TECHNICAL REPORT 1.0 - INDUSTRIAL

THE FOLLOWING IS REQUIRED FOR ALL APPLICATIONS, RENEWAL, NEW, AND AMENDMENT

1. FACILITY/SITE INFORMATION (Instructions, page 24)

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.

Raw Materials	Intermediate Products	Final Products

e. Indicate by a check mark that an attached facility map with the following information was provided with the application:

_____ 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 and impoundments.

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 there be discharge of fill material into a water in the state for construction of the proposed outfall structure? _____ Yes _____ No

If **no,** proceed to Item No. 2. If **yes**, has the applicant applied for a U.S. 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 25)

a. List any physical, chemical, and/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 discharge point.

b. ___ Indicate by a check mark that an attached flow schematic with a water balance was provided with the application 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 25-27)

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(f)** for **new or proposed** impoundments. If **no**, proceed to Item No. 4.

a. Provide the following information in the table provided:

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

Discharge Point: If a discharge occurs from the impoundments, designate the outfall associated with the impoundment.

Liner Information: 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(s), freeboard, surface area, and storage volume 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 Table

	Pond # ____	**Pond # ____**	**Pond # ____**	**Pond # ____**	**Pond # ____**
Designation					
(T) (D) (C) or (E)					
Discharge Point					
Outfall Number					
Liner Information					
Liner Type (C) (I) or (S)					
Alt. Liner Attachment Reference					
Dimensions					
Length (feet)	_____ft	_____ft	_____ft	_____ft	_____ft
Width (feet)	_____ft	_____ft	_____ft	_____ft	_____ft
Depth from Water Surface	_____ft	_____ft	_____ft	_____ft	_____ft
Depth from Nat. Ground Level	___avg ___max	___avg ___max	___avg ___max	___avg ___max	___avg ___max
Freeboard (feet)	_____ft	_____ft	_____ft	_____ft	_____ft
Surface Area (acres)	_____ acres	_____ acres	_____ acres	_____ acres	_____ acres
Storage Capacity (gallons)	_____ gal.	_____ gal.	_____ gal.	_____ gal.	_____ gal.

	Pond # ____	**Pond # ____**	**Pond # ____**	**Pond # ____**	**Pond # ____**
Designation					
(T) (D) (C) or (E)					
Discharge Point					
Outfall Number					
Liner Information					
Liner Type (C) (I) or (S)					
Alt. Liner Attachment Reference					
Dimensions					
Length (feet)	_____ft	_____ft	_____ft	_____ft	_____ft
Width (feet)	_____ft	_____ft	_____ft	_____ft	_____ft
Depth from Water Surface	_____ft	_____ft	_____ft	_____ft	_____ft
Depth from Nat. Ground Level	___avg ___max	___avg ___max	___avg ___max	___avg ___max	___avg ___max
Freeboard (feet)	_____ft	_____ft	_____ft	_____ft	_____ft
Surface Area (acres)	_____ acres	_____ acres	_____ acres	_____ acres	_____ acres
Storage Capacity (gallons)	_____ gal.	_____ gal.	_____ gal.	_____ gal.	_____ gal.

THE FOLLOWING ITEMS ARE REQUIRED ONLY FOR NEW OR PROPOSED IMPOUNDMENTS.

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

(1) _____ Synthetic/plastic/rubber liner data
(2) _____ In-situ clay liner data

Attachment: _____

c. Are there any leak detection systems or ground water monitoring wells in place or planned? ____Yes _____ No

_____ If **yes**, indicate by a check mark that a separate attachment was provided with the leak detection system information for each pond and/or ground water monitoring well data.

Attachment: _____

d. Is the bottom of the pond above the seasonal high water table in the most shallow water bearing zone?
_____ Yes _____ No

_____ If **no**, indicate by a check mark that additional information was provided describing the depth of the seasonal high water table in the most shallow water 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.

