TECHNICAL REPORT 1.0
INDUSTRIAL

This application form is for an industrial wastewater discharge authorization only. Your facility may need additional authorizations from the TCEQ Waste Permitting Division or the TCEQ Air Permitting Division.

The following information is required for **all TPDES** and **TLAP** renewal, new, and amendment applications.

1. FACILITY/SITE INFORMATION (Instructions, Pages 38-39)

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

b. SIC Code(s): _____ , _____ , _____ , _____

NAICS Code(s): _____ , _____ , _____ , _____

c. Describe the wastewater-generating processes.

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

Materials List

Raw Materials	Intermediate Products	Final Products

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

- Production areas, maintenance areas, materials-handling areas, and waste-disposal areas
- The location of each unit of the wastewater treatment plant including the location of wastewater collection sumps, impoundments, and outfalls (also include locations of sampling points if significantly different from outfall locations)

Attachment: _____

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

☐ Yes ☐ No

If **yes**, provide background discussion below.

g. Is the treatment facility/disposal site located above the 100-year frequency flood level?

☐ Yes ☐ No

List source(s) used to determine 100-year frequency flood plain:

If **no**, provide the elevation of the 100-year frequency flood plain and describe what protective measures are in use or planned to be used to prevent flooding of the treatment facility/disposal area.

h. For new or amendment permit applications, will any construction operations result in a discharge of fill material into a water in the state?

☐ Yes ☐ No

If **no**, proceed to Item 2.

i. If **yes** to the above question, has the applicant applied for a U.S. Army Corps of Engineers 404 Dredge and Fill permit?

☐ Yes ☐ No

If **yes**, provide the permit number: _____

If **no**, provide the approximate date you anticipate submitting your application to the Corps:

_____

2. TREATMENT SYSTEM (Instructions, Page 39)

a. List any physical, chemical, or biological treatment process that you use for the treatment of wastewater at your facility. Include a description of each treatment process, starting with initial treatment and finishing with the outfall/point of disposal.

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

Attachment: _____

3. IMPOUNDMENTS (Instructions, Pages 39-42)

Do you use or plan to use any wastewater lagoons, ponds, or impoundments?

☐ Yes ☐ No

If **yes**, complete **Item 3.a** for **existing** impoundments and **Items 3.a-3.h** for **new or proposed** impoundments. If **no**, proceed to Item 4.

Please note: Surface impoundments may also require additional authorizations from the TCEQ Waste Permit Division.

a. Provide the following information in the table provided:

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

Associated Outfall Number: If a discharge occurs from the impoundments, designate the outfall associated with the impoundment.

Liner Type: If the impoundments are lined to comply with specifications outlined for 1) a compacted clay liner (C), 2) an in-situ clay liner (I), or 3) a synthetic/plastic/rubber liner (S), indicate the liner type with the appropriate letter designation **(see instructions for further detail on liner specifications)**. If not, provide a reference to the attachment that provides a description of the alternate liner and any additional technical information necessary for an evaluation.

Dimensions: Provide the dimensions, freeboard, surface area, and storage capacity of the impoundments. For impoundments with irregular shapes, submit surface area (instead of length and width), the average depth, and the maximum depth below natural ground level.

Impoundment Information

Parameter	Pond #	Pond #	Pond #	Pond #
Use Designation: (T) (D) (C) or (E)				
Associated Outfall Number				
Liner Type (C) (I) or (S)				
Alt. Liner Attachment Reference				
Length (ft)				
Width (ft)				
Depth from Water Surface (ft)				
Avg Depth from Nat. Ground Level (ft)				
Max Depth from Nat. Ground Level (ft)				
Freeboard (ft)				
Surface Area (acres)				
Storage Capacity (gallons)				
Compliance with 40 CFR Chapter 257, Subpart D is required.	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

Impoundment Information

Parameter	Pond #	Pond #	Pond #	Pond #
Use Designation: (T) (D) (C) or (E)				
Associated Outfall Number				
Liner Type (C) (I) or (S)				
Alt. Liner Attachment Reference				
Length (ft)				
Width (ft)				
Depth from Water Surface (ft)				
Avg Depth from Nat. Ground Level (ft)				
Max Depth from Nat. Ground Level (ft)				
Freeboard (ft)				
Surface Area (acres)				
Storage Capacity (gallons)				
Compliance with 40 CFR Chapter 257, Subpart D is required.	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

The following information (b - h) is required only for **new or proposed** impoundments.

b. Indicate by a check mark if any of the following data was provided with the application:

☐ Compacted clay liner data

☐ Synthetic/plastic/rubber liner data

☐ In-situ clay liner data

Attachment: _____

c. Are there any leak detection systems or groundwater monitoring wells in place or planned?

☐ Yes ☐ No

If **yes**, attach information on the leak detection system for each pond and groundwater monitoring well data.

Attachment: _____

d. Is the bottom of the pond above the seasonal high water table in the shallowest waste-bearing zone?

☐ Yes ☐ No

If **no**, attach additional information describing the depth of the seasonal high water table in the shallowest waste-bearing zone in relation to the depth of the bottom of the new or proposed impoundment and how this may or may not impact groundwater.

Attachment: _____

e. Attach a USGS quadrangle map or a color copy of original quality and scale which accurately locates and identifies water supply wells and monitor wells within ½ mile radius of the impoundments

Attachment: _____

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

Attachment: _____

g. For TLAP permit applications: Are new or proposed impoundment(s) and the land application disposal area are located in the same general area?

☐ Yes ☐ No

If **yes**, provide information for this item in Worksheet 3.0 (Item 5).

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

Attachment: _____

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

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

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

Outfall Latitude and Longitude

Outfall Number	Latitude-degrees	Latitude-minutes	Latitude-seconds	Longitude-degrees	Longitude-minutes	Longitude-seconds

Outfall Location Description

Outfall Number	Location Description

Description of Sampling Points (if different from Outfall location)

Outfall Number	Description of Sampling Point

Outfall Flow Information – Permitted and Proposed

Outfall Number	Permitted Daily Avg Flow (MGD)	Permitted Daily Max Flow (MGD)	Proposed Daily Avg Flow (MGD)	Proposed Daily Max Flow (MGD)

Outfall Discharge – Method and Measurement

Outfall Number	Pumped Discharge? Y/N	Gravity Discharge? Y/N	Type of Flow Measurement Device Used

Outfall Discharge – Flow Characteristics

Outfall Number	Intermittent Discharge? Y/N	Seasonal Discharge? Y/N	Continuous Discharge? Y/N	Discharge Duration (hours/ day)	Discharge Duration (days/ month)	Discharge Duration (months/ year)

Wastestream Contributions

Outfall No. _____

Contributing Wastestreams	Volume (MGD)	% of Total Flow

Outfall No. _____

Contributing Wastestreams	Volume (MGD)	% of Total Flow

Outfall No. _____

Contributing Wastestreams	Volume (MGD)	% of Total Flow

Additional Outfall wastestream contributions included as **Attachment:** _____

5. BLOWDOWN AND ONCE-THROUGH COOLING WATER DISCHARGES (Instructions, Pages 43-44)

a. Does your facility use any cooling towers or boilers that discharge blowdown or other wastestreams to the outfall(s)?

☐ Yes ☐ No

b. Does your facility discharge once-through cooling water to the outfall(s)?

☐ Yes ☐ No

c. If **yes** to either Item a **or** b, attach the appropriate MSDS with the following information for each chemical additive.

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

Please provide a summary attachment of this information in addition to the submittal of the MSDS for each specific wastestream and the associated chemical additives and specify which outfalls are affected.

Attachment: _____

d. Cooling Towers and Boilers

Cooling Towers and Boilers

Type of Unit	Number of Units	Dly Avg Blowdown (gallons/day)	Dly Max Blowdown (gallons/day)
Cooling Towers			
Boilers			

6. STORMWATER MANAGEMENT (Instructions, Page 44)

Are there any existing or proposed outfalls which discharge stormwater runoff commingled with other wastestreams?

☐ Yes ☐ No

If **no**, proceed to Item 7.

If **yes**, briefly describe the industrial processes and activities that occur outdoors or in some manner that may result in exposure of the materials to precipitation or runoff in areas where runoff is generated.

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

a. Please check the appropriate method(s) of domestic sewage and domestic sewage sludge treatment/disposal and complete Worksheet 5.0 or Item 7.b if directed to do so.

- ☐ Facility is connected to a wastewater treatment plant permitted to receive domestic sewage, or the domestic sewage is transported off-site to a permitted facility for treatment, disposal, or both. COMPLETE ITEM 7.b BELOW.
- ☐ Domestic sewage is disposed of by an on-site septic tank and drainfield system. COMPLETE ITEM 7.b BELOW.
- ☐ Both domestic and industrial treatment sludge ARE commingled prior to use or disposal.
- ☐ Industrial wastewater and domestic sewage are treated separately, and the respective sludge IS NOT commingled prior to sludge use or disposal. COMPLETE WORKSHEET 5.0 OF THIS APPLICATION.
- ☐ Facility is a POTW. COMPLETE WORKSHEET 5.0 OF THIS APPLICATION.
- ☐ Domestic sewage is not generated on-site.
- ☐ Other (e.g., portable toilets): Please provide a detailed description:

b. Provide the name and TCEQ, NPDES, or TPDES Permit No. of the waste-disposal facility which receives the domestic sewage/septage. If hauled by motorized vehicle, provide the name and TCEQ Registration No. of the hauler.

Domestic Sewage Plant/Hauler Name

Plant/Hauler Name	Permit/Registration No

8. IMPROVEMENTS OR COMPLIANCE/ENFORCEMENT REQUIREMENTS (Instructions, Page 45)

Is the permittee currently required to meet any implementation schedule for compliance or enforcement?

