weeks, the permittee shall submit a statement of intent to cease the TRE and may then resume the testing frequency specified in Part 1.b.

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

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

g. The permittee shall complete the TRE and submit a final report on the TRE activities no later than 18 months from the last test day of the retest that

demonstrates significant lethality. The permittee may petition the Executive Director (in writing) for an extension of the 18-month limit. However, to warrant an extension the permittee must have demonstrated due diligence in its pursuit of the toxicity identification evaluation/TRE and must prove that circumstances beyond its control stalled the toxicity identification evaluation/TRE. The report shall specify the control mechanism that will, when implemented, reduce effluent toxicity as specified in Part 5.h. The report shall also specify a corrective action schedule for implementing the selected control mechanism. A copy of the TRE final report shall also be submitted to the U.S. EPA Region 6 office.

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

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

- i. Based upon the results of the TRE and proposed corrective actions, this permit may be amended to modify the biomonitoring requirements where necessary, require a compliance schedule for implementation of corrective actions, specify a WET limit, specify a best management practice, and specify a chemical-specific limit.
- j. Copies of any and all required TRE plans and reports shall also be submitted to the U.S. EPA Region 6 office, 6WQ-PO.

TABLE 2 (SHEET 1 OF 2)

WATER FLEA SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

Time	Bon		Percent effluent								
Time	Rep	0%	6%	13%	25%	50%	100%				
	Α										
	В										
o 4h	C										
24h	D										
	E										
	MEAN										

Enter percent effluent corresponding to the LC50 below:

24-hour LC50 = ____% effluent

TABLE 2 (SHEET 2 OF 2)

FATHEAD MINNOW SURVIVAL

GENERAL INFORMATION

	Time	Date
Composite Sample Collected		
Test Initiated		

PERCENT SURVIVAL

Time	Dop		Percent effluent								
Time	Rep	0%	6%	13%	25%	50%	100%				
	А										
	В										
o 4h	C										
24h	D										
	E										
	MEAN										

Enter percent effluent corresponding to the LC50 below:

24-hour LC50 = ____% effluent

POLLUTANT ANALYSES REQUIREMENTS*

Section 1. Toxic Pollutants

For pollutants identified in Table 4.0(1), indicate type of sample. Grab \Box Composite \Box

Date and time sample(s) collected:

Table 4.0(1) – Toxics Analysis

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Acrylonitrile				50
Aldrin				0.01
Aluminum				2.5
Anthracene				10
Antimony				5
Arsenic				0.5
Barium				3
Benzene				10
Benzidine				50
Benzo(a)anthracene				5
Benzo(a)pyrene				5
Bis(2-chloroethyl)ether				10
Bis(2-ethylhexyl)phthalate				10
Bromodichloromethane				10
Bromoform				10
Cadmium				1
Carbon Tetrachloride				2
Carbaryl				5
Chlordane*				0.2
Chlorobenzene				10

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (μg/l)	Number of Samples	MAL (µg/l)
Chlorodibromomethane				10
Chloroform				10
Chlorpyrifos				0.05
Chromium (Total)				3
Chromium (Tri) (*1)				N/A
Chromium (Hex)				3
Copper				2
Chrysene				5
p-Chloro-m-Cresol				10
4,6-Dinitro-o-Cresol				50
p-Cresol				10
Cyanide (*2)				10
4,4'- DDD				0.1
4,4'- DDE				0.1
4,4'- DDT				0.02
2,4-D				0.7
Demeton (O and S)				0.20
Diazinon				0.5/0.1
1,2-Dibromoethane				10
m-Dichlorobenzene				10
o-Dichlorobenzene				10
p-Dichlorobenzene				10
3,3'-Dichlorobenzidine				5
1,2-Dichloroethane				10
1,1-Dichloroethylene				10

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (μg/l)	Number of Samples	MAL (µg/l)
Dichloromethane				20
1,2-Dichloropropane				10
1,3-Dichloropropene				10
Dicofol				1
Dieldrin				0.02
2,4-Dimethylphenol				10
Di-n-Butyl Phthalate				10
Diuron				0.09
Endosulfan I (alpha)				0.01
Endosulfan II (beta)				0.02
Endosulfan Sulfate				0.1
Endrin				0.02
Ethylbenzene				10
Fluoride				500
Guthion				0.1
Heptachlor				0.01
Heptachlor Epoxide				0.01
Hexachlorobenzene				5
Hexachlorobutadiene				10
Hexachlorocyclohexane (alpha)				0.05
Hexachlorocyclohexane (beta)				0.05
gamma-Hexachlorocyclohexane				0.05
(Lindane)				
Hexachlorocyclopentadiene				10
Hexachloroethane				20

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Hexachlorophene				10
Lead				0.5
Malathion				0.1
Mercury				0.005
Methoxychlor				2
Methyl Ethyl Ketone				50
Mirex				0.02
Nickel				2
Nitrate-Nitrogen				100
Nitrobenzene				10
N-Nitrosodiethylamine				20
N-Nitroso-di-n-Butylamine				20
Nonylphenol				333
Parathion (ethyl)				0.1
Pentachlorobenzene				20
Pentachlorophenol				5
Phenanthrene				10
Polychlorinated Biphenyls (PCB's) (*3)				0.2
Pyridine				20
Selenium				5
Silver				0.5
1,2,4,5-Tetrachlorobenzene				20
1,1,2,2-Tetrachloroethane				10
Tetrachloroethylene				10
Thallium				0.5

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (µg/l)	Number of Samples	MAL (µg/l)
Toluene				10
Toxaphene				0.3
2,4,5-TP (Silvex)				0.3
Tributyltin (see instructions for				0.01
explanation)				
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
2,4,5-Trichlorophenol				50
TTHM (Total Trihalomethanes)				10
Vinyl Chloride				10
Zinc				5

(*1) Determined by subtracting hexavalent Cr from total Cr.

(*2) Cyanide, amenable to chlorination or weak-acid dissociable.

(*3) The sum of seven PCB congeners 1242, 1254, 1221, 1232, 1248, 1260, and 1016.

Section 2. Priority Pollutants

For pollutants identified in Tables 4.0(2)A-E, indicate type of sample.

Grab 🗆 Composite 🗆

Date and time sample(s) collected:

Table 4.0(2)A – Metals, Cyanide, Phenols

Pollutant	AVG Effluent Conc. (µg/l)	MAX Effluent Conc. (μg/l)	Number of Samples	MAL (µg/l)
Antimony				5
Arsenic				0.5
Beryllium				0.5
Cadmium				1
Chromium (Total)				3
Chromium (Hex)				3
Chromium (Tri) (*1)				N/A
Copper				2
Lead				0.5
Mercury				0.005
Nickel				2
Selenium				5
Silver				0.5
Thallium				0.5
Zinc				5
Cyanide (*2)				10
Phenols, Total				10

(*1) Determined by subtracting hexavalent Cr from total Cr.

(*2) Cyanide, amenable to chlorination or weak-acid dissociable

Table 4.0(2)B – Volatile Compounds

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (μg/l)	Number of Samples	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				10
1,2-Dichloropropane				10
1,3-Dichloropropylene [1,3-Dichloropropene]				10
1,2-Trans-Dichloroethylene				10
Ethylbenzene				10
Methyl Bromide				50
Methyl Chloride				50
Methylene Chloride				20
1,1,2,2-Tetrachloroethane				10
Tetrachloroethylene				10
Toluene				10
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
Vinyl Chloride				10

Table 4.0(2)C – Acid Compounds

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (μg/l)	Number of Samples	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
Pentalchlorophenol				5
Phenol				10
2,4,6-Trichlorophenol				10

Table 4.0(2)D – Base/Neutral Compounds

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (μg/l)	Number of Samples	MAL (µg/l)
Acenaphthene				10
Acenaphthylene				10
Anthracene				10
Benzidine				50
Benzo(a)Anthracene				5
Benzo(a)Pyrene				5
3,4-Benzofluoranthene				10
Benzo(ghi)Perylene				20
Benzo(k)Fluoranthene				5
Bis(2-Chloroethoxy)Methane				10
Bis(2-Chloroethyl)Ether				10
Bis(2-Chloroisopropyl)Ether				10
Bis(2-Ethylhexyl)Phthalate				10
4-Bromophenyl Phenyl Ether				10
Butyl benzyl Phthalate				10
2-Chloronaphthalene				10
4-Chlorophenyl phenyl ether				10
Chrysene				5
Dibenzo(a,h)Anthracene				5
1,2-(0)Dichlorobenzene				10
1,3-(m)Dichlorobenzene				10
1,4-(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 1,2-Diphenylhydrazine (as Azo- benzene)				10 20
Fluoranthene				10
Fluorene				10
Hexachlorobenzene				5

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (μg/l)	Number of Samples	MAL (µg/l)
Hexachlorobutadiene				10
Hexachlorocyclo-pentadiene				10
Hexachloroethane				20
Indeno(1,2,3-cd)pyrene				5
Isophorone				10
Naphthalene				10
Nitrobenzene				10
N-Nitrosodimethylamine				50
N-Nitrosodi-n-Propylamine				20
N-Nitrosodiphenylamine				20
Phenanthrene				10
Pyrene				10
1,2,4-Trichlorobenzene				10

Table 4.0(2)E - Pesticides

Pollutant	AVG Effluent Conc. (μg/l)	MAX Effluent Conc. (μg/l)	Number of Samples	MAL (µg/l)
Aldrin				0.01
alpha-BHC (Hexachlorocyclohexane)				0.05
beta-BHC (Hexachlorocyclohexane)				0.05
gamma-BHC (Hexachlorocyclohexane)				0.05
delta-BHC (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
PCB-1260				0.2
PCB-1016				0.2
Toxaphene				0.3

Section 3. Dioxin/Furan Compounds

A. Are any of the following compounds used by a contributing industrial user or significant industrial user that is part of the collection system for the facility that you have reason to believe are present in the influent to the WWTP?

Yes No No If **yes**, identify which compound(s) are potentially sent to the facility.

2,4,5-trichlorophenoxy acetic acid Common Name 2,4,5-T, CASRN 93-76-5
2-(2,4,5-trichlorophenoxy) propanoic acid Common Name Silvex or 2,4,5-TP, CASRN 93-72-1
2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate Common Name Erbon, CASRN 136-25-4
0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate Common Name Ronnel, CASRN 299-84-3
2,4,5-trichlorophenol Common Name TCP, CASRN 95-95-4
hexachlorophene Common Name HCP, CASRN 70-30-4

For each compound identified, provide a brief description of the conditions of its/their presence at the facility.

B. Do you 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 your effluent?

Yes		No	
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If **yes**, provide a brief description of the conditions for its presence.

If you responded **yes** to either Subsection A **or** B, complete Table 4.0(2)F.

For pollutants identified in Table 4.0(2)F, indicate type of sample.				
Grab 🗆	l Composite 🗆			
Date and time sample	(s) collected:			

TABLE 4.0(2)F - DIOXIN/FURAN COMPOUNDS

Compound	Toxic Equivalency Factors	Wastewater Concentratio n (ppq)	Wastewater Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Equivalents (ppt)	MAL (ppq)
2,3,7,8 TCDD	1					10
1,2,3,7,8 PeCDD	0.5					50
2,3,7,8 HxCDDs	0.1					50
1,2,3,4,6,7,8 HpCDD	0.01					50
2,3,7,8 TCDF	0.1					10
1,2,3,7,8 PeCDF	0.05					50
2,3,4,7,8 PeCDF	0.5					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					0.5
PCB 81	0.0003					0.5
PCB 126	0.1					0.5
PCB 169	0.03					0.5
Total						

FACT SHEET AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

For draft Texas Pollutant Discharge Elimination System (TPDES) Permit No. WQ0015930001, EPA I.D. No. TX0140635, to discharge to water in the state.

Issuing Office:	Texas Commission on Environmental Quality P.O. Box 13087 Austin, Texas 78711-3087
Applicant:	City of Bryan P.O. Box 1000 Bryan, Texas 77805
Prepared By:	Gordon R. Cooper Municipal Permits Team Wastewater Permitting Section (MC 148) Water Quality Division (512) 239-1963
Date:	May 21, 2021

Permit Action: New Permit

1. EXECUTIVE DIRECTOR RECOMMENDATION

The Executive Director has made a preliminary decision that this permit, if issued, meets all statutory and regulatory requirements. The draft permit includes an expiration date of **five years from the date of issuance**.

2. APPLICANT ACTIVITY

The applicant has applied to the Texas Commission on Environmental Quality (TCEQ) for a new permit to authorize the discharge of treated domestic wastewater at an annual average flow not to exceed 6.0 million gallons per day (MGD) in the Interim phase and an annual average flow not to exceed 12.0 MGD in the Final phase. The proposed wastewater treatment facility will serve the City of Bryan.

3. FACILITY AND DISCHARGE LOCATION

The plant site will be located approximately 1,400 feet northeast of the intersection of Australia Lane and Cole Lane, in Brazos County, Texas 77845.

Outfall Location:

Outfall Number	Latitude	Longitude	
001	30.649038 N	96.226515 W	

The treated effluent is discharged to Brushy Creek, thence to Wickson Creek, thence to the Navasota River Below Lake Limestone in Segment No. 1209 of the Brazos River Basin. The unclassified receiving water uses are limited aquatic life use for Brushy Creek and presumed high aquatic life use for Wickson Creek. The designated uses for Segment No. 1209 are primary contact recreation, public water supply, and high aquatic life use.

4. TREATMENT PROCESS DESCRIPTION AND SEWAGE SLUDGE DISPOSAL

The City of Bryan Brushy Creek Wastewater Treatment Facility is an activated sludge process plant operated in the extended aeration mode. Treatment units in the Interim phase include a bar screen, a grit removal chamber, three aeration basins, three final clarifiers, a sludge holding tank, a belt filter press, an ultraviolet (UV) disinfection chamber and cascade aeration unit. Treatment units in the Final phase include two bar screens, two grit removal chambers, six aeration basins, six final clarifiers, two sludge holding tanks, two belt filter presses, two ultraviolet (UV) disinfection chambers and cascade aeration units. The facility has not been constructed.

Sludge generated from the treatment facility will be hauled by a registered transporter and disposed of at a TCEQ-permitted landfill, Brazos Valley Solid Waste Management Authority, Twin Oaks Landfill, Permit No. 2292, in Grimes County and Brazos Valley Solid Waste Management Authority, Bryan Composting Facility, Permit No. 42003, in Brazos County. The draft permit also authorizes the disposal of sludge at a TCEQauthorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge.

5. INDUSTRIAL WASTE CONTRIBUTION

The draft permit includes pretreatment requirements that are appropriate for a facility of this size and complexity. The Brushy Creek WWTP receives significant industrial wastewater contributions.

6. SUMMARY OF SELF-REPORTED EFFLUENT ANALYSES

Self-reporting data is not available since the facility has not been constructed.

7. DRAFT PERMIT CONDITIONS AND MONITORING REQUIREMENTS

The effluent limitations and monitoring requirements for those parameters that are limited in the draft permit are as follows:

A. INTERIM PHASE EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The annual average flow of effluent shall not exceed 6.0 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 16,667 gallons per minute.

			<u>7-Day</u>	Daily
<u>Parameter</u>	<u>30-Day</u>	Average	<u>Average</u>	Maximum
	<u>mg/l</u>	<u>lbs/day</u>	<u>mg/l</u>	<u>mg/l</u>
$CBOD_5$	5	250	10	20
TSS	15	751	25	40
NH ₃ -N	2	100	5	10
DO (minimum)	6.0	N/A	N/A	N/A
<i>E. coli,</i> CFU or MPN per 100 ml	126	N/A	N/A	399

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored five times per week by grab sample. There shall be

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

The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

<u>Parameter</u>	Monitoring Requirement
Flow, MGD	Continuous
$CBOD_5$	Five/week
TSS	Five/week
NH ₃ -N	Five/week
DO	Five/week
E. coli	Daily

B. FINAL PHASE EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The annual average flow of effluent shall not exceed 12.0 MGD, nor shall the average discharge during any two-hour period (2-hour peak) exceed 33,333 gallons per minute.

			<u>7-Day</u>	<u>Daily</u>
<u>Parameter</u>	<u>30-Day</u>	Average	Average	Maximum
	<u>mg/l</u>	<u>lbs/day</u>	<u>mg/l</u>	<u>mg/l</u>
CBOD_5	5	500	10	20
TSS	15	1,501	25	40
NH ₃ -N	1.7	170	4	8
DO (minimum)	6.0	N/A	N/A	N/A
<i>E. coli</i> , CFU or MPN per 100 ml	126	N/A	N/A	399

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units and shall be monitored once per day by grab sample. There shall be no discharge of floating solids or visible foam in other than trace amounts and no discharge of visible oil.

The permittee shall utilize an Ultraviolet Light (UV) system for disinfection purposes. An equivalent method of disinfection may be substituted only with prior approval of the Executive Director.