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

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

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

For TLAP permit applications: _____ Indicate by a check mark that the new or proposed impoundment(s) and the land application disposal area are located in the same general area and the information for this item is provided in Worksheet 3.0 (item 8).

f. _____ Indicate by a check mark if any data was provided with the application pertaining to the ground water, soils, geology, etc. used to assess the potential for migration of wastes from the impoundments and/or the potential for contamination of ground water or surface water.

4. OUTFALL/DISPOSAL METHOD INFORMATION (Instructions, pages 27-28)

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 (e.g. evaporation pond, application area) in the space provided for "Outfall" designation (e.g. "E1" for evaporation pond 1, "I2" for irrigation area No. 2, etc.).

OUTFALL: _____

Latitude			Longitude			Location Description	
Permitted Flow (MGD)			**Proposed Flow (MGD)**				
Dly Avg	**Dly Max**		**Dly Avg**	**Dly Max**		**Discharge Duration**	
						_____ (hrs./day) _____ (days/mo.) _____(mo./year)	
____ **Pumped** ____ **Gravity**			**Measurement Device:**_____			____**Intermittent** ____**Seasonal** ____**Continuous**	
Contributing Wastestreams:						**Volume (MGD)**	**% of Total Flow**

OUTFALL: _____

Latitude			Longitude			Location Description	
Permitted Flow (MGD)			**Proposed Flow (MGD)**				
Dly Avg	**Dly Max**		**Dly Avg**	**Dly Max**		**Discharge Duration**	
						_____ (hrs./day) _____ (days/mo.) _____(mo./year)	
____ **Pumped** ____ **Gravity**			**Measurement Device:**_____			____**Intermittent** ____**Seasonal** ____**Continuous**	
Contributing Wastestreams:						**Volume (MGD)**	**% of Total Flow**

OUTFALL: _____

Latitude			Longitude			Location Description		
Permitted Flow (MGD)			**Proposed Flow (MGD)**					
Dly Avg	**Dly Max**		**Dly Avg**	**Dly Max**		**Discharge Duration**		
						_____ (hrs./day) _____ (days/mo.) _____(mo./year)		
____ **Pumped** ____ **Gravity**			**Measurement Device:**_____			____**Intermittent** ____**Seasonal** ____**Continuous**		
Contributing Wastestreams:						**Volume (MGD)**	**% of Total Flow**	

OUTFALL: _____

Latitude			Longitude			Location Description		
Permitted Flow (MGD)			**Proposed Flow (MGD)**					
Dly Avg	**Dly Max**		**Dly Avg**	**Dly Max**		**Discharge Duration**		
						_____ (hrs./day) _____ (days/mo.) _____(mo./year)		
____ **Pumped** ____ **Gravity**			**Measurement Device:**_____			____**Intermittent** ____**Seasonal** ____**Continuous**		
Contributing Wastestreams:						**Volume (MGD)**	**% of Total Flow**	

5. BLOWDOWN AND ONCE-THROUGH COOLING WATER DISCHARGES (Instructions, page 28)

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**, indicate with a check mark that the appropriate MSDS with the following information for each chemical additive was submitted with the application.

____ Manufacturers Product Identification Number.
____ Product use. (e.g., biocide, fungicide, corrosion inhibitor, etc.)
____ Chemical Composition including Chemical Abstracts System (CAS) number for each ingredient.
____ Classify product as non-persistent, persistent, or bioaccumulative.
____ Product or active ingredient half-life.
____ Frequency of product use (e.g., 2 hr/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 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

	Number of Units	**Daily Avg. Blowdown**	**Daily Max Blowdown**
Cooling Towers	_____ cooling towers	Daily Avg: _____ gallons/day	Daily Max: _____ gallons/day
Boilers	_____ boilers	Daily Avg: _____ gallons/day	Daily Max: _____ gallons/day

6. STORM WATER MANAGEMENT (Instructions, pages 28-29)

Are there any existing or proposed outfalls which discharge storm water runoff commingled with other wastestreams? ____ Yes ____ No. If **yes,** provide the following information. If **no**, proceed to Item No. 7.

a. Provide a brief narrative description of 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/OR SEPTAGE MANAGEMENT AND DISPOSAL (Instructions, page 29)

a. Please check the appropriate method(s) of domestic sewage and domestic sewage sludge treatment/disposal and complete Attachment F if directed.