☐ Yes ☐ No

If **yes**, provide a brief summary of the requirements and a status update.

9. TOXICITY TESTING (Instructions, Page 46)

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

☐ Yes ☐ No

If **yes**, identify the tests and describe their purposes below. Please attach a copy of all tests performed that have not been previously sent to the TCEQ or the EPA.

Attachment: _____

10. OFF-SITE/THIRD PARTY WASTES (Instructions, Page 46)

Do you receive wastes from off-site sources for any or all of the following: treatment in your facility, disposal on-site via land application, or discharge via a permitted outfall?

☐ Yes ☐ No

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

If **yes**, provide responses to Items a, b, and c below.

a. Attach the following information to the application:

- List of wastes received
- Characterization of wastes received
- Volumes of each waste received
- Information on compatibility with on-site wastes
- Identified sources of wastes received
- Name and addresses of generators
- Description of the relationship of waste source(s) with your facility's activities

Attachment: _____

b. Is wastewater from a TCEQ, NPDES, or TPDES permitted facility commingled with your wastewater after your final treatment and prior to discharge via your final outfall/point of disposal?

☐ Yes ☐ No

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

Attachment: _____

c. Is your facility a Publicly Owned Treatment Works (POTW) that accepts process wastewater from any Significant Industrial User (SIU) and has or is required to have an approved pretreatment program under the NPDES/TPDES program?

☐ Yes ☐ No

If **yes**, complete **Worksheet 6.0** of this application.

11. RADIOACTIVE MATERIALS (Instructions, Page 47)

a. Are radioactive materials mined, used, stored, or processed at this facility?

☐ Yes ☐ No

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

Radioactive Materials Mined, Used, Stored, or Processed

Radioactive Material	Concentration (pCi/L)

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

☐ Yes ☐ No

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

Radioactive Materials Present in the Discharge

Radioactive Material	Concentration (pCi/L)

Note: Items 12, 13, and 14 are required only for **existing permitted** facilities.

12. MAJOR AMENDMENT REQUESTS (Instructions, Page 47)

Are you requesting a major amendment of an existing permit?

☐ Yes ☐ No

If **yes**, list each specific request and provide discussion on the scope of any requested permit changes. If necessary, provide supplemental information or additional data that will support the request.

13. MINOR MODIFICATION REQUESTS (Instructions, Page 48)

Are you requesting any minor modifications to the permit? Note: see the instructions for an exclusive list of changes considered as minor modifications.

☐ Yes ☐ No

If **yes**, list and discuss the requested changes.

14. MINOR AMENDMENT REQUESTS (Instructions, Page 48)

Are you requesting any minor amendments to the permit?

☐ Yes ☐ No

If **yes**, list and discuss the requested changes.

WORKSHEET 1.0
EPA CATEGORICAL EFFLUENT GUIDELINES

This worksheet is required for all applications for TPDES permits for discharges of wastewaters subject to EPA categorical effluent guidelines.

1. CATEGORICAL INDUSTRIES (Instructions, Pages 51-52)

Is your facility subject to any of the 40 CFR effluent guidelines outlined on page 52 of the instructions?

☐ Yes ☐ No

If **yes**, provide the appropriate information in the table below.

If **no**, this worksheet is not required.

40 CFR Effluent Guidelines

Industry	40 CFR Part

2. PRODUCTION/PROCESS DATA (Instructions, Page 52)

a. Production Data

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

Production Data

Subcategory	Actual Quantity/Day	Design Quantity/Day	Units

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

Provide each appropriate subpart and the percent of total production. Also provide the appropriate data for metal-bearing wastestreams as required in *40 CFR Part 414*, Appendices A and B.

Percentages of Total Production

Subcategory	Percent of Total Production	Appendix A and B - Metal	Appendix A and B – Process

c. Refineries (40 CFR Part 419):

Provide the applicable subcategory and a brief justification.

3. PROCESS/NON-PROCESS WASTEWATER FLOWS (Instructions, Page 52)

Provide a breakdown of process wastewater flow(s) and non-process wastewater flow(s) as directed.

4. NEW SOURCE DETERMINATION (Instructions, Page 52)

Provide a list of wastewater-generating processes subject to effluent guidelines and the appropriate information.

Wastewater-generating Processes Subject to Effluent Guidelines

Process	EPA Guideline: Part	EPA Guideline: Subpart	Date Process/ Construction Commenced

WORKSHEET 2.0
POLLUTANT ANALYSES REQUIREMENTS

Worksheet 2.0 is **required** for applications submitted for a TPDES permit.

Worksheet 2.0 is **not required** for applications for a permit to dispose of all wastewater by land disposal or for discharges solely of stormwater runoff.

1. LABORATORY ACCREDITATION (Instructions, Page 53)

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

a. The laboratory is an in-house laboratory and is:

   1. periodically inspected by the TCEQ; or
   2. located in another state and is accredited or inspected by that state; or
   3. performing work for another company with a unit located in the same site; or
   4. performing pro bono work for a governmental agency or charitable organization.

b. The laboratory is accredited under federal law.

c. The data are needed for emergency-response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.

d. The laboratory supplies data for which the TCEQ does not offer accreditation.

The applicant should review *30 TAC Chapter 25* for specific requirements. The following certification statement shall be signed and submitted with every application. See Instructions, Page 32, for a list of designated representatives who may sign the certification.

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

2. GENERAL TESTING REQUIREMENTS (Instructions, Pages 53-55)

Please read the general testing requirements in the instructions for important information about sampling, test methods, MALs, and averaging sample results.

3. SPECIFIC TESTING REQUIREMENTS (Instructions, Pages 55-67)

Table 1 and Table 2

Completion of Tables 1 and 2 is required for all external outfalls for new, renewal, and amendment applications. (Instructions, Page 55).

Table 1 for Outfall No. _____; Samples are (check one): ☐ **Composites** ☐ **Grabs**

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)	Average (mg/L)
BOD (5-day)					
CBOD (5-day)					
Chemical oxygen demand					
Total organic carbon					
Dissolved oxygen					
Ammonia nitrogen					
Total suspended solids					
Nitrate nitrogen					
Total organic nitrogen					
Total phosphorus					
Oil and grease					
Total residual chlorine					
Total dissolved solids					
Sulfate					
Chloride					
Fluoride					
Total alkalinity (mg/L as $CaCO_3$)					
Temperature (°F)					
pH (standard units)					

Table 2 for Outfall No. _____; Samples are (check one): ☐ **Composites** ☐ **Grabs**

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Average (µg/L)	MAL (µg/L)
Aluminum, total						2.5
Antimony, total						5
Arsenic, total						0.5
Barium, total						3
Beryllium, total						0.5
Cadmium, total						1
Chromium, total						3
Chromium, hexavalent						3
Chromium, trivalent						N/A
Copper, total						2
Cyanide, available						2/10
Lead, total						0.5
Mercury, total						0.005/0.0005
Nickel, total						2
Selenium, total						5
Silver, total						0.5
Thallium, total						0.5
Zinc, total						5.0

TABLE 3

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

Partial completion of Table 3 is required for all external outfalls with non-process wastewater discharges.

For discharges of stormwater runoff commingled with other wastestreams, complete Table 3 as instructed (Instructions, Pages 55-56).

Table 3 for Outfall No. _____; Samples are (check one): ☐ Composites ☐ Grabs

Pollutant	Samp. 1 (µg/L)*	Samp. 2 (µg/L)*	Samp. 3 (µg/L)*	Samp. 4 (µg/L)*	Avg. (µg/L)*	MAL (µg/L)*
Acrylonitrile						50
Anthracene						10
Benzene						10
Benzidine						50
Benzo(a)anthracene						5
Benzo(a)pyrene						5
Bis(2-chloroethyl)ether						10
Bis(2-ethylhexyl)phthalate						10
Bromodichloromethane [Dichlorobromomethane]						10
Bromoform						10
Carbon tetrachloride						2
Chlorobenzene						10
Chlorodibromomethane [Dibromochloromethane]						10
Chloroform						10
Chrysene						5
m-Cresol [3-Methylphenol]						10
o-Cresol [2-Methylphenol]						10
p-Cresol [4-Methylphenol]						10
1,2-Dibromoethane						10
m-Dichlorobenzene [1,3-Dichlorobenzene]						10
o-Dichlorobenzene [1,2-Dichlorobenzene]						10
p-Dichlorobenzene [1,4-Dichlorobenzene]						10
3,3'-Dichlorobenzidine						5
1,2-Dichloroethane						10
1,1-Dichloroethene [1,1-Dichloroethylene]						10
Dichloromethane [Methylene chloride]						20
1,2-Dichloropropane						10
1,3-Dichloropropene [1,3-Dichloropropylene]						10

Pollutant	Samp. 1 (µg/L)*	Samp. 2 (µg/L)*	Samp. 3 (µg/L)*	Samp. 4 (µg/L)*	Avg. (µg/L)*	MAL (µg/L)*
2,4-Dimethylphenol						10
Di-n-Butyl phthalate						10
Ethylbenzene						10
Fluoride						500
Hexachlorobenzene						5
Hexachlorobutadiene						10
Hexachlorocyclopentadiene						10
Hexachloroethane						20
Methyl ethyl ketone						50
Nitrobenzene						10
N-Nitrosodiethylamine						20
N-Nitroso-di-n-butylamine						20
Nonylphenol						333
Pentachlorobenzene						20
Pentachlorophenol						5
Phenanthrene						10
Polychlorinated biphenyls (PCBs) (**)						0.2
Pyridine						20
1,2,4,5-Tetrachlorobenzene						20
1,1,2,2-Tetrachloroethane						10
Tetrachloroethene [Tetrachloroethylene]						10
Toluene						10
1,1,1-Trichloroethane						10
1,1,2-Trichloroethane						10
Trichloroethene [Trichloroethylene]						10
2,4,5-Trichlorophenol						50
TTHM (Total trihalomethanes)						10
Vinyl chloride						10

(*) Indicate units if different from µg/L.
(**) Total of PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, and PCB-1016

TABLE 4

Partial completion of Table 4 (only those pollutants which are required by the conditions specified below) **is required** for each external outfall.