<u>Parameter</u>	<u>Monitoring Requirement</u>
Flow, MGD	Continuous
$CBOD_5$	One/day
TSS	One/day
NH ₃ -N	One/day
DO	One/day
E. col	Daily

C. SEWAGE SLUDGE REQUIREMENTS

The draft permit includes Sludge Provisions according to the requirements of 30 TAC Chapter 312, Sludge Use, Disposal, and Transportation. Sludge generated

from the treatment facility is hauled by a registered transporter and disposed of at a TCEQ-permitted landfill, Brazos Valley Solid Waste Management Authority, Twin Oaks Landfill, Permit No. 2292, in Grimes County and Brazos Valley Solid Waste Management Authority, Bryan Composting Facility, Permit No. 42003, in Brazos County. The draft permit also authorizes the disposal of sludge at a TCEQ-authorized land application site, co-disposal landfill, wastewater treatment facility, or facility that further processes sludge.

D. PRETREATMENT REQUIREMENTS

Permit requirements for pretreatment are based on TPDES regulations contained in 30 TAC Chapter 305 which references 40 CFR Part 403, General Pretreatment Regulations for Existing and New Sources of Pollution *[rev. Federal Register/ Vol. 70/ No. 198/ Friday, October 14, 2005/ Rules and Regulations, pages 60134-60798].* The permit includes specific requirements that establish responsibilities of local government, industry, and the public to implement the standards to control pollutants which pass through or interfere with treatment processes in publicly owned treatment works or which may contaminate the sewage sludge. This permit has appropriate pretreatment language for a facility of this size and complexity.

The permittee has a pretreatment program which was approved by the U.S. Environmental Protection Agency (EPA) on November 4, 1982, and modified on June 26, 1990, December 6, 2004, and July 22, 2011 (nonsubstantial Streamlining Rule). The permittee is required, under the conditions of the approved pretreatment program, to prepare annually a list of industrial users which during the preceding twelve months were in significant noncompliance with applicable pretreatment requirements for those facilities covered under the program. This list is to be published annually during the month of **December** in a newspaper of general circulation that provides meaningful public notice within the jurisdiction(s) served by the POTW.

Effective December 21, 2023, the permittee must submit the pretreatment program annual status report electronically using the online electronic reporting system available through the TCEQ website unless the permittee requests and obtains an electronic reporting waiver. [rev. Federal Register/ Vol. 80/ No. 204/ Friday, October 22, 2015/ Rules and Regulations, pages 64064-64158].

The permittee is under a continuing duty to: establish and enforce specific local limits to implement the provisions of 40 CFR §403.5, to develop and enforce local limits as necessary, and to modify the approved POTW pretreatment program as necessary to comply with federal, state, and local law, as amended. The permittee is required to effectively enforce such limits and to modify their pretreatment program, including the Legal Authority, Enforcement Response Plan, and/or Standard Operating Procedures, if required by the Executive Director to reflect changing conditions at the POTW.

The permittee is required to develop technically based local limits (TBLLs) for this new facility **within twelve (12) months of commencement of discharge from Outfall 001**. The permittee submitted the TBLLs package for the Thompsons Creek facility (TPDES Permit No. WQ0010429004) as a substantial modification to its approved pretreatment program on February 2, 2016, and supplemental information on February 9, 2016. The Executive Director is currently reviewing this substantial modification. The permittee shall demonstrate and certify that the TBLLs will attain the Texas Surface Water Quality Standards [30 TAC Chapter 307] in water in the state, prevent pass through of pollutants, inhibition of or interference with the treatment facility, worker health and safety problems, and sludge contamination. The technical development of the TBLLs should be developed in accordance with EPA's Local Limit Development Guidance, July 2004, and EPA Region 6's Technically Based Local Limits Development Guidance, October 12, 1993.

Substantial modifications will be approved in accordance with 40 CFR §403.18, and the modification will become effective upon approval by the Executive Director in accordance with 40 CFR §403.18.

E. WHOLE EFFLUENT TOXICITY (BIOMONITORING) REQUIREMENTS

- (1) The draft permit includes chronic freshwater biomonitoring requirements as follows. The permit requires five dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 32%, 42%, 56%, 75%, and 100%. The low-flow effluent concentration (critical dilution) is defined as 100% effluent.
 - (a) Chronic static renewal survival and reproduction test using the water flea (*Ceriodaphnia dubia*). The frequency of the testing is once per quarter for at least the first year of testing, after which the permittee may apply for a testing frequency reduction.
 - (b) Chronic static renewal 7-day larval survival and growth test using the fathead minnow (*Pimephales promelas*). The frequency of the testing is once per quarter for at least the first year of testing, after which the permittee may apply for a testing frequency reduction.
- (2) The draft permit includes the following minimum 24-hour acute freshwater biomonitoring requirements at a frequency of once per six months:
 - (a) Acute 24-hour static toxicity test using the water flea (*Daphnia pulex* or *Ceriodaphnia dubia*).
 - (b) Acute 24-hour static toxicity test using the fathead minnow (*Pimephales promelas*).

F. BUFFER ZONE REQUIREMENTS

The permittee shall comply with the requirements of 30 TAC § 309.13(a) through (d). In addition, by ownership of the required buffer zone area, the permittee shall comply with the requirements of 30 TAC § 309.13(e).

G. SUMMARY OF CHANGES FROM APPLICATION

The applicant requested effluent limitations, based on a 30-day average, of 10 mg/l CBOD₅, 15 mg/l TSS, 2 mg/l NH₃-N, 126 CFU or MPN per 100 ml of *E. coli*

and 6.0 mg/l minimum DO in the Interim and Final phases. However, effluent limitations in the Interim phase of the draft permit, based on a 30-day average, are 5 mg/l CBOD₅, 15 mg/l TSS, 2 mg/l NH₃-N, 126 CFU or MPN per 100 ml of *E. coli* and 6.0 mg/l minimum DO and 5 mg/l (C)BOD₅, 15 mg/l TSS, 1.7 mg/l NH₃-N, 126 CFU or MPN per 100 ml of *E. coli* per 100 ml and 6.0 mg/l minimum DO in the Final phase.

The draft permit includes Other Requirement No. 8 and Appendix A, which require the permittee to provide effluent data for screening against the calculated water quality-based effluent data for this permit.

8. DRAFT PERMIT RATIONALE

A. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

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

Effluent limitations for maximum and minimum pH are in accordance with 40 CFR § 133.102(c) and 30 TAC § 309.1(b).

B. WATER QUALITY SUMMARY AND COASTAL MANAGEMENT PLAN

(1) WATER QUALITY SUMMARY

The treated effluent is discharged to Brushy Creek, thence to Wickson Creek, thence to the Navasota River Below Lake Limestone in Segment No. 1209 of the Brazos River Basin. The unclassified receiving water uses are limited aquatic life use for Brushy Creek and presumed high aquatic life use for Wickson Creek. The designated uses for Segment No. 1209 are primary contact recreation, public water supply, and high aquatic life use. The effluent limitations in the draft permit will maintain and protect the existing instream uses. In accordance with 30 Texas Administrative Code §307.5 and the TCEQ's Procedures to Implement the Texas Surface Water Quality Standards (June 2010), an antidegradation review of the receiving waters was performed. A Tier 1 antidegradation review has preliminarily determined that existing water quality uses will not be impaired by this permit action. Numerical and narrative criteria to protect existing uses will be maintained. A Tier 2 review has preliminarily determined that no significant degradation of water quality is expected in Wickson Creek, which has been identified as having a presumed high aquatic life use. Existing uses will be maintained and protected. The preliminary determination can be reexamined and may be modified if new information is received.

The Houston Toad (*Bufo houstonensis* Sanders), an endangered aquaticdependent species of critical concern, occurs within the Segment No. 1209 watershed as well as the United States Geological Survey hydrologic unit code 12030201. This determination was made by referencing Appendix A of the United States Fish and Wildlife Service biological opinion on the State of Texas authorization of the Texas Pollutant Discharge Elimination System dated September 14, 1998 and the October 21, 1998 update. The determination is subject to reevaluation due to subsequent updates or amendments to the biological opinion. Species distribution information for the Segment 1209 watershed provided by the United States Fish and Wildlife Service documents the toad's presence solely in the vicinity of Running Creek in Leon County. Based upon this information, it is determined that the facility's discharge is not expected to impact the Houston Toad. The permit does not require EPA review with respect to the presence of endangered or threatened species.

Segment No. 1209 is currently listed on the State's inventory of impaired and threatened waters (the 2020 Clean Water Act Section 303(d) list). The listing is for bacteria in the portion of Navasota River from confluence with Camp Creek upstream to Lake Limestone Dam in Robertson County (Assessment Unit [AU] 1209_05). Wickson Creek is also listed for bacteria from the confluence with an unnamed first order tributary (approximately 1.3 km upstream of Reliance Road crossing) upstream to the confluence with an unnamed first order tributary approximately 15 meters upstream of Dilly Shaw Road (AU 1209E_01).

This facility is designed to provide adequate disinfection and, when operated properly, should not add to the bacterial impairment of the segment.

On August 28, 2019, the Texas Commission on Environmental Quality (TCEQ) adopted *Two Total Maximum Daily Loads for Indicator Bacteria in the Navasota River below Lake Limestone*. The U.S. Environmental Protection Agency (USEPA) approved the TMDLs on October 25, 2019. The TMDL addresses elevated levels of bacteria in one classified segment (Navasota River Below Lake Limestone –Segment No. 1209, AUS_03 and _05) in this watershed. This project takes a watershed approach, but the TMDL only applies to AU 1209_03 and the AUs and additional unclassified segments upstream of it (1209_04, 1209_05, 1209_H, 1209G, 1209J, 1209K, and 1209P).

The waste load allocation (WLA) for wastewater treatment facilities (WWTFs) was established as the final permitted flow for each facility multiplied by the geometric mean criterion for bacteria multiplied by a conversion factor (to get to units per day). The allocated loads were calculated for *E. coli*. Future growth from existing or new permitted sources is not limited by these TMDLs as long as the sources do not exceed the limits provided. To ensure that effluent limitations for this discharge are consistent with the WLAs provided in the TMDL, a concentration-based effluent limitation of 126 CFU or MPN per 100 mL for *E. coli* has been included in the draft permit.

The effluent limitations and conditions in the draft permit comply with EPA-approved portions of the 2018 Texas Surface Water Quality Standards (TSWQS), 30 TAC §§ 307.1 - 307.10, effective March 1, 2018; 2014 TSWQS, effective March 6, 2014; 2010 TSWQS, effective July 22, 2010; and 2000 TSWQS, effective July 26, 2000.

(2) CONVENTIONAL PARAMETERS

Effluent limitations for the conventional effluent parameters (i.e., Five-Day Biochemical Oxygen Demand or Carbonaceous Biochemical Oxygen Demand, Ammonia Nitrogen, etc.) are based on stream standards and waste load allocations for water quality-limited streams as established in the TSWQS and the State of Texas Water Quality Management Plan (WQMP).

The effluent limitations in the draft permit have been reviewed for consistency with the WQMP. The proposed effluent limitations are not contained in the approved WQMP. However, these limits will be included in the next WQMP update.

The effluent limitations in the draft permit meet the requirements for secondary treatment and the requirements for disinfection according to 30 TAC Chapter 309, Subchapter A: Effluent Limitations.

(3) COASTAL MANAGEMENT PLAN

The facility is not located in the Coastal Management Program boundary.

C. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS

(1) GENERAL COMMENTS

The Texas Surface Water Quality Standards (30 TAC Chapter 307) state that surface waters will not be toxic to man, or to terrestrial or aquatic life. The methodology outlined in the "Procedures to Implement the Texas Surface Water Quality Standards, June 2010" is designed to ensure compliance with 30 TAC Chapter 307. Specifically, the methodology is designed to ensure that no source will be allowed to discharge any wastewater that: (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical state water quality standard; (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation that threatens human health.

(2) AQUATIC LIFE CRITERIA

(a) SCREENING

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

Acute freshwater criteria are applied at the edge of the zone of initial dilution (ZID), and chronic freshwater criteria are applied at the edge of the aquatic life mixing zone. The ZID for this discharge is defined as 20 feet upstream and 60 feet downstream from the point where the discharge enters Wickson Creek. The aquatic life mixing zone for this

discharge is defined as 100 feet upstream and 300 feet downstream from the point where the discharge enters Wickson Creek.

TCEQ uses the mass balance equation to estimate dilutions at the edges of the ZID and aquatic life mixing zone during critical conditions. The estimated dilution at the edge of the aquatic life mixing zone is calculated using the permitted flow of 12 MGD and the 7-day, 2-year (7Q2) flow of 0 cubic feet per second (cfs) for Wickson Creek. The estimated dilution at the edge of the ZID is calculated using the permitted flow of 12.0 MGD and 25% of the 7Q2 flow. The following critical effluent percentages are being used:

Acute Effluent %: 100% Chronic Effluent %: 100%

There is no mixing zone for this discharge directly to an intermittent stream with perennial pools; acute and chronic freshwater criteria apply at the end of pipe. The following critical effluent percentages are being used:

Acute Effluent % 100% Chronic Effluent % 100%

There is no mixing zone for this discharge directly to an intermittent stream; acute freshwater criteria apply at the end of pipe. Acute and chronic freshwater criteria apply at Brushy Creek, the intermittent stream with perennial pools. The following critical effluent percentages are being used:

Acute Effluent %: 100% Chronic Effluent %: 100%

Waste load allocations (WLAs) are calculated using the above estimated effluent percentages, criteria outlined in the Texas Surface Water Quality Standards, and partitioning coefficients for metals (when appropriate and designated in the implementation procedures). The WLA is the end-ofpipe effluent concentration that can be discharged when, after mixing in the receiving stream, instream numerical criteria will not be exceeded. From the WLA, a long-term average (LTA) is calculated using a log normal probability distribution, a given coefficient of variation (0.6), and a 90th percentile confidence level. The LTA is the long-term average effluent concentration for which the WLA will never be exceeded using a selected percentile confidence level. The lower of the two LTAs (acute and chronic) is used to calculate a daily average and daily maximum effluent limitation for the protection of aquatic life using the same statistical considerations with the 99th percentile confidence level and a standard number of monthly effluent samples collected (12). Assumptions used in deriving the effluent limitations include segment values for hardness, chlorides, pH, and total suspended solids (TSS) according to the segmentspecific values contained in the TCEQ guidance document "Procedures to Implement the Texas Surface Water Quality Standards, June 2010." The segment values are 68 mg/l for hardness (as calcium carbonate), 44 mg/l chlorides, 7.1 standard units for pH, and 17 mg/l for TSS. For additional details on the calculation of water quality-based effluent limitations, refer to the TCEQ guidance document.

TCEQ practice for determining significant potential is to compare the reported analytical data against percentages of the calculated daily average water quality-based effluent limitation. Permit limitations are required when analytical data reported in the application exceeds 85% of the calculated daily average water quality-based effluent limitation. Monitoring and reporting is required when analytical data reported in the application exceeds 70% of the calculated daily average water qualitybased effluent limitation. See Attachment A of this Fact Sheet.

(b) PERMIT ACTION

No analytical data is available for screening against water quality-based effluent limitations because the facility is not in operation.

(3) AQUATIC ORGANISM BIOACCUMULATION CRITERIA

(a) SCREENING

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of freshwater fish tissue found in Table 2 of the Texas Surface Water Quality Standards (30 TAC Chapter 307). Freshwater fish tissue bioaccumulation criteria are applied at the edge of the human health mixing zone. The human health mixing zone for this discharge is identical to the aquatic life mixing zone. TCEQ uses the mass balance equation to estimate dilution at the edge of the human health mixing zone during average flow conditions. The estimated dilution at the edge of the human health mixing zone is calculated using the permitted flow of 12.0 MGD and the harmonic mean flow of 0.2 cfs for Wickson Creek. The following critical effluent percentage is being used:

Human Health Effluent %: 98.93%

Water quality-based effluent limitations for the protection of human health are calculated using criteria for the consumption of freshwater fish tissue found in Table 2 of the Texas Surface Water Quality Standards (30 TAC Chapter 307). The discharge point is to an intermittent stream with perennial pools or to an intermittent stream within 3 miles upstream of an intermittent stream with perennial pools. Human health screening using incidental freshwater fish tissue criteria (= 10 X freshwater fish tissue criteria) is applicable due to the perennial pools that support incidental freshwater fisheries. TCEQ uses the mass balance equation to estimate dilution in the intermittent stream with perennial pools during average flow conditions. The estimated dilution for human health protection is calculated using the permitted flow of 12.0 MGD and the harmonic mean flow of 0.1 cfs for Brushy Creek. The following effluent percentage is being used:

Human Health Effluent % 99.464%

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

Significant potential is again determined by comparing reported analytical data against 70% and 85% of the calculated daily average water quality-based effluent limitation. See Attachment A of this Fact Sheet.

(b) PERMIT ACTION

No analytical data is available for screening against water quality-based effluent limitations because the facility is not in operation.