_____ Domestic sewage is not generated on-site. **PROCEED TO ITEM NO. 8.**

_____ Both domestic and industrial treatment sludge **ARE commingled** prior to use or disposal. **PROCEED TO ITEM NO. 8.**

_____ 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.**

_____ If your facility is a POTW, **COMPLETE WORKSHEET 5.0 OF THIS APPLICATION.**

_____ 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 and/or disposal. **COMPLETE ITEM NO. 7.B.**

_____ Domestic sewage is disposed of by an on-site septic tank. **COMPLETE ITEM 7.B.**

_____ Other. Please provide a detailed description below.

b. Provide the name and TCEQ, NPDES, and/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.

Plant/Hauler Name	**Permit/Registration No.**

8. IMPROVEMENTS OR COMPLIANCE/ENFORCEMENT REQUIREMENTS (Instructions, page 29)

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 30)

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 (3) 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 and/or EPA.

10. OFF-SITE/THIRD PARTY WASTES (Instructions, page 30)

Do you receive wastes from off-site sources for treatment in your facility, disposal on-site via land application, and/or discharge via a permitted outfall? ____ Yes ____ No

If **no**, proceed to Item No. 11. If **yes**, proceed as directed.

a. Indicate with a check mark that a detailed attachment with the following information was provided with the application: **Attachment:** _____

____ List of wastes received
____ Characterization of wastes received
____ Volumes of each waste received
____ Info. 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.

b. Is wastewater from a TCEQ, NPDES, and/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, and/or TPDES permit number of the contributing facility and a copy of any agreements and/or contracts relating to this activity.

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 30)

Are radioactive materials mined, used, stored, or processed at this facility? ____ Yes ____ No

If **yes,** Provide a list of the materials and the results of one analysis of your effluent in picocuries per liter (pCi/L) for all radioactive parameters which may be present.

Radioactive Materials	**Conc. (pCi/L)**

THE FOLLOWING ITEMS ARE ONLY REQUIRED FOR EXISTING PERMITTED FACILITIES.

12. MAJOR AMENDMENT REQUESTS (Instructions, pages 30-31)

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 31)

Are you requesting any minor modifications to the permit? ____Yes ____ No **Note:** see the instructions for an exclusive list of changes considered as minor modifications.

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

14. MINOR AMENDMENT REQUESTS (Instructions, page 31)

Are you requesting any minor amendments to the permit? ____Yes ____ No

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

WORKSHEETS
TO THE INDUSTRIAL WASTEWATER PERMIT APPLICATION TECHNICAL REPORT

Please review the worksheet requirements in the instructions and indicate by checking either yes or no which worksheets are required, completed, and submitted with the technical report. Worksheets that are not applicable do not need to be submitted with the technical report.

WORKSHEET	COMPLETED AND SUBMITTED WITH THE TECHNICAL REPORT:	
	YES	NO
1.0: EPA EFFLUENT CATEGORICAL GUIDELINES		
2.0: POLLUTANT ANALYSES REQUIREMENTS		
3.0: LAND DISPOSAL OF EFFLUENT		
3.1: SURFACE LAND DISPOSAL OF EFFLUENT		
3.2: SUBSURFACE LAND DISPOSAL OF EFFLUENT		
3.3: SUBSURFACE AREA DRIP DISPERSAL SYSTEM LAND DISPOSAL OF EFFLUENT		
4.0: RECEIVING WATERS		
4.1: STREAM PHYSICAL CHARACTERISTICS WORKSHEET		
5.0: SEWAGE SLUDGE MANAGEMENT AND DISPOSAL		
6.0: INDUSTRIAL WASTE CONTRIBUTION		
7.0: STORM WATER RUNOFF		
8.0: AQUACULTURE		
9.0: CLASS V INJECTION WELL		
10.0: QUARRIES IN THE JOHN GRAVES SCENIC RIVERWAY		

WORKSHEET 1.0 - EPA EFFLUENT CATEGORICAL GUIDELINES

REQUIRED FOR ALL APPLICATIONS FOR TPDES PERMITS FOR DISCHARGES OF WASTEWATERS SUBJECT TO EPA EFFLUENT LIMITATION GUIDELINES.