Completion of Table 4 **is not required** for internal outfalls. (Instructions, Pages 56-57)

a. Tributyltin

Is your facility an industrial/commercial facility which directly disposes of wastewater from the types of operations listed below or a domestic facility which receives wastewater from the types of industrial/commercial operations listed below?

☐ Yes ☐ No

If **yes**, indicate with a check mark all of the following criteria which apply and provide the appropriate testing results in the table below.

☐ Manufacturers and formulators of tributyltin or related compounds

☐ Painting of ships, boats and marine structures

☐ Ship and boat building and repairing

☐ Ship and boat cleaning, salvage, wrecking and scaling

☐ Operation and maintenance of marine cargo handling facilities and marinas

☐ Facilities engaged in wood preserving

☐ Any other industrial/commercial facility for which tributyltin is known to be present, or for which there is any reason to believe that tributyltin may be present in the effluent.

b. Enterococci

Does or will your facility discharge **directly** into **saltwater** receiving waters **and**:

Enterococci bacteria are expected to be present in the discharge based on facility processes?

☐ Yes ☐ No

Domestic wastewater is or will be discharged?

☐ Yes ☐ No

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

c. E. coli

Does or will your facility discharge **directly** into **freshwater** receiving waters **and**:

E. coli bacteria are expected to be present in the discharge based on facility processes?

☐ Yes ☐ No

Domestic wastewater is or will be discharged?

☐ Yes ☐ No

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

Table 4 for Outfall No. _____; Samples are (check one): ☐ **Composites** ☐ **Grabs**

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

TABLE 5

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

Completion of Table 5 **is not required** for internal outfalls. (Instructions, Page 57)

Does your facility manufacture or formulate pesticides or herbicides?

☐ Yes ☐ No

If **yes**, provide the appropriate testing results in Table 5.

Table 5 for Outfall No. _____; Samples are (check one): ☐ **Composites** ☐ **Grabs**

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	Average (µg/L)*	MAL (µg/L)*
Aldrin						0.01
Carbaryl						5
Chlordane						0.2
Chlorpyrifos						0.05
4,4'-DDD						0.1
4,4'-DDE						0.1
4,4'-DDT						0.02
2,4-D						0.7
Danitol [Fenpropathrin]						—
Demeton						0.20
Diazinon						0.5/0.1
Dicofol [Kelthane]						1
Dieldrin						0.02
Diuron						0.090
Endosulfan I (*alpha*)						0.01
Endosulfan II (*beta*)						0.02
Endosulfan sulfate						0.1
Endrin						0.02
Guthion [Azinphos methyl]						0.1
Heptachlor						0.01
Heptachlor epoxide						0.01
Hexachlorocyclohexane (*alpha*)						0.05
Hexachlorocyclohexane (*beta*)						0.05
Hexachlorocyclohexane (*gamma*) [Lindane]						0.05
Hexachlorophene						10
Malathion						0.1
Methoxychlor						2.0
Mirex						0.02
Parathion (ethyl)						0.1

Pollutant	Sample 1 (µg/L)*	Sample 2 (µg/L)*	Sample 3 (µg/L)*	Sample 4 (µg/L)*	Average (µg/L)*	MAL (µg/L)*
Toxaphene						0.3
2,4,5-TP [Silvex]						0.3

* Indicate units if different from µg/L.

TABLE 6

Completion of Table 6 is required for all external outfalls but is not required for internal outfalls. (Instructions, Page 57)

Table 6 for Outfall No. _____; Samples are (check one): ☐ **Composites** ☐ **Grabs**

Pollutants	Believed Present	Believed Absent	Average Concentration (mg/L)	Maximum Concentration (mg/L)	No. of Samples	MAL (µg/L)*
Bromide						400
Color (PCU)						—
Nitrate-Nitrite (as N)						—
Sulfide (as S)						—
Sulfite (as SO3)						—
Surfactants						—
Boron, total						20
Cobalt, total						0.3
Iron, total						7
Magnesium, total						20
Manganese, total						0.5
Molybdenum, total						1
Tin, total						5
Titanium, total						30

* Indicate units if different from µg/L.

TABLE 7

Indicate with a check mark any of the industrial categories applicable to your facility; otherwise, check the "N/A" box below. If GC/MS testing is required, indicate with a check mark in the box provided that the testing results for the appropriate parameters are provided with the application. (Instructions, Page 57)

☐ N/A

Table 7 for Applicable Industrial Categories

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

* Test if believed present.

TABLES 8, 9, 10, and 11

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

Completion of Tables 8, 9, 10, and 11 **is not required** for internal outfalls.

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

(Instructions, Pages 57-58)

Table 8 for Outfall No. _____ : Volatile Compounds

Samples are (check one): ☐ **Composites** ☐ **Grabs**

Pollutant	Average (µg/L)*	Maximum (µg/L)*	No. 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 [1,1-Dichloroethene]				10
1,2-Dichloropropane				10
1,3-Dichloropropylene [1,3-Dichloropropene]				10
Ethylbenzene				10
Methyl bromide [Bromomethane]				50
Methyl chloride [Chloromethane]				50
Methylene chloride [Dichloromethane]				20
1,1,2,2-Tetrachloroethane				10
Tetrachloroethylene [Tetrachloroethene]				10
Toluene				10
1,2-Trans-dichloroethylene [1,2-Trans-dichloroethene]				10
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene [Trichloroethene]				10
Vinyl chloride				10

Table 9 for Outfall No. _____: Acid Compounds

Samples are (check one): ☐ **Composites** ☐ **Grabs**

Pollutant	Average (µg/L)*	Maximum (µg/L)*	No. 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
Pentachlorophenol				5
Phenol				10
2,4,6-Trichlorophenol				10

Table 10 for Outfall No. _____: Base/Neutral Compounds

Samples are (check one): ☐ **Composites** ☐ **Grabs**

Pollutant	Average (µg/L)*	Maximum (µg/L)*	No. of Samples	MAL (µg/L)
Acenaphthene				10
Acenaphthylene				10
Anthracene				10
Benzidine				50
Benzo(a)anthracene				5
Benzo(a)pyrene				5
3,4-Benzofluoranthene [Benzo(b)fluoranthene]				10
Benzo(ghi)perylene				20
Benzo(k)fluoranthene				5
Bis(2-chloroethoxy)methane				10
Bis(2-chloroethyl)ether				10
Bis(2-chloroisopropyl)ether				10
Bis(2-ethylhexyl)phthalate				10
4-Bromophenyl phenyl ether				10
Butylbenzyl phthalate				10
2-Chloronaphthalene				10
4-Chlorophenyl phenyl ether				10
Chrysene				5
Dibenzo(a,h)anthracene				5
1,2-Dichlorobenzene [o-Dichlorobenzene]				10
1,3-Dichlorobenzene [m-Dichlorobenzene]				10
1,4-Dichlorobenzene [p-Dichlorobenzene]				10

Pollutant	Average (µg/L)*	Maximum (µg/L)*	No. of Samples	MAL (µg/L)
3,3'-Dichlorobenzidine				5
Diethyl phthalate				10
Dimethyl phthalate				10
Di-n-butyl phthalate				10
2,4-Dinitrotoluene				10
2,6-Dinitrotoluene				10
Di-n-octyl phthalate				10
1,2-Diphenylhydrazine (as Azobenzene)				20
Fluoranthene				10
Fluorene				10
Hexachlorobenzene				5
Hexachlorobutadiene				10
Hexachlorocyclopentadiene				10
Hexachloroethane				20
Indeno(1,2,3-cd)pyrene				5
Isophorone				10
Naphthalene				10
Nitrobenzene				10
N-Nitrosodimethylamine				50
N-Nitrosodi-n-propylamine				20
N-Nitrosodiphenylamine				20
Phenanthrene				10
Pyrene				10
1,2,4-Trichlorobenzene				10

Table 11 for Outfall No. _____ : Pesticides

Samples are (check one): ☐ **Composites** ☐ **Grabs**

Pollutant	Average (µg/L)*	Maximum (µg/L)*	No. of Samples	MAL (µg/L)
Aldrin				0.01
alpha-BHC [alpha-Hexachlorocyclohexane]				0.05
beta-BHC [beta-Hexachlorocyclohexane]				0.05
gamma-BHC [gamma-Hexachlorocyclohexane]				0.05
delta-BHC [delta-Hexachlorocyclohexane]				0.05
Chlordane				0.2
4,4'-DDT				0.02
4,4'-DDE				0.1
4,4'-DDD				0.1
Dieldrin				0.02
Endosulfan I (alpha)				0.01

Pollutant	Average (µg/L)*	Maximum (µg/L)*	No. of Samples	MAL (µg/L)
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

* Indicate units if different from µg/L

TABLE 12 (DIOXINS/FURAN COMPOUNDS)

Complete Table 12 as directed. Table 12 is not required for internal outfalls. (Instructions, Pages 58-59)

a. Are any of the following compounds manufactured or used in a process at the facility?