(4) DRINKING WATER SUPPLY PROTECTION

(a) SCREENING

Water Quality Segment No. 1209, which receives the discharge from this facility, is designated as a public water supply. The discharge point is located at a distance greater than three miles from the classified segment. Screening reported analytical data of the effluent against water quality-based effluent limitations calculated for the protection of a drinking water supply is not applicable due to the distance between the discharge point and the classified segment.

(b) PERMIT ACTION

No analytical data is available for screening against water quality-based effluent limitations because the facility is not in operation.

None.

(5) WHOLE EFFLUENT TOXICITY (BIOMONITORING) CRITERIA

(a) SCREENING

TCEQ has determined that there may be pollutants present in the effluent that may have the potential to cause toxic conditions in the receiving stream. Whole effluent biomonitoring is the most direct measure of potential toxicity that incorporates the effects of synergism of effluent components and receiving stream water quality characteristics. Biomonitoring of the effluent is, therefore, required as a condition of this permit to assess potential toxicity.

The existing permit includes chronic freshwater biomonitoring requirements. The applicant is not currently monitoring whole effluent toxicity because the requirements do not take effect until discharges commence in the Interim phase. (b) PERMIT ACTION

The test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge. This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data show actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body.

No analytical data is available because the facility is not in operation.

- (6) WHOLE EFFLUENT TOXICITY CRITERIA (24-HOUR ACUTE)
 - (a) SCREENING

The existing permit includes 24-hour acute freshwater biomonitoring language. This facility is currently not constructed. Therefore, there is no WET testing history to review.

(b) PERMIT ACTION

The applicant is not currently monitoring whole effluent toxicity because the requirements do not take effect until discharges commence in the Interim phase.

9. WATER QUALITY VARIANCE REQUESTS

No variance requests have been received.

10. PROCEDURES FOR FINAL DECISION

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

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

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

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

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

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

For additional information about this application, contact Gordon R. Cooper at (512) 239-1963.

11. ADMINISTRATIVE RECORD

The following items were considered in developing the draft permit:

A. APPLICATION

Application received on September 25, 2020, and additional information received on December 16, 2020.

B. MEMORANDA

Interoffice memoranda from the Water Quality Assessment Section of the TCEQ Water Quality Division. Interoffice memorandum from the Pretreatment Team of the TCEQ Water Quality Division.

C. MISCELLANEOUS

Federal Clean Water Act § 402; Texas Water Code § 26.027; 30 TAC Chapters 30, 305, 309, 312, and 319; Commission policies; and U.S. Environmental Protection Agency guidelines.

Texas Surface Water Quality Standards, 30 TAC §§ 307.1 - 307.10.

Procedures to Implement the Texas Surface Water Quality Standards (IP), Texas Commission on Environmental Quality, June 2010, as approved by the U.S. Environmental Protection Agency, and the IP, January 2003, for portions of the 2010 IP not approved by the U.S. Environmental Protection Agency.

Texas 2020 Clean Water Act Section 303(d) List, Texas Commission on Environmental Quality, March 25, 2020; approved by the U.S. Environmental Protection Agency on May 12, 2020.

Texas Natural Resource Conservation Commission, Guidance Document for Establishing Monitoring Frequencies for Domestic and Industrial Wastewater Discharge Permits, Document No. 98-001.000-OWR-WQ, May 1998.

Two Total Maximum Daily Loads for Indicator Bacteria in the Navasota River below Lake Limestone (TMDL Project No. 111).

Attachment A

TEXTOX MENU #3 - PERENNIAL STREAM OR RIVER

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

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

PERMIT INFORMATION

Permittee Name:	City of Bryan
TPDES Permit No.:	WQ0015930001
Outfall No.:	001
Prepared by:	G Cooper
Date:	May 14, 2021

DISCHARGE INFORMATION

Receiving Waterbody:	Wicksom Cre	ek
Segment No.:	1209	
TSS (mg/L):	17	
pH (Standard Units):	7.1	
Hardness (mg/L as CaCO₃):	68	
Chloride (mg/L):	44	
Effluent Flow for Aquatic Life (MGD):	12	
Critical Low Flow [7Q2] (cfs):	0	
% Effluent for Chronic Aquatic Life (Mixing Zone):	100.00	
% Effluent for Acute Aquatic Life (ZID):	100.00	
Effluent Flow for Human Health (MGD):	12	
Harmonic Mean Flow (cfs):	0.2	
% Effluent for Human Health:	98.93	
Human Health Criterion (select: PWS, FISH, or INC)	FISH	

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

Stream/River Metal	Intercept (b)	Slope (m)	Partition Coefficient (Kp)	Dissolved Fraction (Cd/Ct)	Source	Water Effect Ratio (WER)	Source
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	5.68	-0.73	60502.36	0.493		1.00	Assumed
Cadmium	6.60	-1.13	162028.99	0.266		1.00	Assumed
Chromium (total)	6.52	-0.93	237510.33	0.199		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	237510.33	0.199		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	128667.18	0.314		1.00	Assumed
Lead	6.45	-0.80	292173.53	0.168		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	97419.10	0.376		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	129609.73	0.312		1.00	Assumed
Zinc	6.10	-0.70	173254.99	0.253		1.00	Assumed

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	FW Acute Criterion (μg/L)	FW Chronic Criterion (μg/L)	WLAa (µg/L)	WLAc (µg/L)	LTAa (µg/L)	LTAc (μg/L)	Daily Avg. (μg/L)	Daily Max. (μg/L)
Aldrin	3.0	N/A	3.00	N/A	1.72	N/A	2.52	5.34
Aluminum	991	N/A	991	N/A	568	N/A	834	1765
Arsenic	340	150	690	304	395	234	344	728
Cadmium	5.9	0.188	22.1	0.706	12.7	0.544	0.799	1.69
Carbaryl	2.0	N/A	2.00	N/A	1.15	N/A	1.68	3.56
Chlordane	2.4	0.004	2.40	0.00400	1.38	0.00308	0.00452	0.00957
Chlorpyrifos	0.083	0.041	0.0830	0.0410	0.0476	0.0316	0.0464	0.0981
Chromium (trivalent)	415	54	2093	272	1199	210	308	651
Chromium (hexavalent)	15.7	10.6	15.7	10.6	9.00	8.16	11.9	25.3
Copper	9.9	6.8	31.5	21.7	18.0	16.7	24.5	51.9
Cyanide (free)	45.8	10.7	45.8	10.7	26.2	8.24	12.1	25.6
4,4'-DDT	1.1	0.001	1.10	0.00100	0.630	0.000770	0.00113	0.00239
Demeton	N/A	0.1	N/A	0.100	N/A	0.0770	0.113	0.239
Diazinon	0.17	0.17	0.170	0.170	0.0974	0.131	0.143	0.302
Dicofol [Kelthane]	59.3	19.8	59.3	19.8	34.0	15.2	22.4	47.4
Dieldrin	0.24	0.002	0.240	0.00200	0.138	0.00154	0.00226	0.00478
Diuron	210	70	210	70.0	120	53.9	79.2	167
Endosulfan I (<i>alpha</i>)	0.22	0.056	0.220	0.0560	0.126	0.0431	0.0633	0.134
Endosulfan II (<i>beta</i>)	0.22	0.056	0.220	0.0560	0.126	0.0431	0.0633	0.134
Endosulfan sulfate	0.22	0.056	0.220	0.0560	0.126	0.0431	0.0633	0.134
Endrin	0.086	0.002	0.0860	0.00200	0.0493	0.00154	0.00226	0.00478
Guthion [Azinphos Methyl]	N/A	0.01	N/A	0.0100	N/A	0.00770	0.0113	0.0239
Heptachlor	0.52	0.004	0.520	0.00400	0.298	0.00308	0.00452	0.00957
Hexachlorocyclohexane (gamma) [Lindane]	1.126	0.08	1.13	0.0800	0.645	0.0616	0.0905	0.191
Lead	42	1.65	253	9.84	145	7.58	11.1	23.5
Malathion	N/A	0.01	N/A	0.0100	N/A	0.00770	0.0113	0.0239
Mercury	2.4	1.3	2.40	1.30	1.38	1.00	1.47	3.11
Methoxychlor	N/A	0.03	N/A	0.0300	N/A	0.0231	0.0339	0.0718
Mirex	N/A	0.001	N/A	0.00100	N/A	0.000770	0.00113	0.00239
Nickel	338	37.5	897	99.7	514	76.8	112	238
Nonylphenol	28	6.6	28.0	6.60	16.0	5.08	7.47	15.8
Parathion (ethyl)	0.065	0.013	0.0650	0.0130	0.0372	0.0100	0.0147	0.0311
Pentachlorophenol	9.6	7.4	9.65	7.40	5.53	5.70	8.12	17.1
Phenanthrene	30	30	30.0	30.0	17.2	23.1	25.2	53.4
Polychlorinated Biphenyls [PCBs]	2.0	0.014	2.00	0.0140	1.15	0.0108	0.0158	0.0335
Selenium	20	5	20.0	5.00	11.5	3.85	5.65	11.9
Silver	0.8	N/A	9.98	N/A	5.72	N/A	8.41	17.7
Toxaphene	0.78	0.0002	0.780	0.000200	0.447	0.000154	0.000226	0.000478
Tributyltin [TBT]	0.13	0.024	0.130	0.0240	0.0745	0.0185	0.0271	0.0574
2,4,5 Trichlorophenol	136	64	136	64.0	77.9	49.3	72.4	153
Zinc	85	85	333	336	191	259	280	594

HUMAN HEALTH

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS: Water and Incidental Fish Fish Only Fish Criterion Criterion Criterion WLAh LTAh Daily Avg. Parameter (µg/L) (µg/L) (µg/L) (µg/L) (µg/L) (µg/L) Acrylonitrile 1.0 115 1150 116 108 158 Aldrin 1.146E-05 1.147E-05 1.147E-04 0.0000116 0.0000108 0.0000158 Anthracene 1109 1317 13170 1331 1238 1819

Daily

Max.

(µg/L)

0.0000335

336

3850

Arsenic 10 N/A N/A N/A N/A N/A N/A Barium 2000 N/A N/A N/A N/A N/A N/A Benzene 5 581 5810 587 546 802 Benzola 0.0015 0.107 1.07 0.108 0.101 0.147 Benzo(a)anthracene 0.0024 0.025 0.25 0.0253 0.0235 0.0345 Benzo(a)pyrene 0.0025 0.0025 0.025 0.0253 0.00235 0.0345 Bis(chloromethyl)ether 0.60 42.83 428.3 43.3 40.3 59.1 Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate] 6 7.55 7.63 7.10 10.4 Bromodichloromethane [Dichlorobromomethane] 10.2 275 2750 278 259 380 Bromoform [Tribromomethane] 66.9 1060 10600 1071 996 1464 Cadmium 5 N/A N/A N/A	N/A N/A 1698 0.312 0.0730 0.00730
Benzene 5 581 5810 587 546 802 Benzidine 0.0015 0.107 1.07 0.108 0.101 0.147 Benzo(a)anthracene 0.024 0.025 0.25 0.0253 0.0235 0.0345 Benzo(a)pyrene 0.0025 0.0025 0.025 0.0253 0.00235 0.00345 Bis(chloromethyl)ether 0.0024 0.2745 2.745 0.277 0.258 0.379 Bis(2-chloroethyl)ether 0.60 42.83 428.3 43.3 40.3 59.1 Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate] 6 7.55 7.63 7.10 10.4 Bromodichloromethane [Dichlorobromomethane] 10.2 275 2750 278 259 380 Bromoform [Tribromomethane] 66.9 1060 1071 996 1464 Cadmium 5 N/A N/A N/A N/A N/A N/A Carbon Tetrachloride 4.5 46 460 46.5	1698 0.312 0.0730 0.00730
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Benzo(a)anthracene 0.024 0.025 0.25 0.0253 0.0235 0.0345 Benzo(a)pyrene 0.0025 0.0025 0.025 0.025 0.00253 0.00235 0.00345 Bis(chloromethyl)ether 0.0024 0.2745 2.745 0.277 0.258 0.379 Bis(2-chloroethyl)ether 0.60 42.83 428.3 43.3 40.3 59.1 Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate] 6 7.55 7.63 7.10 10.4 Bromodichloromethane [Dichlorobromomethane] 10.2 275 2750 278 259 380 Bromoform [Tribromomethane] 66.9 1060 1071 996 1464 Cadmium 5 N/A N/A N/A N/A N/A N/A Carbon Tetrachloride 4.5 46 460 46.5 43.2 63.5	0.0730 0.00730
Benzo(a)pyrene 0.0025 0.0025 0.0025 0.00253 0.00235 0.00345 Bis(chloromethyl)ether 0.0024 0.2745 2.745 0.277 0.258 0.379 Bis(2-chloroethyl)ether 0.60 42.83 428.3 43.3 40.3 59.1 Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate] 6 7.55 7.63 7.10 10.4 Bromodichloromethane [Dichlorobromomethane] 10.2 275 2750 278 259 380 Bromoform [Tribromomethane] 66.9 1060 1071 996 1464 Cadmium 5 N/A N/A N/A N/A N/A N/A Carbon Tetrachloride 4.5 46 460 46.5 43.2 63.5	0.00730
Bis(chloromethyl)ether 0.0024 0.2745 2.745 0.277 0.258 0.379 Bis(2-chloroethyl)ether 0.60 42.83 428.3 43.3 40.3 59.1 Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate] 6 7.55 7.63 7.10 10.4 Bromodichloromethane [Dichlorobromomethane] 10.2 275 2750 278 259 380 Bromoform [Tribromomethane] 66.9 1060 1071 996 1464 Cadmium 5 N/A N/A N/A N/A N/A N/A Carbon Tetrachloride 4.5 46 460 46.5 43.2 63.5	
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Bromoform [Tribromomethane] 66.9 1060 1071 996 1464 Cadmium 5 N/A N/A N/A N/A N/A N/A Carbon Tetrachloride 4.5 46 460 46.5 43.2 63.5	22.0
Cadmium 5 N/A N/A N/A N/A N/A Carbon Tetrachloride 4.5 46 460 46.5 43.2 63.5	803
Carbon Tetrachloride 4.5 46 460 46.5 43.2 63.5	3098
	N/A
Chlordano 0.0025 0.0025 0.0025 0.0025 0.0025 0.00255 0.00245	134
Ciliordalle 0.0025 0.0025 0.0025 0.00255 0.00255 0.00255	0.00730
Chlorobenzene 100 2737 27370 2766 2573 3782	8001
Chlorodibromomethane [Dibromochloromethane] 7.5 183 1830 185 172 252	534
Chloroform [Trichloromethane] 70 7697 76970 7780 7235 10635	22501
Chromium (hexavalent) 62 502 5020 507 472 693	1467
Chrysene 2.45 2.52 25.2 2.55 2.37 3.48	7.36
Cresols [Methylphenols] 1041 9301 93010 9401 8743 12852	27191
Cyanide (free) 200 N/A N/A N/A N/A N/A	N/A
4,4'-DDD 0.002 0.002 0.02 0.00202 0.00188 0.00276	0.00584
4,4'-DDE 0.00013 0.0013 0.0013 0.000131 0.000122 0.000179	0.000380
4,4'-DDT 0.0004 0.0004 0.000404 0.000376 0.000552	0.00116
2,4'-D 70 N/A N/A N/A N/A N/A	N/A
Danitol [Fenpropathrin] 262 473 4730 478 445 653	1382
1,2-Dibromoethane [Ethylene Dibromide] 0.17 4.24 42.4 4.29 3.99 5.85	12.3
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene] 322 595 5950 601 559 822	1739
<i>o</i> -Dichlorobenzene [1,2-Dichlorobenzene] 600 3299 32990 3335 3101 4558	9644
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene] 75 N/A N/A N/A N/A N/A	N/A
3,3'-Dichlorobenzidine 0.79 2.24 22.4 2.26 2.11 3.09	6.54
1,2-Dichloroethane 5 364 3640 368 342 502	1064
1,1-Dichloroethylene [1,1-Dichloroethene] 7 55114 551140 55708 51808 76157	161123
Dichloromethane [Methylene Chloride] 5 13333 133330 13477 12533 18423	38978
1,2-Dichloropropane 5 259 2590 262 243 357	757
1,3-Dichloropropene [1,3-Dichloropropylene] 2.8 119 1190 120 112 164	347
Dicofol [Kelthane] 0.30 0.30 3 0.303 0.282 0.414	0.877
Dieldrin 2.0E-05 2.0E-05 2.0E-04 0.0000202 0.0000188 0.0000276	0.0000584
2,4-Dimethylphenol 444 8436 84360 8527 7930 11657	24662
Di- <i>n</i> -Butyl Phthalate 88.9 92.4 924 93.4 86.9 127	270
Dioxins/Furans [TCDD Equivalents] 7.80E-08 7.97E-08 7.97E-07 8.06E-08 7.49E-08 1.10E-07	2.32E-07
Endrin 0.02 0.02 0.2 0.0202 0.0188 0.0276	0.0584
Epichlorohydrin 53.5 2013 20130 2035 1892 2781	5884
Ethylbenzene 700 1867 18670 1887 1755 2579	5458
Ethylene Glycol 46744 1.68E+07 1.68E+08 16980970 15792302 23214683	49114058
Fluoride 4000 N/A N/A N/A N/A N/A	N/A
Heptachlor 8.0E-05 0.0001 0.000101 0.0000940 0.000138	0.000292
Heptachlor Epoxide 0.00029 0.00029 0.0029 0.000293 0.000273 0.000400	0.000847
Hexachlorobenzene 0.00068 0.00068 0.00068 0.000687 0.000639 0.000939	0.00198
Hexachlorobutadiene 0.21 0.22 2.2 0.207 0.304	0.643
Hexachlorocyclohexane (alpha) 0.0078 0.0084 0.00849 0.00790 0.0116	0.0245
Hexachlorocyclohexane (beta) 0.15 0.26 2.6 0.263 0.244 0.359	0.760
Hexachlorocyclohexane (gamma) [Lindane] 0.2 0.341 3.41 0.345 0.321 0.471	0.996
Hexachlorocyclopentadiene 10.7 11.6 116 11.7 10.9 16.0	33.9