☐ Yes ☐ No

If **yes**, indicate with a check mark which compound(s) are manufactured or used at the facility and provide a brief description of the conditions of its/their presence at the facility.

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

Description:

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

If yes, provide a brief description of the conditions for its presence.

c. If you responded **yes** to either Item a **or** b, complete Table 12 as instructed.

Table 12 for Outfall No. _____; Samples are (check one): ☐ **Composites** ☐ **Grabs**

Compound	Toxicity Equivalent Factors	Wastewater Concentration (ppq)	Wastewater Toxicity Equivalents (ppq)	Sludge Concentration (ppt)	Sludge Toxicity Equivalents (ppt)	MAL (ppq)
2,3,7,8-TCDD	1					10
1,2,3,7,8-PeCDD	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						

TABLE 13 (HAZARDOUS SUBSTANCES)

Complete Table 13 as directed. Not required for internal outfalls. (Instructions, Pages 59-60)

a. Are there any pollutants listed in the instructions (page 60) believed present in the discharge?

☐ Yes ☐ No

b. Are there pollutants listed in Item 1.d. on page 1 of this technical report which are believed present in the discharge and have not been analytically quantified elsewhere in this application?

☐ Yes ☐ No

If you responded **yes** to **either** Item a **or** b, complete Table 13 as instructed.

Table 13 for Outfall No. _____

Samples are (check one): ☐ **Composites** ☐ **Grabs**

Pollutant	CASRN	Average (µg/L)	Maximum (µg/L)	No. of Samples	Analytical Method

WORKSHEET 3.0
LAND APPLICATION OF EFFLUENT

This worksheet **is required** for all renewal, amendment, and new applications for a permit to dispose of wastewater by land application.

1. TYPE OF DISPOSAL SYSTEM (Instructions, Page 68)

Indicate with a check mark the type of land disposal being proposed.

- ☐ Irrigation
- ☐ Evaporation
- ☐ Evapotranspiration beds
- ☐ Drip irrigation system
- ☐ Subsurface application
- ☐ Subsurface soils absorption
- ☐ Surface application
- ☐ Other (describe below in detail):

_____

2. LAND APPLICATION AREA (Instructions, Page 68)

Land Application Area Information

Effluent Application (gallons/day)	Irrigation Acreage (acres)	Describe land use & indicate type(s) of crop(s)	Public Access? (Y/N)

3. ANNUAL CROPPING PLAN (Instructions, Page 68)

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

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

Attachment: _____

4. STORMWATER MANAGEMENT (Instructions, Page 69)

Is stormwater runoff a component of the effluent disposed of via land application?

☐ Yes ☐ No

If **yes**, provide the following information:

Stormwater Management Disposal Areas

Disposal Area	Area Contributing Runoff (acres)	Primary Soil Type	Cover Type (i.e. pasture, row crop land, concrete slab, etc.)

If **no**, provide a description of tailwater controls and stormwater run-on controls used for the disposal area.

5. WELL AND MAP INFORMATION (Instructions, Page 69)

Indicate by a check mark that the following information is shown and labeled on the USGS map:

☐ The boundaries of the land application site(s)
☐ On-site buildings
☐ Waste-disposal or treatment facilities
☐ All water wells within ½-mile radius of the disposal site or property boundaries
☐ All springs and seeps onsite and within 500 feet of the property
☐ All surface waters in the state onsite and within 500 feet of the property
☐ Effluent storage and tailwater control facilities
☐ Buffer zones

List and cross reference all water wells located on or within 500 feet of the disposal site or property boundaries in the following table. Attach additional pages as necessary to include all of the wells.

Well Map Information

Well ID	Well Use	Producing? Y/N	Open, cased, capped, or plugged?	Proposed Best Management Practice

Do you plan to install groundwater monitoring wells or lysimeters around the land application site?

☐ Yes ☐ No

If **yes**, provide the proposed location of the monitoring wells or lysimeters on a site map.

6. SOIL MAP AND SOIL INFORMATION (Instructions, Page 70)

Indicate by a check mark that the following information was provided:

☐ USDA Soil Survey map that indicates the area to be used for land application with the locations identified by fields and crops

☐ Breakdown of acreage and percent of total acreage for each soil type

☐ Copies of laboratory soil analyses

7. LABORATORY ACCREDITATION CERTIFICATION (Instructions, Page 71)

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

a. The laboratory is an in-house laboratory and is:

   1. periodically inspected by the TCEQ; or
   2. located in another state and is accredited or inspected by that state; or
   3. performing work for another company with a unit located in the same site; or
   4. performing pro bono work for a governmental agency or charitable organization.

b. The laboratory is accredited under federal law.

c. The data are needed for emergency-response activities, and a laboratory accredited under the Texas Laboratory Accreditation Program is not available.

d. The laboratory supplies data for which the TCEQ does not offer accreditation.

The applicant should review *30 TAC Chapter 25* for specific requirements. The following certification statement shall be signed and submitted with every application. See Instructions, Page 32, for a list of designated representatives who may sign the certification.

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

8. EFFLUENT MONITORING DATA (Instructions, Page 71)

Completion of Table 14 is required for all renewal and amendment applications. Provide monitoring data for the previous two years for all parameters regulated in the permit. A table with blank headers has been provided for parameters that are not listed in the first table.

Table 14 for Site No. _____; Samples are (check one): ☐ **Composites** ☐ **Grabs**

Date (mo/yr)	Daily Avg Flow (gpd)	BOD5 (mg/L)	TSS (mg/L)	Nitrogen (mg/L)	Conductivity (mmhos/cm)	Total acres irrigated	Hydraulic Application rate (acre-feet/month)

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

Attachment: _____

Use this table to provide effluent analysis for parameters not listed in the table above.

Additional Parameter Effluent Analysis

Date (mo/yr)							

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

Attachment: _____

9. POLLUTANT ANALYSIS (Instructions, Page 71)

Completion of Tables 15 and 16 is required for all permit applications for the authorization of land application of effluent.

Table 15 for Site No. _____; Samples are (check one): ☐ **Composites** ☐ **Grabs**

Pollutant	Sample 1 (mg/L)	Sample 2 (mg/L)	Sample 3 (mg/L)	Sample 4 (mg/L)	Average (mg/L)
BOD (5-day)					
CBOD (5-day)					
Chemical oxygen demand					
Total organic carbon					
Ammonia nitrogen					
Total suspended solids					
Nitrate nitrogen					
Total organic nitrogen					
Total phosphorus					
Oil and grease					
Total residual chlorine					
Total dissolved solids					
Sulfate					
Chloride					
Fluoride					
Fecal Coliform (cfu/100 mL)					
Specific conductance (mmhos/cm)					
pH (standard units; min/max)					
Soluble sodium					
Soluble calcium					
Soluble magnesium					
SAR (unitless)					

Table 16: for Site No._____; Samples are (check one): ☐ **Composites** ☐ **Grabs**

Pollutant	Sample 1 (µg/L)	Sample 2 (µg/L)	Sample 3 (µg/L)	Sample 4 (µg/L)	Average (µg/L)	MAL (µg/L)
Aluminum, total						2.5
Antimony, total						5
Arsenic, total						0.5
Barium, total						3
Beryllium, total						0.5
Boron, total						20
Cadmium, total						1
Chromium, total						3
Chromium, hexavalent						3
Chromium, trivalent						N/A
Copper, total						2
Cyanide						2/10
Lead, total						0.5
Mercury, total						0.005/0.0005
Nickel, total						2
Selenium, total						5
Silver, total						0.5
Thallium, total						0.5
Zinc, total						5.0

WORKSHEET 3.1
SURFACE LAND APPLICATION AND EVAPORATION

This worksheet **is required** for all renewal, amendment, and new applications for a permit to dispose of wastewater by surface land application.

1. SURFACE SPRAY (Instructions, Page 72)

Area under irrigation (acres): _____

Design application rate (acre-ft/acre/yr): _____

Design application frequency (hours/day): _____

Design application frequency (days/week): _____

Design total nitrogen loading rate (lbs nitrogen/acre/year): _____

Average slope of the application area (percent): _____

Maximum slope of the application area (percent): _____

Irrigation efficiency (percent): _____

Effluent conductivity (mmhos/cm): _____

Soil conductivity (mmhos/cm): _____

Curve number: _____

Method of Application: _____

Attach a detailed engineering report with water balance, storage volume calculations, and nitrogen balance.

Attachment: _____

2. EVAPORATION PONDS (Instructions, Page 73)

Daily average effluent flow into ponds: gallons per day

Attach a separate engineering report with water balance and storage volume calculations.

Attachment: _____

3. EVAPOTRANSPIRATION BEDS (Instructions, Page 73)

Number of beds: _____

Area of bed(s) (acres): _____

Depth of bed(s) (feet): _____

Void ratio of soil in the beds: _____

Storage volume within the beds (include units): _____

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

Attachment: _____

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

Attachment: _____

4. OVERLAND FLOW (Instructions, Page 73)

Area used for application (acres): _____

Slopes for application area (percent): _____

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

Slope length (feet): _____

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

Design application frequency (hours/day): _____

Design application frequency (days/week): _____

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

Attachment: _____

5. EDWARDS AQUIFER RECHARGE AREA (Instructions, Page 73)

Is the facility subject to 30 TAC Chapter 213, Edwards Aquifer Rules?

☐ Yes ☐ No

Attach a report that describes the surface geological units present in the proposed land application site and identify the location and extent of any significant regard areas in the land application site.

Attachment: _____

WORKSHEET 3.2
SUBSURFACE IRRIGATION SYSTEMS (NON-DRIP)

This worksheet **is required** for all renewal, amendment, and new applications for a permit to dispose of wastewater by subsurface land application.