Hexachloroethane	1.84	2.33	23.3	2.36	2.19	3.21	6.81
Hexachlorophene	2.05	2.90	29	2.93	2.73	4.00	8.47
4,4'-Isopropylidenediphenol	1092	15982	159820	16154	15023	22084	46722
Lead	1.15	3.83	38.3	23.1	21.5	31.5	66.8
Mercury	0.0122	0.0122	0.122	0.0123	0.0115	0.0168	0.0356
Methoxychlor	2.92	3.0	30	3.03	2.82	4.14	8.77
Methyl Ethyl Ketone	13865	9.92E+05	9.92E+06	1002686	932498	1370771	2900068
Methyl tert-butyl ether [MTBE]	15	10482	104820	10595	9853	14484	30643
Nickel	332	1140	11400	3061	2846	4184	8852
Nitrate-Nitrogen (as Total Nitrogen)	10000	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	45.7	1873	18730	1893	1761	2588	5475
N-Nitrosodiethylamine	0.0037	2.1	21	2.12	1.97	2.90	6.13
N-Nitroso-di-n-Butylamine	0.119	4.2	42	4.25	3.95	5.80	12.2
Pentachlorobenzene	0.348	0.355	3.55	0.359	0.334	0.490	1.03
Pentachlorophenol	0.22	0.29	2.9	0.293	0.273	0.400	0.847
Polychlorinated Biphenyls [PCBs]	6.4E-04	6.4E-04	6.40E-03	0.000647	0.000602	0.000884	0.00187
Pyridine	23	947	9470	957	890	1308	2768
Selenium	50	N/A	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	0.23	0.24	2.4	0.243	0.226	0.331	0.701
1,1,2,2-Tetrachloroethane	1.64	26.35	263.5	26.6	24.8	36.4	77.0
Tetrachloroethylene [Tetrachloroethylene]	5	280	2800	283	263	386	818
Thallium	0.12	0.23	2.3	0.232	0.216	0.317	0.672
Toluene	1000	N/A	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.011	0.011	0.11	0.0111	0.0103	0.0152	0.0321
2,4,5-TP [Silvex]	50	369	3690	373	347	509	1078
1,1,1-Trichloroethane	200	784354	7843540	792803	737307	1083841	2293024
1,1,2-Trichloroethane	5	166	1660	168	156	229	485
Trichloroethylene [Trichloroethene]	5	71.9	719	72.7	67.6	99.3	210
2,4,5-Trichlorophenol	1039	1867	18670	1887	1755	2579	5458
TTHM [Sum of Total Trihalomethanes]	80	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	0.23	16.5	165	16.7	15.5	22.8	48.2

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

Aquatic Life	70% of Daily Avg.	85% of Daily Avg.
Parameter	(μg/L)	(µg/L)
Aldrin	1.76	2.14
Aluminum	584	709
Arsenic	241	292
Cadmium	0.559	0.679
Carbaryl	1.17	1.43
Chlordane	0.00316	0.00384
Chlorpyrifos	0.0324	0.0394
Chromium (trivalent)	215	261
Chromium (hexavalent)	8.39	10.1
Copper	17.1	20.8
Cyanide (free)	8.47	10.2
4,4'-DDT	0.000792	0.000962
Demeton	0.0792	0.0962
Diazinon	0.100	0.121
Dicofol [Kelthane]	15.6	19.0
Dieldrin	0.00158	0.00192
Diuron	55.4	67.3
Endosulfan I (<i>alpha</i>)	0.0443	0.0538

0443 0443 0158 0792 0316 0633	0.0538 0.0538 0.00192 0.00962
)158)792)316	0.00192
)792)316	0.00962
0316	
	0.0000
)633	0.00384
	0.0769
7.79	9.47
)792	0.00962
1.03	1.25
)237	0.0288
)792	0.000962
78.9	95.9
5.22	6.34
0103	0.0125
5.68	6.90
17.6	21.4
0110	0.0134
3.96	4.81
5.88	7.14
)158	0.000192
	0.0230
)190	61.5
	238
	5.88 0158 0190 50.7 196

Human Health	70% of Daily Avg.	85% of Daily Avg.
Parameter	(μg/L)	(μg/L)
Acrylonitrile	111	135
Aldrin	0.0000110	0.0000134
Anthracene	1273	1546
Antimony	1035	1257
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	561	682
Benzidine	0.103	0.125
Benzo(a)anthracene	0.0241	0.0293
Benzo(a)pyrene	0.00241	0.00293
Bis(chloromethyl)ether	0.265	0.322
Bis(2-chloroethyl)ether	41.4	50.3
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	7.30	8.86
Bromodichloromethane [Dichlorobromomethane]	266	323
Bromoform [Tribromomethane]	1025	1245
Cadmium	N/A	N/A
Carbon Tetrachloride	44.4	54.0
Chlordane	0.00241	0.00293
Chlorobenzene	2647	3214
Chlorodibromomethane [Dibromochloromethane]	177	214
Chloroform [Trichloromethane]	7445	9040
Chromium (hexavalent)	485	589
Chrysene	2.43	2.95
Cresols [Methylphenols]	8996	10924
Cyanide (free)	N/A	N/A
4,4'-DDD	0.00193	0.00234
4,4'-DDE	0.000125	0.000152
4,4'-DDT	0.000386	0.000469

1.1.1 1.1.1 1.1.1 Danitol [Fenpropathrin] 457 555 1.2-Dibbromoethane [Ithylene Dibromide] 4.10 4.98 m-Dichlorobenzene [1,3-Dichlorobenzene] 3151 3374 p-Dichlorobenzene [1,4-Dichlorobenzene] 111 3174 p-Dichlorobenzene [1,4-Dichlorobenzene] N/A N/A 3,3-Dichlorobenzene [1,4-Dichloroethene] 53310 64734 Dichloropersethane 352 427 1,4-Dichloroperapane 250 304 1,2-Dichloroppane 155 9908 Diedrin 0.000033 0.0000234 2,4-Dimethylphenol 8159 9908 Di-autyl Phthalate 89.3 108 Dioxins/Furan [TCDD Equivalents] 7.70E-08 9.36E-08 Endrin 0.0133 0.0234 Epichlorohydrin 1947 2364 Ethylene Glycol 16250278 19732481 Fluoride N/A N/A Hexachlorobydraine 0.212 0.251 Hexachlorocyclohexane (alpha) <td< th=""><th>2,4'-D</th><th>N/A</th><th>N/A</th></td<>	2,4'-D	N/A	N/A
1,2-Dibromoethane [Ethylene Dibromide] 4.10 4.98 m-Dichlorobenzene [1,3-Dichlorobenzene] 3191 3874 -Dichlorobenzene [1,4-Dichlorobenzene] 3191 3874 -Dichlorobenzene [1,4-Dichlorobenzene] N/A N/A 3,3-Dichlorobenzene [1,1-Dichlorobenzene] N/A N/A 1,1-Dichloroethane 352 427 1,1-Dichloroethane 53310 64734 Dichloromethane [Methylene Chloride] 12896 15660 1,2-Dichloropopane 250 304 1,3-Dichloropopane 0.290 0.352 Dicofol [Kethane] 0.290 0.352 Dicofol [Kethane] 7.00E-08 9.36E-08 Di-n-Butyl Phthalate 89.3 108 Dichr.Strums [TCDD Equivalents] 7.70E-08 9.36E-08 Endrin 0.0193 0.0234 Epichlorohydrin 1947 2364 Ethylenerae 1805 2129 Ethylenerae 0.000280 0.000341 Hexachlorobylateline 0.212 0.258 Hexac		· ·	
m-Dichlorobenzene [1,3-Dichlorobenzene] 575 698 a-Dichlorobenzene [1,4-Dichlorobenzene] 3191 3874 p-Dichlorobenzene [1,4-Dichlorobenzene] N/A N/A 3,3-Dichlorobenzidine 2.16 2.63 1,2-Dichloroethane 352 427 1,1-Dichloroethane [Methylene Chloride] 12896 15560 1,2-Dichloropropane 250 304 1,3-Dichloropropane [1,3-Dichloropropylene] 1115 139 Dicofol [kelthane] 0.200 0.352 Dichloromethylphenol 8159 9908 Di-n-Butyl Phthalate 89.3 108 Dioxins/Furans [TCDD Equivalents] 7.70E-08 9.36E-08 Endrin 0.0193 0.0234 Elbylenzene 1805 2192 Ethylene Giycol 16250278 19732481 Fluoride N/A N/A Hexachloroberzene 0.00057 0.000171 Heptachlor fpoxide 0.000657 0.00078 Hexachlorocyclohexane (<i>apma</i>) 0.0251 0.3251 H			
o-Dichlorobenzene [1,2-Dichlorobenzene] 3191 3874 p-Dichlorobenzene [1,4-Dichlorobenzene] N/A N/A 3,3'-Dichlorobenzidine 2.16 2.63 1,2-Dichloroethane 352 4277 1,1-Dichloroethane 152 4277 1,1-Dichloroethane 152 4277 1,2-Dichloropotena 1580 64734 Dichloropropane 250 304 1,3-Dichloropropane 0.0000193 0.0000234 2,4-Dimethylphenol 8159 9908 Di-n-Buryl Phthalate 89.3 108 Dioxins/Furans [TCDD Equivalents] 7.70E-08 9.36E-08 Endrin 0.0193 0.000234 Epichlorohydrin 1947 2346 Ethylene Giycol 16250278 19732481 Fluoride N/A N/A Heptachlor 0.000657 0.00017 Heptachlor Epoxide 0.000260 0.000340 Hexachlorocyclohexane (apha) 0.0212 0.258 Hexachlorocyclohexane (apha) 0.02251			
p-Dichlorobenzene [1,4-Dichlorobenzene] N/A N/A 3.3-Dichloroethane 2.16 2.63 1,2-Dichloroethane 352 427 J.1-Dichloroethylene [1,1-Dichloroethene] 5310 64734 Dichloropropane 250 304 1,3-Dichloropropane 0.20 0.352 Dicofol [Keithane] 0.190 0.000034 2,4-Dimethylphenol 8159 9908 Dicvinyl Phthalate 89.3 108 Dioxins/Furans [TCDD Equivalents] 7.70E-08 9.36E-08 Endrin 0.0193 0.000234 Epichlorohydrin 1947 2364 Ethylene Glycol 16250278 19732481 Fluoride N/A N/A Heyachlor Expoxide 0.000340 0.00340 Hexachlorocyclohexane (apha) 0.00812 0.00084 Hexachlorocyclohexane (apha) 0.0212 0.0258 Hexachlorocyclohexane (apha) 0.00812 0.00084 Hexachlorocyclohexane (apha) 0.0218 0.0143 Hexachlorocyclohexane (aph	•·· •·		
3,3·Dichlorobenzidine 2.16 2.63 1,2·Dichloroethane 352 427 1,1-Dichloroethylene [1,1-Dichloroethene] 53310 64734 Dichloromethane [Methylene Chloride] 12896 15560 1,2-Dichloropropane 250 304 1,3-Dichloropropene [1,3-Dichloropropylene] 1115 139 Dicofol [Kelthane] 0.200 0.352 Dieldrin 0.0000193 0.00023 Dio-nsutyl Phthalate 89.3 108 Dioxins/Furans [TCDD Equivalents] 7.70E-08 9.36E-08 Endrin 0.0193 0.02234 Epichlorohydrin 1947 2364 Ethylene Glycol 16250278 19732481 Fluoride N/A N/A Hexachlorobutadiene 0.212 0.258 Hexachlorobutadiene 0.212 0.258 Hexachlorocyclohexane (<i>apha</i>) 0.00812 0.000966 Hexachlorocyclohexane (<i>apha</i>) 0.02312 0.258 Hexachlorocyclohexane (<i>apha</i>) 0.251 0.332 Hexachloroc			
1,2-Dichloroethylene [1,1-Dichloroethene] 53310 64734 Dichloroorthylene [1,1-Dichloropthene] 12896 15660 1,2-Dichloropropane 250 304 1,3-Dichloropropene [1,3-Dichloropropylene] 115 139 Dicolo [Kelthane] 0.0290 0.352 Dieldrin 0.0000193 0.0000234 2,4-Dimethylphenol 8159 9908 Din-n-Butyl Phthalate 89.3 108 Dixins/Furans [TCDD Equivalents] 7.70E-08 9.36E-08 Endrin 0.0193 0.0234 Epichlorohydrin 1947 2364 Ehylene Glycol 16250278 19732481 Fluoride N/A N/A Heptachlor 0.000280 0.000340 Heexachlorobenzene 0.000657 0.000798 Hexachlorocyclohexane (<i>lapha</i>) 0.00812 0.00986 Hexachlorocyclohexane (<i>lapha</i>) 0.00812 0.00986 Hexachlorocyclohexane (<i>lapha</i>) 0.0212 0.251 0.305 Hexachlorocyclohexane (<i>leta</i>) 0.251 0.305 <td>· · · · · ·</td> <td></td> <td></td>	· · · · · ·		
1,1-Dichloroethylene [1,1-Dichloroethene] 53310 64734 Dichloromethane [Methylene Chloride] 12896 15660 1,2-Dichloropropane 250 304 1,3-Dichloropropane [1,3-Dichloropropylene] 115 139 Dicofol [Kelthane] 0.290 0.352 Dieldrin 0.0000234 2,4-Dimethylphenol 8159 9908 Dir.n-Butyl Phthalate 99.3 108 0.00234 Dioxins/Furans [TCDD Equivalents] 7.70E-08 9.36E-08 Endrin 0.0193 0.0234 Epichlorohydrin 1947 2364 Ethylenezne 1805 2192 Ethylenezne 1805 0.000370 Hexachlorobydrin 0.000657 0.00017 Heptachlor 0.000657 0.000798 Hexachlorobutadiene 0.251 0.305 Hexachlorocyclohexane (<i>alpha</i>) 0.00812 0.00984 Hexachlorocyclohexane (<i>alpha</i>) 0.00812 0.00984 Hexachlorocyclohexane (<i>alpha</i>) 0.325 0.340 Hexachlorocyclohexane (<i>alpha</i>			
Dichloromethane [Methylene Chloride] 12896 15660 1,2-Dichloropropane 250 304 1,3-Dichloropropane 115 139 Dicofol [Keithane] 0.290 0.352 Dieldrin 0.0000133 0.0000234 2,4-Dimethylphenol 8159 9908 Di-n-Butyl Phthalate 89.3 108 Dioxins/Furans [TCDD Equivalents] 7.70E-08 9.36E-08 Endrin 0.0193 0.000234 Epichlorohydrin 1947 2364 Ethylbenzene 1805 2192 Ethylbene Glycol 16250278 19732481 Fluoride N/A N/A Heptachlor 0.000067 0.000117 Heptachlor Epoxide 0.000280 0.000340 Hexachlorocyclohexane (apha) 0.00181 0.00986 Hexachlorocyclohexane (apha) 0.00181 0.00986 Hexachlorocyclohexane (apha) 0.251 0.305 Hexachlorocyclohexane (apha) 0.251 0.305 Hexachlorocyclohexane (apha) 0.251 <td></td> <td>53310</td> <td>64734</td>		53310	64734
1,3-Dichloropropene [1,3-Dichloropropylene] 115 139 Dicofol [Ketthane] 0.200 0.352 Dieldrin 0.0000193 0.0000234 2,4-Dimethylphenol 8159 9908 Dioxins/Furans [TCDD Equivalents] 7.70E-08 9.36E-08 Endrin 0.0193 0.0234 Epichlorohydrin 1947 2364 Ethylbenezne 1805 2192 Ethylenezne 1805 2192 Ethylene Glycol 16250278 19732481 Fluoride N/A N/A Hetxachlor Epoxide 0.000057 0.000179 Hetxachlorobutadiene 0.212 0.258 Hexachlorocyclohexane (<i>alpha</i>) 0.00812 0.00986 Hexachlorocyclohexane (<i>alpha</i>) 0.00812 0.000867 Hexachlorocyclohexane (<i>alpha</i>) 0.0113 0.400 Hexachlorocyclohexane (<i>alpha</i>) 0.251 0.305 Hexachlorocyclohexane (<i>alpha</i>) 0.251 0.305 Hexachlorocyclohexane (<i>alpha</i>) 0.0113 0.400 Hexachlorocy	Dichloromethane [Methylene Chloride]	12896	15660
Dicofol [ketthane] 0.290 0.352 Dieldrin 0.0000193 0.0000234 2,4-Dimethylphenol 8159 9908 Di-n-Butyl Phthalate 89.3 108 Dioxins/Furans [TCDD Equivalents] 7.70E-08 9.36E-08 Endrin 0.0193 0.0234 Epichlorohydrin 1947 2364 Ethylbenzene 1805 2192 Ethylbenzene 1805 2192 Ethylbenzene 0.000967 0.000117 Heptachlor 0.0000967 0.000117 Heptachlor Epoxide 0.000280 0.000340 Hexachlorobutadiene 0.212 0.258 Hexachlorocyclohexane (<i>alpha</i>) 0.00812 0.00986 Hexachlorocyclohexane (<i>alpha</i>) 0.00812 0.00986 Hexachlorocyclohexane (<i>alpha</i>) 0.0251 0.305 Hexachlorocyclohexane (<i>alpha</i>) 0.00812 0.00986 Hexachlorocyclohexane (<i>alpha</i>) 0.0117 112 13.6 Hexachlorocyclohexane (<i>beta</i>) 0.251 0.305 He	1,2-Dichloropropane	250	304
Dieldrin 0.0000193 0.0000234 2,4-Dimethylphenol 8159 9908 Di-n-Butyl Phthalate 89.3 108 Dioxins/Furans [TCDD Equivalents] 7.70E-08 9.36E-08 Endrin 0.0193 0.0234 Epichlorohydrin 1947 2364 Ethylbenzene 1805 2192 Ethylene Glycol 16250278 19732481 Fluoride N/A N/A Heptachlor 0.000367 0.000178 Hexachlorobutadiene 0.212 0.258 Hexachlorocyclohexane (<i>beta</i>) 0.251 0.305 Hexachlorocyclohexane (<i>bet</i>	1,3-Dichloropropene [1,3-Dichloropropylene]	115	139
2,4-Dimethylphenol 8159 9908 Di-n-Butyl Phthalate 89.3 108 Dioxins/Furans [TCDD Equivalents] 7.70E-08 9.36E-08 Endrin 0.0193 0.0234 Epichlorohydrin 1947 236E Ethylbenzene 1805 2192 Ethylbenzene 1805 2192 Ethylene Glycol 16250278 19732481 Fluoride N/A N/A Hetachlor 0.000280 0.000340 Hexachlorobutadiene 0.212 0.258 Hexachlorocyclohexane (alpha) 0.00812 0.00986 Hexachlorocyclohexane (alpha) 0.251 0.305 Hexachlorocyclohexane (alpha) 0.251 0.305 Hexachlorocyclohexane (alpha) 0.251 0.305 Hexachlorocyclohexane (gamma) [Lindane] 0.329 0.400 Hexachlorocyclohexane (seta) 2.25 2.73 Hexachlorocyclohexane (seta) 0.211 26.8 Metroury 0.0118 0.0143 Metroury 0.0118 0.	Dicofol [Kelthane]	0.290	0.352
Di-n-Butyl Phthalate 89.3 108 Dioxins/Furans [TCDD Equivalents] 7.70E-08 9.36E-08 Endrin 0.0193 0.0234 Epichlorohydrin 1947 2364 Ethylbenzene 1805 2192 Ethylbene Glycol 16250278 19732481 Fluoride N/A N/A Heptachlor 0.0000967 0.000117 Heptachlor Epoxide 0.000280 0.000340 Hexachlorobenzene 0.00057 0.000986 Hexachlorocyclohexane (alpha) 0.00812 0.00986 Hexachlorocyclohexane (bta) 0.251 0.305 Hexachlorocyclohexane (bta) 0.251 0.305 Hexachlorocyclohexane (alpha) 0.00812 0.00986 Hexachlorocyclohexane (bta) 0.251 0.305 Hexachlorocyclohexane (bta) 0.251 0.305 Hexachlorocyclohexane (bta) 0.251 0.3040 4/4'soporpylidenediphenol 15459 18771 Lead 22.1 26.8 Mercury 0.0118	Dieldrin	0.0000193	0.0000234
Dioxins/Furans [TCDD Equivalents] 7.70E-08 9.36E-08 Endrin 0.0193 0.0234 Epichlorohydrin 1947 2364 Ethylbenzene 1805 2192 Ethylben Glycol 16250278 19732481 Fluoride N/A N/A Heptachlor 0.0000967 0.000117 Heptachlor Epoxide 0.000280 0.000340 Hexachlorobutadiene 0.212 0.258 Hexachlorocyclohexane (<i>apha</i>) 0.00812 0.00986 Hexachlorocyclohexane (<i>beta</i>) 0.251 0.3029 Hexachlorocyclohexane (<i>beta</i>) 0.251 0.302 Hexachlorocyclohexane (<i>beta</i>) 0.251 0.3040 Hexachlorocyclohexane (<i>beta</i>) 1.5459 1.8771 Lead 2.21 2.68 Mercury	2,4-Dimethylphenol	8159	9908
Endrin 0.0193 0.0234 Epichlorohydrin 1947 2364 Ethylbenzene 1805 2192 Ethylene Glycol 16250278 19732481 Fluoride N/A N/A Heptachlor 0.0000967 0.000117 Heptachlor Epoxide 0.000280 0.000280 Hexachlorobutadiene 0.212 0.258 Hexachlorocyclohexane (<i>alpha</i>) 0.00812 0.00986 Hexachlorocyclohexane (<i>lagmma</i>) [Lindane] 0.329 0.400 Hexachlorocyclohexane (<i>gamma</i>) [Lindane] 0.329 0.400 Hexachlorocyclopentadiene 11.2 13.6 Hexachlorocyclopentadiene 11.2 13.6 Hexachlorocyclopentadiene 2.25 2.73 Hexachlorocyclopentadiene 2.25 2.73 Hexachlorocyclopentadiene 2.21 26.8 Mercury 0.0118 0.0143 Methoxychlor 2.90 3.52 Methyl Ethyl Ketone 959540 1165156 Methyl tether [MTBE] 10139	Di- <i>n</i> -Butyl Phthalate	89.3	108
Epichlorohydrin 1947 2364 Ethylbenzene 1805 2192 Ethylene Glycol 16250278 19732481 Fluoride N/A N/A Heptachlor 0.0000967 0.000117 Heptachlor Epoxide 0.000280 0.000340 Hexachlorobenzene 0.000657 0.00079 Hexachlorocyclohexane (alpha) 0.00812 0.00986 Hexachlorocyclohexane (beta) 0.251 0.305 Hexachlorocyclohexane (gamma) [Lindane] 0.329 0.400 Hexachlorocyclohexane (gamma) [Lindane] 0.329 0.400 Hexachlorocyclopentadiene 11.2 13.6 Hexachlorophene 2.80 3.40 4.4'-Isopropylidenediphenol 15459 18771 Lead 22.1 26.8 Mercury 0.0118 0.0143 Methoxychlor 2.90 3.52 Methyl tethyl Ketone 959540 1165156 Methyl tethyl Ketone 959540 1165156 Nitrate-Nitrogen (as Total Nitrogen) N/A	Dioxins/Furans [TCDD Equivalents]	7.70E-08	9.36E-08
Ethylbenzene 1805 2192 Ethylene Glycol 16250278 19732481 Fluoride N/A N/A Heptachlor 0.0000967 0.000117 Heptachlor Epoxide 0.000280 0.000340 Hexachlorobenzene 0.000657 0.000798 Hexachlorocyclohexane (alpha) 0.0121 0.258 Hexachlorocyclohexane (beta) 0.251 0.305 Hexachlorocyclohexane (beta) 0.251 0.305 Hexachlorocyclohexane (gamma) [Lindane] 0.329 0.400 Hexachlorocyclopentadiene 11.2 13.6 Hexachlorocyclopentadiene 11.2 13.6 Hexachlorocyclopentadiene 2.25 2.73 Hexachlorophene 2.80 3.40 4,4'-Isopropylidenediphenol 15459 18771 Lead 22.1 26.8 Mercury 0.0118 0.0118 Methyl tert-butyl ether [MTBE] 10139 12311 Nickel 2928 3556 Nitrobenzene 2.03 2.46 </td <td>Endrin</td> <td>0.0193</td> <td>0.0234</td>	Endrin	0.0193	0.0234
Ethylene Glycol 16250278 19732481 Fluoride N/A N/A Heptachlor 0.0000967 0.000117 Heptachlor Epoxide 0.000280 0.000340 Hexachlorobenzene 0.000657 0.000798 Hexachlorobutadiene 0.212 0.258 Hexachlorocyclohexane (<i>alpha</i>) 0.00812 0.00986 Hexachlorocyclohexane (<i>beta</i>) 0.251 0.305 Hexachlorocyclohexane (<i>gamma</i>) [Lindane] 0.329 0.400 Hexachlorocyclopentadiene 11.2 13.6 Hexachlorocyclopentadiene 11.2 13.6 Hexachlorocyclopentadiene 2.25 2.73 Hexachlorophene 2.80 3.40 4,4'-Isopropylidenediphenol 15459 18771 Lead 22.1 26.8 Mercury 0.0118 0.0143 Methoxychlor 2.90 3.52 Methyl Ketone 959540 1165156 Methyl tert-butyl ether [MTBE] 10139 12311 Nickel 2928 3556	Epichlorohydrin	1947	2364
Fluoride N/A N/A Heptachlor 0.0000967 0.000117 Heptachlor Epoxide 0.000280 0.000340 Hexachlorobenzene 0.000657 0.000798 Hexachlorobutadiene 0.212 0.258 Hexachlorocyclohexane (alpha) 0.00812 0.00986 Hexachlorocyclohexane (beta) 0.251 0.305 Hexachlorocyclopentadiene 11.2 13.6 Hexachlorocyclopentadiene 11.2 13.6 Hexachlorocyclopentadiene 2.25 2.73 Hexachlorocyclopentadiene 2.80 3.40 4,4'-Isopropylidenediphenol 15459 18771 Lead 22.1 26.8 Mercury 0.0118 0.0143 Methoxychlor 2.90 3.52 Methyl Ethyl Ketone 959540 1165156 Methyl tehyl Ketone 959540 1165156 Mitrate-Nitrogen (as Total Nitrogen) N/A N/A Nitrate-Nitrosodi-n-Butylamine 4.06 4.93 Pentachlorobenzene 0.343	Ethylbenzene	1805	2192
Heptachlor 0.0000967 0.000117 Heptachlor Epoxide 0.000280 0.000340 Hexachlorobenzene 0.000657 0.000798 Hexachlorobutadiene 0.212 0.258 Hexachlorocyclohexane (alpha) 0.00812 0.00986 Hexachlorocyclohexane (beta) 0.251 0.305 Hexachlorocyclohexane (gamma) [Lindane] 0.329 0.400 Hexachlorocyclopentadiene 11.2 13.6 Hexachlorocyclopentadiene 2.25 2.73 Hexachlorophene 2.80 3.40 4,4'-Isopropylidenediphenol 15459 18771 Lead 22.1 26.8 Mercury 0.0118 0.0143 Methoxychlor 2.90 3.52 Methyl Ethyl Ketone 959540 1165156 Methyl tert-butyl ether [MTBE] 10139 12311 Nickel 2928 3556 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A N-Nitrosodiethylamine 2.03 2.46 N-Nitrosodiethylamine 0.280	Ethylene Glycol	16250278	19732481
Heptachlor Epoxide 0.000280 0.000340 Hexachlorobenzene 0.000657 0.000798 Hexachlorobutadiene 0.212 0.258 Hexachlorocyclohexane (alpha) 0.00812 0.00986 Hexachlorocyclohexane (beta) 0.251 0.305 Hexachlorocyclohexane (gamma) [Lindane] 0.329 0.400 Hexachlorocyclopentadiene 11.2 13.6 Hexachlorochene 2.80 3.40 4,4'-Isopropylidenediphenol 15459 18771 Lead 22.1 26.8 Mercury 0.0118 0.0143 Methoxychlor 2.90 3.52 Methyl Ethyl Ketone 959540 1165156 Methyl Ethyl Ketone 959540 1165156 Methyl tert-butyl ether [MTBE] 10139 12311 Nickel 2928 3556 Nitroso-di-n-Butylamine 4.06 4.93 Pentachlorobenzene 0.343 0.416 Pentachlorobenzene 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 <td>Fluoride</td> <td>N/A</td> <td>N/A</td>	Fluoride	N/A	N/A
Hexachlorobenzene 0.000657 0.000798 Hexachlorobutadiene 0.212 0.258 Hexachlorocyclohexane (alpha) 0.00812 0.00986 Hexachlorocyclohexane (beta) 0.251 0.305 Hexachlorocyclohexane (gamma) [Lindane] 0.329 0.400 Hexachlorocyclopentadiene 11.2 13.6 Hexachlorocyclopentadiene 2.25 2.73 Hexachlorophene 2.80 3.40 4,4'-Isopropylidenediphenol 15459 18771 Lead 22.1 26.8 Mercury 0.0118 0.0143 Methoxychlor 2.90 3.52 Methyl Ethyl Ketone 959540 1165156 Methyl tert-butyl ether [MTBE] 10139 12311 Nickel 2928 3556 Nitrosodiethylamine 2.03 2.46 N-Nitrosodiethylamine 2.03 2.46 N-Nitrosodiethylamine 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 0.000751 Pyridine 916 <td< td=""><td>Heptachlor</td><td>0.0000967</td><td>0.000117</td></td<>	Heptachlor	0.0000967	0.000117
Hexachlorobutadiene 0.212 0.258 Hexachlorocyclohexane (alpha) 0.00812 0.00986 Hexachlorocyclohexane (beta) 0.251 0.305 Hexachlorocyclohexane (gamma) [Lindane] 0.329 0.400 Hexachlorocyclopentadiene 11.2 13.6 Hexachlorocyclopentadiene 2.25 2.73 Hexachlorophene 2.80 3.40 4,4'-Isopropylidenediphenol 15459 18771 Lead 22.1 26.8 Mercury 0.0118 0.0143 Methoxychlor 2.90 3.52 Methyl Ethyl Ketone 959540 1165156 Methyl tert-butyl ether [MTBE] 10139 12311 Nickel 2928 3556 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A N/A N/A N/A 93 Pentachlorobenzene 0.343 0.416 Pentachlorobenzene 0.343 0.416 Pentachlorobenzene 0.232 0.281 N/L2,2,5-Tetrachlorobenzene 0.232	Heptachlor Epoxide	0.000280	0.000340
Hexachlorocyclohexane (alpha) 0.00812 0.00986 Hexachlorocyclohexane (beta) 0.251 0.305 Hexachlorocyclohexane (gamma) [Lindane] 0.329 0.400 Hexachlorocyclopentadiene 11.2 13.6 Hexachlorocyclopentadiene 11.2 13.6 Hexachloroethane 2.25 2.73 Hexachlorophene 2.80 3.40 4,4'-Isopropylidenediphenol 15459 18771 Lead 22.1 26.8 Mercury 0.0118 0.0143 Methoxychlor 2.90 3.52 Methyl Ethyl Ketone 959540 1165156 Methyl tert-butyl ether [MTBE] 10139 12311 Nickel 2928 3556 Nitrobenzene 1811 2199 N-Nitrosodiethylamine 2.03 2.46 N-Nitrosodiethylamine 2.03 2.46 N-Nitroso-di-n-Butylamine 4.06 4.93 Pentachlorophenol 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 0.000		0.000657	0.000798
Hexachlorocyclohexane (beta) 0.251 0.305 Hexachlorocyclohexane (gamma) [Lindane] 0.329 0.400 Hexachlorocyclopentadiene 11.2 13.6 Hexachlorocyclopentadiene 11.2 13.6 Hexachlorocyclopentadiene 2.25 2.73 Hexachlorophene 2.80 3.40 4,4'-Isopropylidenediphenol 15459 18771 Lead 22.1 26.8 Mercury 0.0118 0.0143 Methoxychlor 2.90 3.52 Methyl Ethyl Ketone 959540 1165156 Methyl tert-butyl ether [MTBE] 10139 12311 Nickel 2928 3556 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A N/A N/A N/A Nitrobenzene 0.343 0.416 Pentachlorophenol 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 0.000751 Pyridine 916 1112 Selenium N/A N/A 1,1		0.212	
Hexachlorocyclohexane (beta) 0.251 0.305 Hexachlorocyclopentadiene 0.329 0.400 Hexachlorocyclopentadiene 11.2 13.6 Hexachlorocyclopentadiene 11.2 13.6 Hexachloroethane 2.25 2.73 Hexachlorophene 2.80 3.40 4,4'-Isopropylidenediphenol 15459 18771 Lead 22.1 26.8 Mercury 0.0118 0.0143 Methoxychlor 2.90 3.52 Methyl Ethyl Ketone 959540 1165156 Methyl tert-butyl ether [MTBE] 10139 12311 Nickel 2928 3556 Nitrobenzene 1811 2199 N-Nitrosodiethylamine 2.03 2.46 N-Nitroso-di-n-Butylamine 4.06 4.93 Pentachlorophenol 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 0.000751 Pyridine 916 1112 Selenium N/A N/A 1,1,2,4-5-Tetrach	Hexachlorocyclohexane (<i>alpha</i>)	0.00812	0.00986
Hexachlorocyclohexane (gamma) [Lindane] 0.329 0.400 Hexachlorocyclopentadiene 11.2 13.6 Hexachlorocyclopentadiene 11.2 13.6 Hexachlorocyclopentadiene 2.25 2.73 Hexachlorophene 2.80 3.40 4,4'-lsopropylidenediphenol 15459 18771 Lead 22.1 26.8 Mercury 0.0118 0.0143 Methoxychlor 2.90 3.52 Methyl Ethyl Ketone 959540 1165156 Methyl tert-butyl ether [MTBE] 10139 12311 Nickel 2928 3556 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A Ni-Nitrosodiethylamine 2.03 2.46 N-Nitrosodiethylamine 4.06 4.93 Pentachlorobenzene 0.343 0.416 Pentachlorobenzene 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 0.000751 Pyridine 916 1112 Selenium N/A N/A <		0.251	0.305
Hexachloroethane 2.25 2.73 Hexachlorophene 2.80 3.40 4,4'-Isopropylidenediphenol 15459 18771 Lead 22.1 26.8 Mercury 0.0118 0.0143 Methoxychlor 2.90 3.52 Methyl Ethyl Ketone 959540 1165156 Methyl tert-butyl ether [MTBE] 10139 12311 Nickel 2928 3556 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A N-Nitrosodiethylamine 2.03 2.46 N-Nitrosodiethylamine 4.06 4.93 Pentachlorobenzene 0.343 0.416 Pentachlorobenzene 0.343 0.416 Pentachlorobenzene 0.232 0.281 1,1,2,4,5-Tetrachlorobenzene 0.232 0.281 1,1,2,2-Tetrachloroethane 25.4 30.9 Tetrachloroethylene [Tetrachloroethylene] 270 328 Thallium 0.222 0.270 Toluene N/A N/A N/A		0.329	0.400
Hexachlorophene 2.80 3.40 4,4'-Isopropylidenediphenol 15459 18771 Lead 22.1 26.8 Mercury 0.0118 0.0143 Methoxychlor 2.90 3.52 Methyl Ethyl Ketone 959540 1165156 Methyl tert-butyl ether [MTBE] 10139 12311 Nickel 2928 3556 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A Nitrobenzene 1811 2199 N-Nitrosodiethylamine 2.03 2.46 N-Nitrosodiethylamine 4.06 4.93 Pentachlorobenzene 0.343 0.416 Pentachlorobenzene 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 0.000751 Pyridine 916 1112 Selenium N/A N/A 1,1,2,2-Tetrachlorobenzene 0.232 0.281 1,1,2,2-Tetrachloroethane 25.4 30.9 Tetrachloroethylene [Tetrachloroethylene] 270 328 <	Hexachlorocyclopentadiene	11.2	13.6
4,4'-Isopropylidenediphenol 15459 18771 Lead 22.1 26.8 Mercury 0.0118 0.0143 Methoxychlor 2.90 3.52 Methyl Ethyl Ketone 959540 1165156 Methyl Ethyl Ketone 959540 1165156 Methyl tert-butyl ether [MTBE] 10139 12311 Nickel 2928 3556 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A N-Nitrosodiethylamine 2.03 2.46 N-Nitroso-di-n-Butylamine 4.06 4.93 Pentachlorobenzene 0.343 0.416 Pentachlorobenzene 0.343 0.416 Pentachlorobenzene 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 0.000751 Pyridine 916 1112 Selenium N/A N/A 1,2,2,5-Tetrachlorobenzene 0.232 0.281 1,1,2,2-Tetrachloroethane 25.4 30.9 Tetrachloroethylene [Tetrachloroethylene] 270 328 <td>Hexachloroethane</td> <td>2.25</td> <td>2.73</td>	Hexachloroethane	2.25	2.73
Lead 22.1 26.8 Mercury 0.0118 0.0143 Methoxychlor 2.90 3.52 Methyl Ethyl Ketone 959540 1165156 Methyl Ethyl Ketone 959540 1165156 Methyl tert-butyl ether [MTBE] 10139 12311 Nickel 2928 3556 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A N-Nitrosodiethylamine 2.03 2.46 N-Nitroso-di- <i>n</i> -Butylamine 4.06 4.93 Pentachlorobenzene 0.343 0.416 Pentachlorobenzene 0.343 0.416 Pentachlorobenzene 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 0.000751 Pyridine 916 1112 Selenium N/A N/A 1,2,2,5-Tetrachlorobenzene 0.232 0.281 1,1,2,2-Tetrachloroethane 25.4 30.9 Tetrachloroethylene [Tetrachloroethylene] 270 328 Thallium 0.222 0.270	Hexachlorophene	2.80	3.40
Mercury 0.0118 0.0143 Methoxychlor 2.90 3.52 Methyl Ethyl Ketone 959540 1165156 Methyl Ethyl Ketone 959540 1165156 Methyl tert-butyl ether [MTBE] 10139 12311 Nickel 2928 3556 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A Nitrobenzene 1811 2199 N-Nitrosodiethylamine 2.03 2.46 N-Nitroso-di-n-Butylamine 4.06 4.93 Pentachlorobenzene 0.343 0.416 Pentachlorobenzene 0.343 0.416 Pentachlorophenol 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 0.000751 Pyridine 916 1112 Selenium N/A N/A 1,2,2,5-Tetrachloroethane 25.4 30.9 Tetrachloroethylene [Tetrachloroethylene] 270 328 Thallium 0.222 0.270 Toluene N/A N/A N/A	4,4'-Isopropylidenediphenol	15459	18771
Methoxychlor 2.90 3.52 Methyl Ethyl Ketone 959540 1165156 Methyl Ethyl Ketone 959540 1165156 Methyl tert-butyl ether [MTBE] 10139 12311 Nickel 2928 3556 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A Nitrobenzene 1811 2199 N-Nitrosodiethylamine 2.03 2.46 N-Nitroso-di-n-Butylamine 4.06 4.93 Pentachlorobenzene 0.343 0.416 Pentachlorophenol 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 0.000751 Pyridine 916 1112 Selenium N/A N/A 1,2,2,5-Tetrachlorobenzene 0.232 0.281 1,1,2,2-Tetrachloroethane 25.4 30.9 Tetrachloroethylene [Tetrachloroethylene] 270 328 Thallium 0.222 0.270 Toluene N/A N/A N/A N/A N/A	Lead	22.1	26.8
Methyl Ethyl Ketone 959540 1165156 Methyl tert-butyl ether [MTBE] 10139 12311 Nickel 2928 3556 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A Nitrobenzene 1811 2199 N-Nitrosodiethylamine 2.03 2.46 N-Nitroso-di-n-Butylamine 4.06 4.93 Pentachlorobenzene 0.343 0.416 Pentachlorobenzene 0.343 0.416 Pentachlorophenol 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 0.000751 Pyridine 916 1112 Selenium N/A N/A 1,2,2,5-Tetrachlorobenzene 0.232 0.281 1,1,2,2-Tetrachloroethane 25.4 30.9 Tetrachloroethylene [Tetrachloroethylene] 270 328 Thallium 0.222 0.270 Touene N/A N/A N/A N/A 0.0106	Mercury	0.0118	0.0143
Methyl tert-butyl ether [MTBE] 10139 12311 Nickel 2928 3556 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A Nitrobenzene 1811 2199 N-Nitrosodiethylamine 2.03 2.46 N-Nitroso-di-n-Butylamine 4.06 4.93 Pentachlorobenzene 0.343 0.416 Pentachlorobenzene 0.343 0.416 Pentachlorobenzene 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 0.000751 Pyridine 916 1112 Selenium N/A N/A 1,2,2,5-Tetrachlorobenzene 0.232 0.281 1,1,2,2-Tetrachloroethane 25.4 30.9 Tetrachloroethylene [Tetrachloroethylene] 270 328 Thallium 0.222 0.270 Toluene N/A N/A N/A N/A N/A	Methoxychlor	2.90	3.52
Nickel 2928 3556 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A Nitrobenzene 1811 2199 N-Nitrosodiethylamine 2.03 2.46 N-Nitroso-di- <i>n</i> -Butylamine 4.06 4.93 Pentachlorobenzene 0.343 0.416 Pentachlorobenzene 0.343 0.416 Pentachlorophenol 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 0.000751 Pyridine 916 1112 Selenium N/A N/A 1,2,2-Tetrachlorobenzene 0.232 0.281 1,1,2,2-Tetrachloroethane 25.4 30.9 Tetrachloroethylene [Tetrachloroethylene] 270 328 Thallium 0.222 0.270 Toluene N/A N/A N/A N/A N/A	Methyl Ethyl Ketone	959540	1165156
Nitrate-Nitrogen (as Total Nitrogen) N/A N/A Nitrobenzene 1811 2199 N-Nitrosodiethylamine 2.03 2.46 N-Nitroso-di-n-Butylamine 4.06 4.93 Pentachlorobenzene 0.343 0.416 Pentachlorobenzene 0.343 0.416 Pentachlorophenol 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 0.000751 Pyridine 916 1112 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 0.232 0.281 1,1,2,2-Tetrachloroethane 25.4 30.9 Tetrachloroethylene [Tetrachloroethylene] 270 328 Thallium 0.222 0.270 Touene N/A N/A	Methyl tert-butyl ether [MTBE]	10139	12311
Nitrobenzene 1811 2199 N-Nitrosodiethylamine 2.03 2.46 N-Nitroso-di-n-Butylamine 4.06 4.93 Pentachlorobenzene 0.343 0.416 Pentachlorophenol 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 0.000751 Pyridine 916 1112 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 0.232 0.281 1,1,2,2-Tetrachloroethane 25.4 30.9 Tetrachloroethylene [Tetrachloroethylene] 270 328 Thallium 0.222 0.270 Toluene N/A N/A	Nickel	2928	3556
N-Nitrosodiethylamine 2.03 2.46 N-Nitroso-di- <i>n</i> -Butylamine 4.06 4.93 Pentachlorobenzene 0.343 0.416 Pentachlorophenol 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 0.000751 Pyridine 916 1112 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 0.232 0.281 1,1,2,2-Tetrachloroethane 25.4 30.9 Tetrachloroethylene [Tetrachloroethylene] 270 328 Thallium 0.222 0.270 Toluene N/A N/A	Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
N-Nitroso-di-n-Butylamine 4.06 4.93 Pentachlorobenzene 0.343 0.416 Pentachlorophenol 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 0.000751 Pyridine 916 1112 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 0.232 0.281 1,1,2,2-Tetrachloroethane 25.4 30.9 Tetrachloroethylene [Tetrachloroethylene] 270 328 Thallium 0.222 0.270 Toluene N/A N/A N/A N/A N/A	Nitrobenzene	1811	2199
Pentachlorobenzene 0.343 0.416 Pentachlorophenol 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 0.000751 Pyridine 916 1112 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 0.232 0.281 1,1,2,2-Tetrachloroethane 25.4 30.9 Tetrachloroethylene [Tetrachloroethylene] 270 328 Thallium 0.222 0.270 Toluene N/A N/A N/A N/A 0.0106	N-Nitrosodiethylamine	2.03	2.46
Pentachlorophenol 0.280 0.340 Polychlorinated Biphenyls [PCBs] 0.000619 0.000751 Pyridine 916 1112 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 0.232 0.281 1,1,2,2-Tetrachloroethane 25.4 30.9 Tetrachloroethylene [Tetrachloroethylene] 270 328 Thallium 0.222 0.270 Toluene N/A N/A N/A N/A 0.0106	N-Nitroso-di-n-Butylamine	4.06	4.93
Polychlorinated Biphenyls [PCBs] 0.000619 0.000751 Pyridine 916 1112 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 0.232 0.281 1,1,2,2-Tetrachloroethane 25.4 30.9 Tetrachloroethylene [Tetrachloroethylene] 270 328 Thallium 0.222 0.270 Toluene N/A N/A N/A N/A 0.0106	Pentachlorobenzene	0.343	0.416
Pyridine 916 1112 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 0.232 0.281 1,1,2,2-Tetrachloroethane 25.4 30.9 Tetrachloroethylene [Tetrachloroethylene] 270 328 Thallium 0.222 0.270 Toluene N/A N/A N/A N/A N/A	Pentachlorophenol	0.280	0.340
Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 0.232 0.281 1,1,2,2-Tetrachloroethane 25.4 30.9 Tetrachloroethylene [Tetrachloroethylene] 270 328 Thallium 0.222 0.270 Toluene N/A N/A Toxaphene 0.0106 0.0129	Polychlorinated Biphenyls [PCBs]	0.000619	0.000751
1,2,4,5-Tetrachlorobenzene 0.232 0.281 1,1,2,2-Tetrachloroethane 25.4 30.9 Tetrachloroethylene [Tetrachloroethylene] 270 328 Thallium 0.222 0.270 Toluene N/A N/A Toxaphene 0.0106 0.0129	Pyridine	916	1112
1,1,2,2-Tetrachloroethane25.430.9Tetrachloroethylene [Tetrachloroethylene]270328Thallium0.2220.270TolueneN/AN/AToxaphene0.01060.0129	Selenium	N/A	N/A
Tetrachloroethylene [Tetrachloroethylene]270328Thallium0.2220.270TolueneN/AN/AToxaphene0.01060.0129	1,2,4,5-Tetrachlorobenzene	0.232	0.281
Thallium 0.222 0.270 Toluene N/A N/A Toxaphene 0.0106 0.0129	1,1,2,2-Tetrachloroethane	25.4	30.9
TolueneN/AN/AToxaphene0.01060.0129	Tetrachloroethylene [Tetrachloroethylene]	270	328
Toxaphene 0.0106 0.0129	Thallium	0.222	0.270
	Toluene	N/A	N/A
2,4,5-TP [Silvex] 356 433	Toxaphene	0.0106	0.0129
	2,4,5-TP [Silvex]	356	433