This worksheet **is not required** for systems that meet the definition of a Subsurface Area Drip Dispersal System as defined in 30 TAC Chapter 222.

☐ Indicate by a check mark that the Class V Injection Well Inventory/Authorization Form (Worksheet 9.0) for this type of disposal system has been submitted to the TCEQ UIC Permits Team as directed.

1. SUBSURFACE APPLICATION (Instructions, Page 74)

Check the type of subsurface land disposal system you use or are proposing to use:

☐ Conventional drainfield, beds, or trenches

☐ Low pressure dosing

☐ Other:

Provide the following information:

Application area (acres): _____

Area of drainfield (square feet): _____

Application rate (gal/square ft/day): _____

Depth to groundwater (feet): _____

Area of trench (square feet): _____

Dosing duration per area (hours): _____

Number of beds: _____

Dosing amount per area (inches/day): _____

Soil infiltration rate (inches/hour): _____

Storage volume (gallons): _____

Area of bed(s) (square feet): _____

Soil classification: _____

Attach a separate engineering report with all necessary information and a description of the schedule of dosing basin rotation.

Attachment: _____

2. EDWARDS AQUIFER RECHARGE AREA (Instructions, Page 74)

a. Is the subsurface system located on the Edwards Aquifer Recharge Zone, as mapped by the TCEQ?

☐ Yes ☐ No

b. Is the subsurface system located on the Edwards Aquifer Transition Zone, as mapped by the TCEQ?

☐ Yes ☐ No

If **yes** to **either** question, the subsurface system may be prohibited by *30 TAC §213.8*. Please call the Industrial Permits Team to schedule a pre-application meeting.

WORKSHEET 3.3
SUBSURFACE AREA DRIP DISPERSAL SYSTEMS

This worksheet **is required** for all renewal, amendment, and new applications for a permit to dispose of wastewater using a subsurface area drip dispersal system.

☐ Indicate by a check mark that the Class V Injection Well Inventory/Authorization Form (Worksheet 9.0) for this type of disposal system has been submitted to the TCEQ UIC Permits Team as directed.

1. ADMINISTRATIVE INFORMATION (Instructions, Page 75)

a. Provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the treatment facility.

b. Is the owner of the land where the treatment facility is located the same as the owner of the treatment facility?

☐ Yes ☐ No

If **no**, provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the land where the treatment facility is located.

c. Owner of the subsurface area drip dispersal system:

d. Is the owner of the subsurface area drip dispersal system the same as the owner of the wastewater treatment facility or the site where the wastewater treatment facility is located?

☐ Yes ☐ No

If **no**, identify the names of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in Item 1.c.

e. Owner of the land where the subsurface area drip dispersal system is located:

f. Is the owner of the land where the subsurface area drip dispersal system is located the same as owner of the wastewater treatment facility, the site where the wastewater treatment facility is located, or the owner of the subsurface area drip dispersal system?

☐ Yes ☐ No

If **no**, identify the name of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in item 1.e.

2. SUBSURFACE AREA DRIP DISPERSAL SYSTEM (Instructions, Page 76)

a. Check the type of system you use or are proposing to use:

☐ Subsurface drip/trickle irrigation
☐ Surface drip irrigation
☐ Other:

b. Provide the following information:

Application area (acres): _____
Soil infiltration rate (inches/hour): _____
Average slope of the application area: _____
Maximum slope of the application area: _____
Storage volume (gallons): _____
Major soil series: _____
Depth to groundwater (feet): _____
Effluent conductivity (mmhos/cm): _____

c. Is the facility located west of the boundary shown in *30 TAC §222.83* and using a vegetative cover of non-native grasses overseeded with cool-season grasses?

☐ Yes ☐ No

If **yes**, the facility may propose a hydraulic application rate not to exceed 0.1 gal/square foot/day.

d. Is the facility located east of the boundary shown in *30 TAC §222.83* or is the facility proposing any crop other than non-native grasses?

☐ Yes ☐ No

If **yes**, the facility must use the formula in *30 TAC §222.83* to calculate the maximum hydraulic application rate.

e. Do you plan to submit an alternative method to calculate the hydraulic application rate for approval by the executive director?

☐ Yes ☐ No

If yes, provide the following information:

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

f. Provide the following dosing information:

Number of doses per day: _____

Dosing duration per area (hours): _____

Rest period between doses: _____

Dosing amount per area (inches/day): _____

Number of zones: _____

Is the proposed system is a surface drip irrigation system proposing to use existing native vegetation as a crop?

☐ Yes ☐ No

If **yes**, attach the following:

- a vegetation survey by a certified arborist describing the percent canopy cover and relative percentage of major overstory and understory plant species.

  Attachment: _____

- a separate engineering report with all necessary information and a description of the schedule of dosing basin rotation.

  Attachment: _____

3. REQUIRED PLANS (Instructions, Page 77)

a. Attach a Recharge Feature Plan with all information required in *30 TAC §222.79*.

Attachment: _____

b. Attach a Soil Evaluation with all information required in *30 TAC §222.73*.

Attachment: _____

c. Attach a Site Preparation Plan with all information required in *30 TAC §222.75*.

Attachment: _____

d. Provide soil sampling and testing with all information required in *30 TAC §222.157*.

Attachment: _____

4. FLOOD AND RUN-ON PROTECTION (Instructions, Page 77)

a. Is the existing/proposed subsurface area drip dispersal system located within the 100-year frequency flood level?

☐ Yes ☐ No

Source:

If **yes**, describe how the site will be protected from inundation.

b. Is the existing/proposed subsurface area drip dispersal system within a designated floodway?

☐ Yes ☐ No

If **yes**, indicate by a check mark that either the FEMA flood map or alternate information used to make this determination is included with the application. Include the attachment number.

Attachment: _____

5. SUBSURFACE WATERS IN THE STATE (Instructions, Page 78)

a. Buffer Map

Attach a map showing appropriate buffers on surface waters in the state, water wells, and springs/seeps.

Attachment: _____

b. Buffer variance request

Do you plan to request a buffer variance from water wells or waters in the state?

☐ Yes ☐ No

If **yes**, then attach the additional information required in 30 TAC §222.81(c).

Attachment: _____

6. EDWARDS AQUIFER RECHARGE AREA (Instructions, Page 78)

a. Is the subsurface area drip dispersal system located on the Edwards Aquifer Recharge Zone, as mapped by the TCEQ?

☐ Yes ☐ No

b. Is the subsurface area drip dispersal system located on the Edwards Aquifer Transition Zone, as mapped by the TCEQ?

☐ Yes ☐ No

If **yes** to **either** question, the subsurface area drip dispersal system may be prohibited by *30 TAC §213.8*. Please call the Industrial Permits Team to schedule a pre-application meeting.

WORKSHEET 4.0
RECEIVING WATERS

This worksheet **is required** for all renewal, amendment, and new TPDES permit applications.

1. DOMESTIC DRINKING WATER SUPPLY (Instructions, Page 79)

Is there a surface water intake for domestic drinking water supply located within 5 (five) miles downstream from the point/proposed point of discharge?

☐ Yes ☐ No

If **yes**, identify owner of the drinking water supply, the distance and direction to the intake, and locate and identify the intake on the USGS map.

☐ Indicate by a check mark that the requested information is provided.

2. DISCHARGE INTO TIDALLY INFLUENCED WATERS (Instructions, Page 79)

a. Width of the receiving water at the outfall? _____ feet

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

☐ Yes ☐ No

If **yes**, indicate approximate distance and direction from outfall(s):

_____

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

☐ Yes ☐ No

If **yes**, provide the distance and direction to the grasses:

_____

3. CLASSIFIED SEGMENT (Instructions, Page 79)

Is the discharge directly into (or within 300 feet of) a classified segment?

☐ Yes ☐ No

If **yes, stop here**. It is not necessary to complete Items 4 and 5, and it is not necessary to complete Worksheet 4.1.

If **no**, complete Items 4 and 5.

4. DESCRIPTION OF IMMEDIATE RECEIVING WATERS (Instructions, Page 80)

Name of the immediate receiving waters:

a. Check the appropriate description of the receiving waters

☐ Lake or Pond

Surface area (acres): _____

Average depth of the entire water body (feet): _____

Average depth of water body within a 500-foot radius of the discharge point (feet): _____

☐ Man-made Channel or Ditch

☐ Stream or Creek

☐ Freshwater Swamp or Marsh

☐ Tidal Stream, Bayou, or Marsh

☐ Open Bay

☐ Other: _____

If you checked "man-made channel or ditch" or "stream or creek" above, provide responses to items b - e below:

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

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

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

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

☐ Perennial (normally flowing)

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

☐ USGS flow records

☐ personal observation

☐ historical observation by adjacent landowner(s)

☐ others, specify: _____

c. List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point:

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

☐ Yes ☐ No

If yes, discuss how:

e. Provide general observations of the water body during normal dry weather conditions:

Date and time of observation: _____

Was water body influenced by stormwater runoff during observations?

☐ Yes ☐ No

5. GENERAL CHARACTERISTICS OF WATER BODY (Instructions, Page 80)

a. Is the receiving water upstream of the existing discharge or proposed discharge site influenced by (check as appropriate):

☐ oil field activities
☐ agricultural runoff
☐ upstream discharges
☐ urban runoff
☐ septic tanks
☐ others, specify below: _____

b. Uses of water body observed or evidence of such uses (check as appropriate):

☐ livestock watering
☐ non-contact recreation
☐ domestic water supply
☐ contact recreation
☐ fishing
☐ industrial water supply
☐ irrigation withdrawal
☐ navigation
☐ picnic park activities
☐ others, specify:
_____

c. Check the description (only one) that best describes the aesthetics of the receiving water and the surrounding area:

☐ Wilderness: outstanding natural beauty; usually wooded or unpastured area: water clarity exceptional

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

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

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

WORKSHEET 4.1
STREAM PHYSICAL CHARACTERISTICS

The following information **is required** for all new applications, all major facilities, and any applications requesting to add an outfall if the receiving waters are **perennial** or **intermittent with perennial pools**.