1,1,1-Trichloroethane	758688	921264
1,1,2-Trichloroethane	160	194
Trichloroethylene [Trichloroethene]	69.5	84.4
2,4,5-Trichlorophenol	1805	2192
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	15.9	19.3

TEXTOX MENU #7 - INTERMITTENT STREAM WITH PERENNIAL POOLS

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

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

PERMIT INFORMATION

Permittee Name:	City of Bryan
TPDES Permit No.:	WQ0015930001
Outfall No.:	001
Prepared by:	G Cooper
Date:	May 14, 2021

DISCHARGE INFORMATION

Intermittent Receiving Waterbody:	Brushy Creek	
Segment No.:	1209	
TSS (mg/L):	17	
pH (Standard Units):	7.1	
Hardness (mg/L as CaCO₃):	68	
Chloride (mg/L):	44	
Effluent Flow for Aquatic Life (MGD):	12	
Critical Low Flow [7Q2] (cfs):	0	
% Effluent for Chronic Aquatic Life:	100	
% Effluent for Acute Aquatic Life:	100	
Effluent Flow for Human Health (MGD):	12	
Harmonic Mean Flow (cfs):	0.1	
% Effluent for Human Health:	99.464	

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

Stream/River Metal	Intercept (b)	Slope (m)	Partition Coefficient (Kp)	Dissolved Fraction (Cd/Ct)	Source	Water Effect Ratio (WER)	Source
Aluminum	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Arsenic	5.68	-0.73	60502.36	0.493		1.00	Assumed
Cadmium	6.60	-1.13	162028.99	0.266		1.00	Assumed
Chromium (total)	6.52	-0.93	237510.33	0.199		1.00	Assumed
Chromium (trivalent)	6.52	-0.93	237510.33	0.199		1.00	Assumed
Chromium (hexavalent)	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Copper	6.02	-0.74	128667.18	0.314		1.00	Assumed
Lead	6.45	-0.80	292173.53	0.168		1.00	Assumed
Mercury	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Nickel	5.69	-0.57	97419.10	0.376		1.00	Assumed
Selenium	N/A	N/A	N/A	1.00	Assumed	1.00	Assumed
Silver	6.38	-1.03	129609.73	0.312		1.00	Assumed
Zinc	6.10	-0.70	173254.99	0.253		1.00	Assumed