Date of study: _____ Time of study: _____

Stream name: _____

Location: _____

Type of stream upstream of existing discharge or downstream of proposed discharges, (check one):

☐ **perennial** ☐ **intermittent with perennial pools**

Complete the transects downstream of the existing or proposed discharges.

1. DATA COLLECTION (Instructions, Pages 81-82)

No. of stream bends:

_____ well defined _____ moderately defined _____ poorly defined

No. of riffles:

Evidence of Flow fluctuations (check one):

_____ minor _____ moderate _____ severe

Indicate the observed stream uses and if there is evidence or flow fluctuations or channel obstructions/modifications:

Stream Transect Data

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

* riffle, run, glide, or pool

** channel bed to water surface

2. SUMMARIZE MEASUREMENTS (Instructions, Page 82)

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

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

Length of stream evaluated (ft) : _____

Number of lateral transects made: _____

Average stream width (ft) : _____

Average stream depth (ft) : _____

Average stream velocity (ft/sec) : _____

Instantaneous stream flow (ft^3/sec) : _____

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

Flow fluctuations (minor, moderate, severe) : _____

Size of pools (large, small, moderate, none) : _____

Maximum pool depth (ft) : _____

Total number of stream bends: _____

Number well defined: _____

Number moderately defined: _____

Number poorly defined: _____

Total number of riffles: _____

WORKSHEET 5.0
SEWAGE SLUDGE MANAGEMENT AND DISPOSAL

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

1. SEWAGE SLUDGE SOLIDS MANAGEMENT PLAN (Instructions, Page 83)

a. Is this a new permit application or an amendment permit application?

☐ Yes ☐ No

b. Does the facility discharge in the Lake Houston watershed?

☐ Yes ☐ No

If yes to either Item a or b, attach a solids management plan.

Attachment: _____

2. SEWAGE SLUDGE MANAGEMENT AND DISPOSAL (Instructions, Page 84)

a. Please check the current sludge disposal method(s). More than one method can be checked.

☐ Permitted landfill
☐ Marketing and distribution by the permittee
☐ Registered land application site
☐ Composted by the permittee
☐ Surface disposal site (sludge monofill)
☐ Transported to another WWTP (written statement or contractual agreement required)
☐ Beneficial land application as authorized in the existing permit

b. Disposal site name:

TCEQ Permit/Registration Number: _____

County where disposal site is located: _____

c. Method of transportation (truck, train, pipe, other): _____

Hauler Registration Number: _____

Sludge is transported as a: _____

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

Purpose of land application (check one): ☐ reclamation ☐ soil conditioning

Provide a written statement or copy of contractual agreements confirming that the wastewater treatment plant identified above will accept and be responsible for the sludge from the plant for the life of the permit (at least 5 years).

Attachment: _____

d. If the existing permit contains authorization for sludge land application, composting, marketing and distribution of sludge, or sludge lagoons and authorization to renew the activity is being sought in the application, the appropriate sections of the Sewage Sludge Technical Report (form TCEQ-10056) must be provided.

3. PERMIT AUTHORIZATION FOR SEWAGE SLUDGE DISPOSAL (Instructions, Page 84)

Are you requesting new authorization to beneficially land apply sewage sludge at this site or a site under your direct control?

☐ Yes ☐ No

Are you requesting new authorization to market and distribute sewage sludge at this facility or a facility under your direct control?

☐ Yes ☐ No

Are you requesting new authorization to compost sewage sludge?

☐ Yes ☐ No

Are you requesting new authorization to surface dispose sewage sludge at this site or site under your direct control?

☐ Yes ☐ No

Are you requesting new authorization to incinerate sewage sludge at this site or site under your direct control?

☐ Yes ☐ No

If **yes** to **any** of the above items, provide the information required in the *Sewage Sludge Technical Report* (form TCEQ-10056).

Attachment: _____

New authorization for beneficial land application, incineration, and sludge lagoons in the TPDES permit or TLAP **requires a major amendment to the permit**. New authorization for composting may require a major amendment to the permit. See the instructions for an explanation whether a major amendment is required or if authorization for composting can be added through the renewal process.

WORKSHEET 6.0
INDUSTRIAL WASTE CONTRIBUTION

1. ALL POTWS (Instructions, Page 85)

a. Provide the number of each of the following types of industrial users (IUs) that discharge to your POTW and the daily average flows from each. See Definitions for Categorical IU (CIU), Significant IU (SIU) – Non-Categorical, and Other IU.

Industrial User Information

Type of Industrial User	Number of Industrial Users	Daily Average Flow (gallons per day)
CIU		
SIU - Non-categorical		
Other IU		

b. In the past three years, has your POTW experienced treatment plant interference as defined in the Definition section of the instructions?

☐ Yes ☐ No

If **yes**, identify the date(s), duration, nature of interference, and probable cause(s) and possible source(s) of each interference event. Include the names of the IU(s) that may have caused the interference. Submit an attachment if necessary.

Attachment: _____

c. In the past three years, has your POTW experienced pass through as defined in the Definitions relating to Pretreatment section of the instructions (see page 13)?

☐ Yes ☐ No

If yes, identify the date(s), duration, pollutants passing through the treatment plant, and probable cause(s) and possible source(s) of each pass through event. Include the names of the IU(s) that may have caused the pass through. Submit an attachment if necessary.

Attachment: _____

d. Does your POTW have, or is it required to develop, an approved pretreatment program?

☐ Yes ☐ No

If **yes**, answer all questions in Item 2, but skip Item 3.

If **no**, skip Item 2 and answer all questions in Item 3 for each significant industrial user and categorical industrial user.

2. POTWS WITH APPROVED PROGRAMS OR THOSE REQUIRED TO DEVELOP A PROGRAM (Instructions, Pages 85-86)

a. Have there been any substantial modifications to the POTW's approved pretreatment program that have not been submitted to the Approval Authority (TCEQ) for approval according to 40 CFR §403.18?

☐ Yes ☐ No

If yes, identify on a separate attachment all substantial modifications that have not been submitted to the TCEQ, including the purpose of the modification.

Attachment: _____

b. Have there been any nonsubstantial modifications to the POTW's approved pretreatment program that have not been submitted to the Approval Authority (TCEQ)?

☐ Yes ☐ No

If yes, identify on a separate attachment all nonsubstantial modifications that have not been submitted to the TCEQ, including the purpose of the modification.

Attachment: _____

c. Effluent Parameters above the minimum analytical level (MAL).

List all parameters measured above the MAL in the POTW's effluent monitoring during the last three years.

Effluent Parameters Measured Above the MAL

Pollutant	Concentration	MAL	Units	Date

d. Has any SIU, CIU, or other IU caused or contributed to any other problems (excluding interference or pass through) at your POTW in the past three years?

☐ Yes ☐ No

If yes, provide a description of each episode, including date(s), duration, description of problems, and probable pollutants. Include the name(s) of the SIU(s)/CIU(s)/other IU(s) that may have caused or contributed to any of the problems.

3. SIGNIFICANT INDUSTRIAL USER AND CATEGORICAL INDUSTRIAL USER INFORMATION (Instructions, Pages 86-87)

a. Company Name: _____ SIC Code: _____

Telephone number: _____ Fax number: _____

Contact name: _____

Street No.: _____ Street name: _____ Street type: _____

City: _____ State: _____ Zip Code: _____

b. Describe the industrial processes or other activities that affect or contribute to the SIU(s) or CIU(s) discharge (i.e., process and non-process wastewater):

c. Provide a description of the principal products(s) or service(s) performed:

d. Flow rate information

Flow rate information

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

e. Pretreatment Standards

Is the SIU or CIU subject to technology-based local limits as defined in the application instructions?

☐ Yes ☐ No

Is the SIU subject to categorical pretreatment standards?

☐ Yes ☐ No

If the SIU is subject to categorical pretreatment standards, provide the category and subcategory or subcategories:

SIUs Subject To Categorical Pretreatment Standards

Category in 40 CFR	Subcategory in 40 CFR	Subcategory in 40 CFR	Subcategory in 40 CFR	Subcategory in 40 CFR

f. Has the SIU or CIU caused or contributed to any problem(s) (e.g., interferences, pass through, odors, corrosion, blockages) at your POTW in the past three years?

☐ Yes ☐ No

If **yes**, provide a description of each episode, including dates, duration, description of problems, and probable pollutants, and include the name(s) of the SIU(s)/CIU(s) that may have caused or contributed to the problem(s).

WORKSHEET 7.0
STORMWATER RUNOFF

This worksheet is required for all TPDES permit applications requesting individual permit coverage for discharges of stormwater runoff.

1. APPLICABILITY (Instructions, Page 88)

Do discharges from any of the proposed or existing outfalls consist of stormwater runoff only or stormwater runoff and any of the listed non-stormwater discharges on page 88 of the Instructions?

☐ Yes ☐ No

If **yes**, proceed as directed.

If **no**, stop here.

2. STORMWATER OUTFALL COVERAGE (Instructions, Page 89)

Indicate by a check mark which type of authorization covers or is proposed to cover discharges from each stormwater outfall.