AQUATIC LIFE

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

Parameter	FW Acute Criterion (μg/L)	FW Chronic Criterion (μg/L)	WLAa (µg/L)	WLAc (µg/L)	LTAa (µg/L)	LTAc (µg/L)	Daily Avg. (μg/L)	Daily Max. (µg/L)
Aldrin	3.0	N/A	3.00	N/A	1.72	N/A	2.52	5.34
Aluminum	991	N/A	991	N/A	568	N/A	834	1765
Arsenic	340	150	690	304	395	234	344	728
Cadmium	5.9	0.188	22.1	0.706	12.7	0.544	0.799	1.69
Carbaryl	2.0	N/A	2.00	N/A	1.15	N/A	1.68	3.56
Chlordane	2.4	0.004	2.40	0.00400	1.38	0.00308	0.00452	0.00957
Chlorpyrifos	0.083	0.041	0.0830	0.0410	0.0476	0.0316	0.0464	0.0981
Chromium (+3)	415	54	2093	272	1199	210	308	651
Chromium (+6)	15.7	10.6	15.7	10.6	9.00	8.16	11.9	25.3
Copper	9.9	6.8	31.5	21.7	18.0	16.7	24.5	51.9
Cyanide (free)	45.8	10.7	45.8	10.7	26.2	8.24	12.1	25.6
4,4'-DDT	1.1	0.001	1.10	0.00100	0.630	0.000770	0.00113	0.00239
Demeton	N/A	0.1	N/A	0.100	N/A	0.0770	0.113	0.239
Diazinon	0.17	0.17	0.170	0.170	0.0974	0.131	0.143	0.302
Dicofol	59.3	19.8	59.3	19.8	34.0	15.2	22.4	47.4
Dieldrin	0.24	0.002	0.240	0.00200	0.138	0.00154	0.00226	0.00478
Diuron	210	70	210	70.0	120	53.9	79.2	167
Endosulfan I (alpha)	0.22	0.056	0.220	0.0560	0.126	0.0431	0.0633	0.134
Endosulfan II (beta)	0.22	0.056	0.220	0.0560	0.126	0.0431	0.0633	0.134
Endosulfan sulfate	0.22	0.056	0.220	0.0560	0.126	0.0431	0.0633	0.134
Endrin	0.086	0.002	0.0860	0.00200	0.0493	0.00154	0.00226	0.00478
Guthion	N/A	0.01	N/A	0.0100	N/A	0.00770	0.0113	0.0239
Heptachlor	0.52	0.004	0.520	0.00400	0.298	0.00308	0.00452	0.00957
Hexachlorocyclohexane (Lindane)	1.126	0.08	1.13	0.0800	0.645	0.0616	0.0905	0.191
Lead	42	1.65	253	9.84	145	7.58	11.1	23.5
Malathion	N/A	0.01	N/A	0.0100	N/A	0.00770	0.0113	0.0239
Mercury	2.4	1.3	2.40	1.30	1.38	1.00	1.47	3.11
Methoxychlor	N/A	0.03	N/A	0.0300	N/A	0.0231	0.0339	0.0718
Mirex	N/A	0.001	N/A	0.00100	N/A	0.000770	0.00113	0.00239
Nickel	338	37.5	897	99.7	514	76.8	112	238
Nonylphenol	28	6.6	28.0	6.60	16.0	5.08	7.47	15.8
Parathion (ethyl)	0.065	0.013	0.0650	0.0130	0.0372	0.0100	0.0147	0.0311
Pentachlorophenol	9.6	7.4	9.65	7.40	5.53	5.70	8.12	17.1
Phenanthrene	30	30	30.0	30.0	17.2	23.1	25.2	53.4
Polychlorinated Biphenyls (PCBs)	2.0	0.014	2.00	0.0140	1.15	0.0108	0.0158	0.0335
Selenium	20	5	20.0	5.00	11.5	3.85	5.65	11.9
Silver	0.8	N/A	9.98	N/A	5.72	N/A	8.41	17.7
Toxaphene	0.78	0.0002	0.780	0.000200	0.447	0.000154	0.000226	0.000478
Tributyltin (TBT)	0.13	0.024	0.130	0.0240	0.0745	0.0185	0.0271	0.0574
2,4,5 Trichlorophenol	136	64	136	64.0	77.9	49.3	72.4	153
Zinc	85	85	333	336	191	259	280	594

HUMAN HEALTH (APPLIES FOR INCIDENTAL FRESHWATER FISH TISSUE)

CALCULATE DAILY AVERAGE AND DAILY MAXIMUM EFFLUENT LIMITATIONS:

	Incidental				
	Fish				
	Criterion	WLAh	LTAh	Daily Avg.	Daily Max.
Parameter	(μg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)
Acrylonitrile	1150	1156	1075	1580	3344

Aldrin	1.147E-04	0.000115	0.000107	0.000157	0.000333
Anthracene	13170	13241	12314	18101	38296
Antimony	10710	10768	10014	14720	31143
Arsenic	N/A	N/A	N/A	N/A	N/A
Barium	N/A	N/A	N/A	N/A	N/A
Benzene	5810	5841	5432	7985	16894
Benzidine	1.07	1.08	1.00	1.47	3.11
Benzo(a)anthracene	0.25	0.251	0.234	0.343	0.726
Benzo(<i>a</i>)pyrene	0.025	0.0251	0.0234	0.0343	0.0726
Bis(chloromethyl)ether	2.745	2.76	2.57	3.77	7.98
Bis(2-chloroethyl)ether	428.3	431	400	588	1245
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	75.5	75.9	70.6	103	219
Bromodichloromethane [Dichlorobromomethane]	2750	2765	2571	3779	7996
Bromoform [Tribromomethane]	10600	10657	9911	14569	30823
Cadmium	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	460	462	430	632	1337
Chlordane	0.025	0.0251	0.0234	0.0343	0.0726
Chlorobenzene	27370	27517	25591	37619	79588
Chlorodibromomethane [Dibromochloromethane]	1830	1840	1711	2515	5321
Chloroform [Trichloromethane]	76970	77385	71968	105792	223819
Chromium (hexavalent)	5020	5047	4694	6899	14597
Chrysene	25.2	25.3	23.6	34.6	73.2
Cresols [Methylphenols]	93010	93511	86965	127838	270461
Cyanide (free)	N/A	N/A	N/A	N/A	N/A
4,4'-DDD	0.02	0.0201	0.0187	0.0274	0.0581
4,4'-DDE	0.0013	0.00131	0.00122	0.00178	0.00378
4,4'-DDT	0.004	0.00402	0.00374	0.00549	0.0116
2,4'-D	N/A	N/A	N/A	N/A	N/A
Danitol [Fenpropathrin]	4730	4755	4423	6501	13754
1,2-Dibromoethane [Ethylene Dibromide]	42.4	42.6	39.6	58.2	123
<i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene]	5950	5982	5563	8178	17301
o-Dichlorobenzene [1,2-Dichlorobenzene]	32990	33168	30846	45343	95930
<i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene]	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	22.4	22.5	20.9	30.7	65.1
1,2-Dichloroethane	3640	3660	3403	5003	10584
1,1-Dichloroethylene [1,1-Dichloroethene]	551140	554108	515321	757521	1602647
Dichloromethane [Methylene Chloride]	133330	134048	124665	183257	387707
1,2-Dichloropropane	2590	2604	2422	3559	7531
1,3-Dichloropropene [1,3-Dichloropropylene]	1190	1196	1113	1635	3460
Dicofol [Kelthane]	3	3.02	2.81	4.12	8.72
Dieldrin	2.0E-04	0.000201	0.000187	0.000274	0.000581
2,4-Dimethylphenol	84360	84814	78877	115949	245308
Di- <i>n</i> -Butyl Phthalate	924	929	864	1270	2686
Dioxins/Furans [TCDD Equivalents]	7.97E-07	8.01E-07	7.45E-07	0.0000011	0.0000023
Endrin	0.2	0.201	0.187	0.274	0.581
Epichlorohydrin	20130	20238	18822	27667	58535
Ethylbenzene	18670	18771	17457	25661	54290
Ethylene Glycol	1.68E+08	168904848	157081509	230909817	488523491
Fluoride	N/A	N/A	N/A	N/A	N/A
Heptachlor	0.001	0.00101	0.000935	0.00137	0.00290
Heptachlor Epoxide	0.0029	0.00292	0.00271	0.00398	0.00843
Hexachlorobenzene	0.0068	0.00684	0.00636	0.00934	0.0197
Hexachlorobutadiene	2.2	2.21	2.06	3.02	6.39
Hexachlorocyclohexane (<i>alpha</i>)	0.084	0.0845	0.0785	0.115	0.244
Hexachlorocyclohexane (<i>beta</i>)	2.6	2.61	2.43	3.57	7.56
	2.0	2.01	2.73	5.57	7.50

Hexachlorocyclohexane (gamma) [Lindane]	3.41	3.43	3.19	4.68	9.91
Hexachlorocyclopentadiene	116	117	108	159	337
Hexachloroethane	23.3	23.4	21.8	32.0	67.7
Hexachlorophene	29	29.2	27.1	39.8	84.3
4,4'-Isopropylidenediphenol [Bisphenol A]	159820	160681	149433	219666	464737
Lead	38.3	230	214	314	664
Mercury	0.122	0.123	0.114	0.167	0.354
Methoxychlor	30	30.2	28.1	41.2	87.2
Methyl Ethyl Ketone	9.92E+06	9973429	9275289	13634674	28846149
Methyl tert-butyl ether [MTBE]	104820	105385	98008	144071	304803
Nickel	11400	30443	28312	41618	88050
Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	18730	18831	17513	25743	54464
N-Nitrosodiethylamine	21	21.1	19.6	28.8	61.0
N-Nitroso-di-n-Butylamine	42	42.2	39.3	57.7	122
Pentachlorobenzene	3.55	3.57	3.32	4.87	10.3
Pentachlorophenol	2.9	2.92	2.71	3.98	8.43
Polychlorinated Biphenyls [PCBs]	6.40E-03	0.00643	0.00598	0.00879	0.0186
Pyridine	9470	9521	8855	13016	27537
Selenium	N/A	N/A	N/A	N/A	N/A
1,2,4,5-Tetrachlorobenzene	2.4	2.41	2.24	3.29	6.97
1,1,2,2-Tetrachloroethane	263.5	265	246	362	766
Tetrachloroethylene [Tetrachloroethylene]	2800	2815	2618	3848	8142
Thallium	2.3	2.31	2.15	3.16	6.68
Toluene	N/A	N/A	N/A	N/A	N/A
Toxaphene	0.11	0.111	0.103	0.151	0.319
2,4,5-TP [Silvex]	3690	3710	3450	5071	10730
1,1,1-Trichloroethane	7843540	7885785	7333780	10780657	22808056
1,1,2-Trichloroethane	1660	1669	1552	2281	4827
Trichloroethylene [Trichloroethene]	719	723	672	988	2090
2,4,5-Trichlorophenol	18670	18771	17457	25661	54290
TTHM [Sum of Total Trihalomethanes]	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	165	166	154	226	479

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

Aquatic Life	70% of Daily Avg.	85% of Daily Avg.
Parameter	(μg/L)	(µg/L)
Aldrin	1.76	2.14
Aluminum	584	709
Arsenic	241	292
Cadmium	0.559	0.679
Carbaryl	1.17	1.43
Chlordane	0.00316	0.00384
Chlorpyrifos	0.0324	0.0394
Chromium (+3)	215	261
Chromium (+6)	8.39	10.1
Copper	17.1	20.8
Cyanide (free)	8.47	10.2
4,4'-DDT	0.000792	0.000962
Demeton	0.0792	0.0962
Diazinon	0.100	0.121
Dicofol	15.6	19.0
Dieldrin	0.00158	0.00192

Diuron	55.4	67.3
Endosulfan (alpha)	0.0443	0.0538
Endosulfan (beta)	0.0443	0.0538
Endosulfan sulfate	0.0443	0.0538
Endrin	0.00158	0.00192
Guthion	0.00792	0.00962
Heptachlor	0.00316	0.00384
Hexachlorocyclohexane (Lindane)	0.0633	0.0769
Lead	7.79	9.47
Malathion	0.00792	0.00962
Mercury	1.03	1.25
Methoxychlor	0.0237	0.0288
Mirex	0.000792	0.000962
Nickel	78.9	95.9
Nonylphenol	5.22	6.34
Parathion (ethyl)	0.0103	0.0125
Pentachlorophenol	5.68	6.90
Phenanthrene	17.6	21.4
Polychlorinated Biphenyls (PCBs)	0.0110	0.0134
Selenium	3.96	4.81
Silver	5.88	7.14
Toxaphene	0.000158	0.000192
Tributyltin (TBT)	0.0190	0.0230
2,4,5 Trichlorophenol	50.7	61.5
Zinc	196	238

Human Health	70% of Daily Avg.	85% of Daily Avg.
Parameter	(μg/L)	(μg/L)
Acrylonitrile	1106	1343
Aldrin	0.000110	0.000134
Anthracene	12671	15386
Antimony	10304	12512
Arsenic	N/A	N/A
Barium	N/A	N/A
Benzene	5589	6787
Benzidine	1.02	1.25
Benzo(a)anthracene	0.240	0.292
Benzo(a)pyrene	0.0240	0.0292
Bis(chloromethyl)ether	2.64	3.20
Bis(2-chloroethyl)ether	412	500
Bis(2-ethylhexyl) phthalate [Di(2-ethylhexyl) phthalate]	72.6	88.2
Bromodichloromethane [Dichlorobromomethane]	2645	3212
Bromoform [Tribromomethane]	10198	12383
Cadmium	N/A	N/A
Carbon Tetrachloride	442	537
Chlordane	0.0240	0.0292
Chlorobenzene	26333	31976
Chlorodibromomethane [Dibromochloromethane]	1760	2137
Chloroform [Trichloromethane]	74054	89923
Chromium (hexavalent)	4829	5864
Chrysene	24.2	29.4
Cresols [Methylphenols]	89487	108662
Cyanide (free)	N/A	N/A
4,4'-DDD	0.0192	0.0233