Authorization coverage

Outfall	Authorized Under MSGP	Authorized Under Individual Permit

If you have indicated that **all** existing or proposed stormwater outfalls are authorized under the MSGP, **stop here.**

If you have indicated that you are seeking authorization for any stormwater outfall under an individual permit, **proceed as directed**.

The following information **is required** for each outfall that discharges stormwater for which you are seeking individual authorization under this permit application.

3. SITE MAP (Instructions, Page 89)

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

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

Indicate by checkmark that all the above information was provided on the facility site map(s).

Attachment: _____

4. FACILITY/SITE INFORMATION (Instructions, Pages 89-90)

a. Provide the area of impervious surface and the total area drained by each outfall that discharges stormwater for which you are seeking individual authorization under this permit application.

Impervious Surfaces

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

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

Wettest month: _____

Average rainfall for wettest month (total inches): _____

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

Source: _____

c. Provide an inventory, or list, of materials currently handled at the facility that may be exposed to precipitation.

d. Provide narrative descriptions of the industrial processes and activities involving the materials in the above-listed inventory that occur outdoors or in some manner that may result in exposure of the materials to precipitation or runoff.

e. Describe any best management practices and controls that you are using to prevent or effectively reduce pollution in stormwater discharges from the facility.

5. POLLUTANT ANALYSIS (Instructions, Pages 90-92)

a. Complete Table 17 as directed on page 90 of the Instructions.

Table 17 Pollutant Analysis for Outfall No. _____

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

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

b. Complete Table 18 as directed on pages 90-92 of the Instructions.

Table 18 Pollutant Analysis for Outfall No. _____

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

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

6. STORM EVENT DATA (Instructions, Page 92)

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

Date of storm event: _____

Duration of storm event (minutes): _____

Total rainfall during storm event (inches): _____

Number of hours between beginning of storm measured and end of previous measurable rain event (hours): _____

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

Total stormwater flow from rain event (gallons): _____

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

WORKSHEET 8.0
AQUACULTURE

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

1. FACILITY/SITE INFORMATION (Instructions, Pages 93-94)

a. Describe the production ponds, raceways, and fabricated tanks at the facility:

Production Pond Descriptions:

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

Total surface area of all ponds: _____

Raceway Descriptions:

Number of Raceways	Dimensions (include units)

Fabricated Tank Descriptions:

Number of Tanks	Dimensions (include units)

b. Do you have a TPWD-approved emergency plan?

☐ Yes ☐ No

c. Do you have an aquatic plant transplant authorization?

☐ Yes ☐ No

If **yes**, please provide a copy of the authorization letter.

Attachment: _____

d. How many aquaculture facilities are located within a 25-mile radius of this facility?

2. SPECIES IDENTIFICATION (Instructions, Page 94)

Identify each species being raised, the source, origin, and the disease status of the stock. If applicable, identify and attach copies of current relevant authorizations or permits that authorize the species.

Stock Species Information

Species	Source of Stock	Origin of Stock	Disease Status	Authorizations

3. STOCK MANAGEMENT PLAN (Instructions, Pages 94-95)

Provide a detailed stock management plan including all information required on pages 94-95 of the Instructions. Provide an attachment if necessary (and include the attachment number).

Attachment: _____

4. WATER TREATMENT AND DISCHARGE DESCRIPTION (Instructions, Page 95)

Provide a detailed description of the discharge practices and water treatment process including all information required on page 95 of the Instructions. Provide an attachment if necessary (and include the attachment number).

Attachment: _____

5. SOLID WASTE MANAGEMENT (Instructions, Page 95)

Describe solid waste-disposal practices including all information required on page 95 of the Instructions. Provide an attachment if necessary (and include the attachment number).

Attachment: _____

6. SITE ASSESSMENT REPORT AND SENSITIVE HABITAT REQUIREMENTS (Instructions, Pages 96-97)

Information in this section must be provided only by new and expanding commercial shrimp facilities located within the coastal zone.

Attach a detailed site assessment report including the following.

- Facility location
- Flushing rate
- Reefs
- Endangered or threatened species or species of concern
- Spawning
- Nesting
- Bird roosts
- Recreational use
- Nursery habitat
- Discharge characterization

Attachment: _____

WORKSHEET 9.0
CLASS V INJECTION WELL INVENTORY/AUTHORIZATION FORM

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

Reg. No. 5

SECTION I GENERAL INFORMATION

Provide the information in Items 1 through 8 (Instructions, Page 99)

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

SECTION II PROPOSED DOWN HOLE DESIGN

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

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

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

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

Proposed System Information	
12. System(s) Dimensions	13. System(s) Construction

SECTION IV SITE HYDROGEOLOGICAL AND INJECTION ZONE DATA

Provide the information in Items 14 through 31

Site Hydrogeological and Injection Zone Data
14. Name of Contaminated Aquifer
15. Receiving Formation Name of Injection Zone
16. Well/Trench Total Depth
17. Surface Elevation
18. Depth to Groundwater
19. Injection Zone Depth
20. Injection Zone vertically isolated geologically? ☐ Yes ☐ No Impervious Strata between Injection Zone and nearest Underground Source of Drinking Water Name: Thickness:
21. Provide a list of contaminants and the levels (ppm) in contaminated aquifer Attach as Attachment E

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

SECTION V SITE HISTORY

Provide the information in Items 32 through 35

Site History
32. Type of Facility
33. Contamination Dates
34. Original Contamination (VOCs, TPH, BTEX, etc.) and Concentrations Attach as Attachment J
35. Previous Remediation Attach results of any previous remediation as Attachment K

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

CLASS V INJECTION WELL DESIGNATIONS

5A07 Heat Pump/AC return (IW used for groundwater to heat or cool buildings)

5A19 Industrial Cooling Water Return Flow (IW used to cool industrial process equipment)

5B22 Salt Water Intrusion Barrier (IW used to inject fluids to prevent the intrusion of salt water into an aquifer)

5D02 Stormwater Drainage (IW designed for the disposal of rain water)

5D04 Industrial Stormwater Drainage Wells (IW designed for the disposal of rain water associated with industrial facilities)

5F01 Agricultural Drainage (IW that receive agricultural runoff)

5R21 Aquifer Recharge (IW used to inject fluids to recharge an aquifer)

5S23 Subsidence Control Wells (IW used to control land subsidence caused by groundwater withdrawal)

5W09 Untreated Sewage

5W10 Large Capacity Cesspools (Cesspools that are designed for 5,000 gpd or greater)

5W11 Large Capacity Septic systems (Septic systems designed for 5,000 gpd or greater)

5W12 WTTP disposal

5W20 Industrial Process Waste-disposal Wells

5W31 Septic System (Well Disposal method)

5W32 Septic System Drainfield Disposal

5X13 Mine Backfill (IW used to control subsidence, dispose of mining byproducts, or fill sections of a mine)

5X25 Experimental Wells (Pilot Test) (IW used to test new technologies or tracer dye studies)

5X26 Aquifer Remediation (IW used to clean up, treat, or prevent contamination of a USDW)

5X27 Other Wells

5X28 Motor Vehicle Waste-disposal Wells (IW used to dispose of waste from a motor vehicle site - These are currently banned)

5X29 Abandoned Drinking Water Wells (waste disposal)

WORKSHEET 10.0
QUARRIES IN THE JOHN GRAVES SCENIC RIVERWAY

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

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

1. EXCLUSIONS (Instructions, Pages 100-101)

Is this a municipal solid waste facility?

☐ Yes ☐ No

Has this quarry been in operation since January 1, 1994 without cessation of operation for more than 30 consecutive days and under the same ownership?

☐ Yes ☐ No

Is this a coal mine?

☐ Yes ☐ No

Is this a facility mining clay and shale for use in manufacturing structural clay products?

☐ Yes ☐ No

If **yes** to any of the above questions, **stop here**. You are required to maintain acceptable documentation, as outlined in 30 TAC §311.72(c), at the facility to demonstrate the exclusion(s).

2. LOCATION OF THE QUARRY (Instructions, Page 101)

Indicate by a check mark the distance between the quarry and the nearest navigable water body.

☐ < 200 feet

☐ 200 feet – 1,500 feet

☐ 1,500 feet – 1 mile

☐ > 1 mile

Note that the construction or operation of any new quarry or expansion of any existing quarry **is prohibited** within 200 feet of any water body located within a water quality protection area in the John Graves Scenic Riverway.

3. ADDITIONAL APPLICATION REQUIREMENTS (Instructions, Pages 101-102)

Use the table below to determine which additional application requirements apply to your facility, based on distance between the quarry and the nearest waterway.

Additional Application Requirements

Application Requirement	200 feet – 1,500 feet	1,500 feet – 1 mile	> 1 mile
Restoration Plan	Yes	Yes	Yes
Financial Assurance for Restoration	Yes	Yes	Yes
Technical Demonstration	Yes	Not required	Not required
Reclamation Plan	Yes	Not required	Not required
Financial Assurance for Reclamation	Yes	Not required	Not required

a. Restoration Plan

The Restoration Plan must address each of the following items as required by *30 TAC §311.76*:

- Certified by a licensed Texas professional engineer or a licensed Texas professional geoscientist, within the appropriate area or discipline
- Identifies receiving waters at risk of an unauthorized discharge from the quarry and includes a proposed plan of action for restoration
- Describes the process(es) used in documenting existing physical, chemical, or biological background conditions of each of the receiving waters
- Provides a schedule for updating background conditions, as appropriate
- Identifies the goals and objectives of potential restoration actions
- Provides a reasonable range of restoration alternatives and identifies the preferred restoration alternative
- Describes the process for monitoring the effectiveness of the preferred restoration action. This includes identifying performance criteria used to determine the success of the restoration or need for interim site stabilization.
- Identifies a process for public involvement in the selection of the restoration alternative
- Provides a detailed cost estimate of the maximum probable costs required to complete a restoration action based on the costs to a third party conducting the action without a financial interest or ownership in the quarry

b. Financial Assurance for Restoration

Indicate the amount of financial assurance provided and the financial assurance mechanism used.

Amount of Financial Assurance ($): _____

Mechanism: _____

c. Technical Demonstration

The Technical Demonstration must address/include each of the following items as required by *30 TAC §311.77*:

- Certification by a licensed Texas professional engineer or a licensed Texas professional geoscientist, within the appropriate area or discipline
- A time schedule for the quarry from initiation to termination of operations, including reclamation
- A detailed description of the type of quarrying to be conducted and the processes/methods employed
- A geological description of the quarry area, including the material deposit: type, geographical extent, depth, and volume; and a description of the general area geology
- A detailed description of any other operations on-site, include raw-material processing and secondary products processing
- A topographic map representing the quarry operation and all of the following within the boundaries of the quarry
  - water bodies
  - existing and proposed roads including quarry access roads
  - existing and proposed railroads
  - the 100 year floodplain boundaries
  - structures
  - the location of all know wells including water wells, oil wells, and unplugged and abandoned wells
  - active, post, and reclaimed quarry areas
  - buffer area
  - raw material, intermediate material, final product, waste product, byproduct, or ancillary material storage and processing areas
  - chemical and fuel storage areas
  - vehicle/equipment maintenance, cleaning, and fueling areas
  - vehicle/equipment loading and unloading areas
  - baghouses and other air treatment units exposed to precipitation
  - waste-disposal areas
- Surface Water Drainage and Water Accumulation Plan (SWDAP) that
  - describes the use and monitoring of structural controls and best management practices designed to control erosion, siltation, and runoff
  - provides a topographic map, at a scale appropriate to represent the quarry operation and all of the following within the boundaries of the quarry
    - the location of each process wastewater and stormwater outfall
    - an outline of the drainage area that contributes stormwater to each outfall
    - treatment, detention, and water storage tanks and ponds
    - structural controls for managing stormwater and process wastewater

        - physical features of the site that would influence stormwater runoff or contribute a dry weather flow
    - Best Available Technology Evaluation (BATE) that
        - assesses the use of structural controls and best management practices
        - evaluates performance criteria outlined at *30 TAC §311.79* and *§311.80*
        - includes structural control design and construction that is certified by a licensed Texas professional engineer. Design and construction plan/specification must be maintained on site.
    - A procedure and schedule for reviewing the Technical Demonstration for consistency with quarry operations and site conditions and effectiveness in controlling erosion, siltation, and runoff.

d. Reclamation Plan

The Reclamation Plan must address/include each of the following items as required by *30 TAC §311.78*:

- Certification by a licensed Texas professional engineer or a licensed Texas professional geoscientist, within the appropriate area or discipline
- A description of the proposed use for the disturbed area following reclamation
- A site-specific standard for reclamation appropriate to the end use that addresses the following items:
    - removal or final stabilization of all raw material, intermediate material, final product, waste product, byproduct, and ancillary material
    - removal of waste or closure of all waste-disposal areas
    - removal of structures, where appropriate
    - removal and reclamation of all temporary roads and railroads
    - backfilling, regarding, and recontouring
    - slope stability for remaining highwalls and detention ponds
    - revegetation of the reclaimed area giving consideration to species diversity and the use of native species
    - establishment of wildlife habitat
    - establishment of drainage patterns
    - establishments of permanent control structures, where necessary, to address erosion, siltation, and runoff from post quarrying and reclaimed areas
    - removal of all equipment
- A description of how reclamation will be conducted and a timetable for the completion of reclamation activities

e. Financial Assurance for Reclamation

Indicate the amount of financial assurance provided and the financial assurance mechanism used.

Amount of Financial Assurance ($): _____

Mechanism: _____

WORKSHEET 11.0
COOLING WATER INTAKE STRUCTURES

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

Complete this worksheet for each cooling water intake structure that the facility uses and proposes to use.

1. GENERAL COOLING WATER INTAKE INFORMATION (Instructions, Page 103)

a. Is the facility a point source that uses or proposes to use a cooling water intake structure that withdraws water from waters of the United States?

☐ Yes ☐ No

If no to the above question, stop here.

If yes, please identify the owner and operator of the cooling water intake structure and answer questions 1 and 2 below:

Owner: _____

Operator: _____

1. Are the owner and operator of the cooling water intake structure(s) an entity other than the facility applying for this TPDES permit?

   ☐ Yes ☐ No

2. Do the owner and operator of the cooling water intake structure(s) provide potable water to residential populations?

   ☐ Yes ☐ No

   If the answer is **yes** to both a.1 and a.2, **stop here**.

   If the answer is **no** to either a.1 or a.2, **continue** to the next question.

b. Does the facility have at least one cooling water intake structure that uses ≥25% of the total water withdrawn for cooling purposes (average monthly basis)?

☐ Yes ☐ No

If **no** to the above question, **stop here**.

If **yes**, **continue** to the next question.

c. Does the facility have a design intake flow of ≥2 MGD?

☐ Yes ☐ No

If **no** to the above question, **stop here**.

If **yes**, provide an intake structure identification number below and **continue** to Section 2 of this worksheet.

Intake Structure No.: _____

2. PHASE I FACILITIES (Instructions, Pages 103-104)

a. Application Requirements (*see 40 CFR §122.21(r)*)

Submit the following required information as an attachment to TPDES permit application, and indicate the attachment number in the space provided.

Attachment: _____

1. Source water physical data – *40 CFR §122.21(r)(2)* [except *40 CFR §122.21(r)(2)(iv)*]
2. Cooling water intake structure data – *40 CFR §122.21(r)(3)*
3. Source water baseline biological characterization data – *40 CFR §122.21(r)(4)* [except *40 CFR §§122.21(r)(4)(ix), (r)(4)(x), (r)(4)(xi)*, and *(r)(4)(xii)*]

b. Compliance Track Selection

Indicate with a checkmark the compliance track selected for this facility.

☐ Track I, facilities withdrawing >10 MGD

☐ Track I, facilities withdrawing >2 MGD but <10 MGD

☐ Track II

c. Phase I Compliance Information – *40 CFR §125.84*

Provide the appropriate information according to the compliance track selection made in Section 2.b above.

Track I

- Flow reduction information* **Attachment:** _____
- Velocity information **Attachment:** _____
- Source water body flow information **Attachment:** _____
- Design and construction technology plan** **Attachment:** _____

*Not required for facilities withdrawing >2 MGD but <10 MGD
**This information is only required under specific conditions. See page 104 of the Instructions.

Track II

- Source water body flow information **Attachment:** _____
- Source water biological study **Attachment:** _____
- Evaluation of potential cooling water intake structure effects **Attachment:** _____
- Verification monitoring plan **Attachment:** _____

Intake Structure No.: _____

3. PHASE II FACILITIES (Instructions, Page 105)

a. Waiver Request – *40 CFR §125.95(a)(3)*

The application requirements in Item 3.c. below may be waived if the intake is located in a manmade lake or reservoir and the fisheries are stocked and managed by a State or Federal natural resources agency or the equivalent. This waiver will not be granted if there are any federally-listed threatened or endangered species, or if any designated critical habitats are present or may be present in the action area.

Is the facility requesting a waiver of application requirements under *40 CFR §122.21(r)* in accordance with *40 CFR §125.95(a)(3)*?

☐ Yes ☐ No

By checking **yes** the facility agrees to submit supporting documentation as an attachment with the application that demonstrates that the lake or reservoir is manmade, and is stocked by a State or Federal natural resources agency or the equivalent.

Attachment: _____

b. Alternate Submittal Schedule

The following application requirements in Item 3.c. may be submitted when applying for a subsequent permit if requested in accordance with *40 CFR §125.95(a)(2)*. This option is unavailable for new units at existing facilities.

Is the facility requesting an alternate submittal schedule?

☐ Yes ☐ No

If **yes**, the facility agrees to submit documentation as an attachment to be submitted with the application, demonstrating that the facility could not develop the required information by the applicable date for submission.

Attachment: _____

c. Application Requirements – *40 CFR §122.21(r)*

Submit the following information, as applicable to the intake structure, as an attachment to TPDES permit application, and indicate the attachment number in the space provided. Refer to the specified portion(s) of *40 CFR §122.21* to determine which information is required.

Attachment: _____

1. Source water physical data – *40 CFR §122.21(r)(2)*
2. Cooling water intake structure data – *40 CFR §122.21(r)(3)*
3. Source water baseline biological characterization data – *40 CFR §122.21(4)*
4. Cooling water system data – *40 CFR §122.21(5)*

Intake Structure No.: _____

5. Chosen method(s) of compliance with impingement mortality standard – *40 CFR §122.21(6)*
6. Entrainment performance studies – *40 CFR §122.21(7)*
7. Operational status – *40 CFR §122.21(8)*
8. Entrainment characterization study – *40 CFR §122.21(r)(9)*
9. Comprehensive technical feasibility and cost evaluation study – *40 CFR §122.21(r)(10)*
10. Benefits valuation study – *40 CFR §122.21(r)(11)*
11. Non-water quality environmental and other impacts study – *40 CFR §122.21(r)(12)*
12. Peer review – *40 CFR §122.21(r)(13)*
13. New units – *40 CFR §122.21(r)(14)*
14. All facilities – Submit with the attachment all information received as a result of any communication with a Field Office of the Fish and Wildlife Service and/or Regional Office of the Nation Marine Fisheries Service.

Intake Structure No.: _____