.4.4-DDT 0.00384 0.00457 2.4-D N/A N/A Danitol [Fenropathrin] 4550 5526 1.2-Dibromoethane [Ethylene Dibromide] 40.7 49.5 <i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene] 5724 6951 <i>o</i> -Dichlorobenzene [1,4-Dichlorobenzene] 31740 38542 <i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene] N/A N/A 3,3-Dichlorobenzidine 21.5 26.1 1,2-Dichloroethylene [1,1-Dichloroethene] 53026 643833 Dichloromethylene [1,3-Dichloropropylene] 1144 13002 1,3-Dichloropropane 2491 3025 1,3-Dichloropropane [1,3-Dichloropropylene] 1144 1390 Dicofol [Keithane] 2.88 3.50 Dickroft [Lathane] 0.00023 0.00023 2,4-Dimethylphenol 81164 98557 Dickrifturans [TCDD Equivalents] 7.66E-07 9.31E-07 Endrin 0.192 0.233 Epichlorobydrin 19367 23517 Ethylene Glycol 161635877 19273345 Fl	4,4'-DDE	0.00125	0.00151
2,4-D N/A N/A Danitol [Fenpropathrin] 4550 5526 1,2-Dibromoethane [Ethylene Dibromide] 40.7 49.5 <i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene] 31740 38542 <i>p</i> -Dichlorobenzene [1,4-Dichlorobenzene] N/A N/A 3,3-Dichlorobenzene [1,4-Dichlorobenzene] N/A N/A 1,1-Dichloroethylene [1,1-Dichloroethene] 530265 643893 Dichloropropane 2491 3025 1,2-Dichloropropane 2491 3025 1,2-Dichloropropane 2491 3025 1,2-Dichloropropane 2491 3025 2,4-Dimethylphenol 81164 98557 Di-n-Butyl Phthalate 889 1079 Dioxins/Furans [TCDD Equivalents] 7.66E-07 9.31E-07 Endrin 0.192 0.233 2,4-Dimethylphenol 16163672 196273345 Eluoride N/A N/A Hexachlorocyclobexaue (gamma) 0.000962 0.00116 Heptachlor 0.000962 0.00138 Hexachlo	-		
Danitol [Fenpropathrin] 4550 5526 1,2-Dibromoethane [Ethylene Dibromide] 40.7 49.55 <i>m</i> -Dichlorobenzene [1,3-Dichlorobenzene] 51724 6951 <i>o</i> -Dichlorobenzene [1,4-Dichlorobenzene] N/A N/A 3,3-Dichlorobenzidine 21.5 26.11 1,2-Dichloroethylene [1,1-Dichloroethene] 53026 643893 Dichloropentylene [1,3-Dichloropylene] 1144 1390 Dicofol [Kethane] 2.88 3.50 Dicofol [Kethane] 889 1079 Dicoin/propane 2414 98557 Di-n-Butyl Phthalate 889 1079 Dicoin/Furans [TCDD Equivalents] 7.66E-07 9.31E-07 Endrin 0.192 0.00023 2.4-Dirnethylphenol 161636872 196273345 Fluorin/ 0.9079 0.00316 196273345 196273345 Fluorin/ 0.00279 0.00328 0.0079 Lethylence Glycol 11636872 196273345 Fluorin/ 0.00279 0.00338 Hexachlorocyclohexane (<i>aptna</i>) <	-	N/A	N/A
m-Dichlorobenzene [1,3-Dichlorobenzene] 5724 6951 o-Dichlorobenzene [1,2-Dichlorobenzene] N/A 38542 p-Dichlorobenzene [1,4-Dichlorobenzene] N/A N/A 3,3-'Dichlorobenzidine 1.1.5 26.1 1,2-Dichloroethylene [1,1-Dichloroethene] 530265 643893 Dichloromethane [Methylene Chloride] 128280 155768 1,2-Dichloropropane 2491 30252 1,3-Dichloropropane [1,3-Dichloropropylene] 1144 1390 Dicofol [Kelthane] 2.88 3.50 Dieldrin 0.000192 0.000233 2,4-Dimethylphenol 81164 9857 Di-n-Butyl Phthalate 889 1079 Dioxins/Furans [TCDD Equivalents] 7.66E-07 9.31E-07 Endrin 0.192 0.0333 Ethylence Glycol 161638672 196273345 Fluoride N/A N/A Heptachlor 0.00079 0.00338 Hexachlorocyclohexane (apha) 0.0808 0.0994 Hexachlorocyclohexane (aphan) 0.8064 0.815<			
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Hexachlorocyclohexane (gamma) [Lindane] 3.28 3.98 Hexachlorocyclopentadiene 111 135 Hexachlorocyclopentadiene 22.4 27.2 Hexachlorophane 22.4 27.2 Hexachlorophene 27.9 33.8 4,4'-Isopropylidenediphenol [Bisphenol A] 153766 186716 Lead 219 266 Mercury 0.117 0.142 Methoxychlor 28.8 35.0 Methyl Ethyl Ketone 9544272 11589473 Methyl tert-butyl ether [MTBE] 100849 122460 Nickel 29132 35375 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A Nitrobenzene 18020 21882 N-Nitrosodiethylamine 20.2 24.5 N-Nitrosodiethylamine 40.4 49.0 Pentachlorobenzene 3.41 4.14 Pentachlorobenzene 3.41 4.14 Pentachlorobenzene 2.79 3.38 Polychlorinated Biphenyls [PCBs] 0.00615 0.00747			
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Hexachloroethane 22.4 27.2 Hexachlorophene 27.9 33.8 4,4'-Isopropylidenediphenol [Bisphenol A] 153766 186716 Lead 219 266 Mercury 0.117 0.142 Methoxychlor 28.8 35.0 Methyl Ethyl Ketone 9544272 11589473 Methyl Ethyl Ketone 9544272 11589473 Methyl tert-butyl ether [MTBE] 100849 122460 Nickel 29132 35375 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A Nitrobenzene 18020 21882 N-Nitrosodiethylamine 20.2 24.5 N-Nitroso-di-n-Butylamine 40.4 49.0 Pentachlorobenzene 3.41 4.14 Pentachlorobendenol 2.79 3.38 Polychlorinated Biphenyls [PCBs] 0.00615 0.00747 Pyridine 9111 11063 5 Selenium N/A N/A 1,2,4,5-Tetrachloroethane 2.30 2.80 1			
4,4'-Isopropylidenediphenol [Bisphenol A] 153766 186716 Lead 219 266 Mercury 0.117 0.142 Methoxychlor 28.8 35.0 Methyl Ethyl Ketone 9544272 11589473 Methyl Ethyl Ketone 9544272 11589473 Methyl Ethyl Ketone 9544272 11589473 Methyl tert-butyl ether [MTBE] 100849 122460 Nickel 29132 35375 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A N-Nitrosodiethylamine 20.2 24.5 N-Nitroso-di-n-Butylamine 40.4 49.0 Pentachlorobenzene 3.41 4.14 Pentachlorobenzene 3.41 4.14 Pentachlorobenzene 2.79 3.38 Polychlorinated Biphenyls [PCBs] 0.00615 0.00747 Pyridine 9111 11063 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 2.30 2.80 1,1,2,2-Tetrachloroethane 253 307 Tetrachloroethylene [Tetrachloroethylene] 2693 3271	/ /	22.4	27.2
4,4'-Isopropylidenediphenol [Bisphenol A] 153766 186716 Lead 219 266 Mercury 0.117 0.142 Methoxychlor 28.8 35.0 Methyl Ethyl Ketone 9544272 11589473 Methyl Ethyl Ketone 9544272 11589473 Methyl Ethyl Ketone 9544272 11589473 Methyl tert-butyl ether [MTBE] 100849 122460 Nickel 29132 35375 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A N-Nitrosodiethylamine 20.2 24.5 N-Nitroso-di-n-Butylamine 40.4 49.0 Pentachlorobenzene 3.41 4.14 Pentachlorobenzene 3.41 4.14 Pentachlorobenzene 2.79 3.38 Polychlorinated Biphenyls [PCBs] 0.00615 0.00747 Pyridine 9111 11063 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 2.30 2.80 1,1,2,2-Tetrachloroethane 253 307 Tetrachloroethylene [Tetrachloroethylene] 2693 3271	Hexachlorophene	27.9	33.8
Mercury 0.117 0.142 Methoxychlor 28.8 35.0 Methyl Ethyl Ketone 9544272 11589473 Methyl Ethyl Ketone 9544272 11589473 Methyl Ethyl Ketone 9544272 11589473 Methyl tert-butyl ether [MTBE] 100849 122460 Nickel 29132 35375 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A Nitrobenzene 18020 21882 N-Nitrosodiethylamine 20.2 24.5 N-Nitroso-di-n-Butylamine 40.4 49.0 Pentachlorobenzene 3.41 4.14 Pentachlorobenzene 3.41 4.14 Pentachlorophenol 2.79 3.38 Polychlorinated Biphenyls [PCBs] 0.00615 0.00747 Pyridine 9111 11063 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 2.30 2.80 1,1,2,2-Tetrachloroethane 253 307 Tetrachloroethylene [Tetrachloroethylene] 2693 3271	•		186716
Mercury 0.117 0.142 Methoxychlor 28.8 35.0 Methyl Ethyl Ketone 9544272 11589473 Methyl Ethyl Ketone 9544272 11589473 Methyl tert-butyl ether [MTBE] 100849 122460 Nickel 29132 35375 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A Nitrobenzene 18020 21882 N-Nitrosodiethylamine 20.2 24.5 N-Nitroso-di-n-Butylamine 40.4 49.0 Pentachlorobenzene 3.41 4.14 Pentachlorobenzene 3.41 4.14 Pentachlorophenol 2.79 3.38 Polychlorinated Biphenyls [PCBs] 0.00615 0.00747 Pyridine 9111 11063 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 2.30 2.80 1,1,2,2-Tetrachloroethane 253 307 Tetrachloroethylene [Tetrachloroethylene] 2693 3271 Thallium 2.21 2.68 321	Lead	219	266
Methoxychlor 28.8 35.0 Methyl Ethyl Ketone 9544272 11589473 Methyl Ethyl Ketone 9544272 11589473 Methyl tert-butyl ether [MTBE] 100849 122460 Nickel 29132 35375 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A Nitrobenzene 18020 21882 N-Nitrosodiethylamine 20.2 24.5 N-Nitroso-di-n-Butylamine 40.4 49.0 Pentachlorobenzene 3.41 4.14 Pentachlorobenzene 3.41 4.14 Pentachlorophenol 2.79 3.38 Polychlorinated Biphenyls [PCBs] 0.00615 0.00747 Pyridine 9111 11063 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 2.30 2.80 1,1,2,2-Tetrachloroethane 253 307 Tetrachloroethylene [Tetrachloroethylene] 2693 3271 Thallium 2.21 2.68	Mercury		0.142
Methyl tert-butyl ether [MTBE] 100849 122460 Nickel 29132 35375 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A Nitrobenzene 18020 21882 N-Nitrosodiethylamine 20.2 24.5 N-Nitroso-di-n-Butylamine 40.4 49.0 Pentachlorobenzene 3.41 4.14 Pentachlorophenol 2.79 3.38 Polychlorinated Biphenyls [PCBs] 0.00615 0.00747 Pyridine 9111 11063 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 2.30 2.80 1,1,2,2-Tetrachloroethane 253 307 Tetrachloroethylene [Tetrachloroethylene] 2693 32711 Thallium 2.21 2.68 2.68		28.8	35.0
Methyl tert-butyl ether [MTBE] 100849 122460 Nickel 29132 35375 Nitrate-Nitrogen (as Total Nitrogen) N/A N/A Nitrobenzene 18020 21882 N-Nitrosodiethylamine 20.2 24.5 N-Nitroso-di-n-Butylamine 40.4 49.0 Pentachlorobenzene 3.41 4.14 Pentachlorophenol 2.79 3.38 Polychlorinated Biphenyls [PCBs] 0.00615 0.00747 Pyridine 9111 11063 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 2.30 2.80 1,1,2,2-Tetrachloroethane 253 307 Tetrachloroethylene [Tetrachloroethylene] 2693 32711 Thallium 2.21 2.68 2.68	Methyl Ethyl Ketone	9544272	11589473
Nitrate-Nitrogen (as Total Nitrogen) N/A N/A Nitrobenzene 18020 21882 N-Nitrosodiethylamine 20.2 24.5 N-Nitroso-di-n-Butylamine 40.4 49.0 Pentachlorobenzene 3.41 4.14 Pentachlorophenol 2.79 3.38 Polychlorinated Biphenyls [PCBs] 0.00615 0.00747 Pyridine 9111 11063 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 2.30 2.80 1,1,2,2-Tetrachloroethane 253 307 Tetrachloroethylene [Tetrachloroethylene] 2693 3271 Thallium 2.21 2.68		100849	122460
Nitrobenzene 18020 21882 N-Nitrosodiethylamine 20.2 24.5 N-Nitroso-di-n-Butylamine 40.4 49.0 Pentachlorobenzene 3.41 4.14 Pentachlorophenol 2.79 3.38 Polychlorinated Biphenyls [PCBs] 0.00615 0.00747 Pyridine 9111 11063 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 2.30 2.80 1,1,2,2-Tetrachloroethane 253 307 Tetrachloroethylene [Tetrachloroethylene] 2693 3271 Thallium 2.21 2.68	Nickel	29132	35375
N-Nitrosodiethylamine 20.2 24.5 N-Nitroso-di-n-Butylamine 40.4 49.0 Pentachlorobenzene 3.41 4.14 Pentachlorophenol 2.79 3.38 Polychlorinated Biphenyls [PCBs] 0.00615 0.00747 Pyridine 9111 11063 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 2.30 2.80 1,1,2,2-Tetrachloroethane 253 307 Tetrachloroethylene [Tetrachloroethylene] 2693 3271 Thallium 2.21 2.68	Nitrate-Nitrogen (as Total Nitrogen)	N/A	N/A
N-Nitroso-di-n-Butylamine 40.4 49.0 Pentachlorobenzene 3.41 4.14 Pentachlorophenol 2.79 3.38 Polychlorinated Biphenyls [PCBs] 0.00615 0.00747 Pyridine 9111 11063 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 2.30 2.80 1,1,2,2-Tetrachloroethane 253 307 Tetrachloroethylene [Tetrachloroethylene] 2693 3271 Thallium 2.21 2.68	Nitrobenzene	18020	21882
Pentachlorobenzene 3.41 4.14 Pentachlorophenol 2.79 3.38 Polychlorinated Biphenyls [PCBs] 0.00615 0.00747 Pyridine 9111 11063 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 2.30 2.80 1,1,2,2-Tetrachloroethane 253 307 Tetrachloroethylene [Tetrachloroethylene] 2693 3271 Thallium 2.21 2.68	N-Nitrosodiethylamine	20.2	24.5
Pentachlorophenol 2.79 3.38 Polychlorinated Biphenyls [PCBs] 0.00615 0.00747 Pyridine 9111 11063 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 2.30 2.80 1,1,2,2-Tetrachloroethane 253 307 Tetrachloroethylene [Tetrachloroethylene] 2693 3271 Thallium 2.21 2.68	N-Nitroso-di-n-Butylamine	40.4	49.0
Polychlorinated Biphenyls [PCBs] 0.00615 0.00747 Pyridine 9111 11063 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 2.30 2.80 1,1,2,2-Tetrachloroethane 253 307 Tetrachloroethylene [Tetrachloroethylene] 2693 3271 Thallium 2.21 2.68	Pentachlorobenzene	3.41	4.14
Pyridine 9111 11063 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 2.30 2.80 1,1,2,2-Tetrachloroethane 253 307 Tetrachloroethylene [Tetrachloroethylene] 2693 3271 Thallium 2.2.1 2.68	Pentachlorophenol	2.79	3.38
Pyridine 9111 11063 Selenium N/A N/A 1,2,4,5-Tetrachlorobenzene 2.30 2.80 1,1,2,2-Tetrachloroethane 253 307 Tetrachloroethylene [Tetrachloroethylene] 2693 3271 Thallium 2.2.1 2.68	Polychlorinated Biphenyls [PCBs]	0.00615	0.00747
1,2,4,5-Tetrachlorobenzene 2.30 2.80 1,1,2,2-Tetrachloroethane 253 307 Tetrachloroethylene [Tetrachloroethylene] 2693 3271 Thallium 2.21 2.68			
1,2,4,5-Tetrachlorobenzene 2.30 2.80 1,1,2,2-Tetrachloroethane 253 307 Tetrachloroethylene [Tetrachloroethylene] 2693 3271 Thallium 2.21 2.68	<i>i</i>	N/A	
1,1,2,2-Tetrachloroethane 253 307 Tetrachloroethylene [Tetrachloroethylene] 2693 3271 Thallium 2.21 2.68	1,2,4,5-Tetrachlorobenzene	2.30	2.80
Tetrachloroethylene [Tetrachloroethylene]26933271Thallium2.212.68			307
Thallium 2.21 2.68			
	Toluene	N/A	N/A

Toxaphene	0.105	0.128
2,4,5-TP [Silvex]	3550	4311
1,1,1-Trichloroethane	7546459	9163558
1,1,2-Trichloroethane	1597	1939
Trichloroethylene [Trichloroethene]	691	840
2,4,5-Trichlorophenol	17962	21812
TTHM [Sum of Total Trihalomethanes]	N/A	N/A
Vinyl Chloride	158	192



Compliance History Report

Compliance History Report for CN600373310, RN101881910, Rating Year 2020 which includes Compliance History (CH) components from September 1, 2015, through August 31, 2020.

	stomer, Respondent, Owner/Operator:	CN600373310, City of Bryan	Classification: SATISFACTORY	Rating: 1.48				
Re	gulated Entity:	RN101881910, ANDY SUSTAITA	Classification: UNCLASSIFIED	Rating:				
Со	mplexity Points:	0 Repeat Violator: NO						
СН	Group:	14 - Other						
Loc	cation:	300 S TEXAS AVE BRYAN, TX	77803-3937, BRAZOS COUNTY					
тс	EQ Region:	Q Region: REGION 09 - WACO						
	Number(s): ASTEWATER PERMIT WQ0	015930001	WASTEWATER EPA ID TX0140635					
Со	mpliance History Peri	od: September 01, 2015 to Au	gust 31, 2020 Rating Year: 2020 Rati	ng Date: 09/01/2020				
Da	te Compliance History	Report Prepared: May 1	0, 2021					
Ag	ency Decision Requiri		Permit - Issuance, renewal, amendment, modificati revocation of a permit.	on, denial, suspension, or				
Со	mponent Period Selec	ted: September 25, 2015 to	May 10, 2021					
тс	EQ Staff Member to C	ontact for Additional Info	mation Regarding This Compliance Histo	ry.				
	Name: WH		Phone: (512) 239-3581	-				
<u>Co</u>	mponents (Multime	change in ownership/operator of edia) for the Site Are Lis udgments, and consent de						
	N/A							
В.	Criminal convictions N/A	:						
C.	Chronic excessive er N/A	nissions events:						
D.	The approval dates on N/A	approval dates of investigations (CCEDS Inv. Track. No.):						
E.	 Written notices of violations (NOV) (CCEDS Inv. Track. No.): A notice of violation represents a written allegation of a violation of a specific regulatory requirement from the commission to a regulated entity. A notice of violation is not a final enforcement action, nor proof that a violation has actually occurred. N/A 							
F.	Environmental audit	s:						

- N/A
- G. Type of environmental management systems (EMSs):

N/A

- H. Voluntary on-site compliance assessment dates: \$N/A\$
- I. Participation in a voluntary pollution reduction program: \$N/A\$
- J. Early compliance: N/A

Sites Outside of Texas:

N/A