1. CATEGORICAL INDUSTRIES (Instructions, pages 34-35)

Is your facility subject to any of the 40 CFR effluent guidelines outlined in Table 1? _____ Yes _____ No

If **yes**, provide the appropriate information in the table below. If **no**, this worksheet is not required.

Industry	CFR

2. PRODUCTION/PROCESS DATA (Instructions, page 35)

a. Production data: Provide the appropriate data for effluent guidelines with production based effluent limitations.

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.

Subcategory	% of total production	Appendix A and B	
		Metal	Process

c. Refineries (40 CFR Part 419): Provide the applicable subcategory and a brief justification for each.

3. PROCESS/NON-PROCESS WASTEWATER FLOWS: Provide a breakdown of process wastewater flow(s) and non-process wastewater flow(s) as directed. (Instructions, page 35)

4. NEW SOURCE DETERMINATION: Provide a list of wastewater generating processes subject to effluent guidelines and the appropriate information. (Instructions, page 35)

Process	EPA Guideline		Date Process/Construction Commenced
	Part	Subpart	

WORKSHEET 2.0 - POLLUTANT ANALYSES REQUIREMENTS

REQUIRED FOR APPLICATIONS SUBMITTED FOR A TPDES PERMIT. NOT REQUIRED FOR APPLICATIONS FOR A PERMIT TO DISPOSE OF ALL WASTEWATER BY LAND DISPOSAL OR FOR DISCHARGES SOLELY OF STORM WATER RUNOFF. (General Requirements: Instructions, Pages 36-37)

1. TABLE 1: Complete table required for all external outfalls. (Instructions, Page 37)

Outfall No.: ☐C ☐G	**Effluent Concentration (mg/l)**					
Pollutants	**Samp. 1**	**Samp. 2**	**Samp. 3**	**Samp. 4**	**Average**	
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						
Fecal Coliform						
Temperature(°F)						
pH (Standard Units; min/max)						
	Effluent Concentration (µg/l)					**MAL (µg/l)**
Total Aluminum						30
Total Antimony						60
Total Arsenic						10
Total Barium						10
Total Beryllium						5
Total Cadmium						1
Total Chromium						10
Trivalent Chromium						N/A
Hexavalent Chromium						10
Total Copper						10
Cyanide						20
Total Lead						5
Total Mercury						0.2
Total Nickel						10
Total Selenium						10
Total Silver						2.0
Total Thallium						10
Total Zinc						5

2. TABLE 2: Complete table required for all external outfalls which discharge process wastewater. Partial table required for all external outfalls with nonprocess wastewater discharges. Storm water runoff discharges commingled with other wastestreams shall complete the table as instructed (Instructions, Page 37).

Outfall No.: ☐C ☐G	**Effluent Concentration (µg/l)** (*1)					
Pollutants	**Samp. 1**	**Samp. 2**	**Samp. 3**	**Samp. 4**	**Average**	**MAL (µg/l)**
Benzene						10
Benzidine						50
Benzo(a)anthracene						10
Benzo(a)pyrene						10
Carbon Tetrachloride						10
Chlorobenzene						10
Chloroform						10
Chrysene						10
Cresols						(*2)
Dibromochloromethane						10
1,2-Dibromoethane						2
1,4-Dichlorobenzene						10
1,2-Dichloroethane						10
1,1-Dichloroethylene						10
Fluoride						500
Hexachlorobenzene						10
Hexachlorobutadiene						10
Hexachloroethane						20
Methyl Ethyl Ketone						50
Nitrobenzene						10
n-Nitrosodiethylamine						20
n-Nitroso-di-n-Butylamine						20
PCB's, Total (*3)						1
Pentachlorobenzene						20
Pentachlorophenol						50
Phenanthrene						10
Pyridine						20
1,2,4,5-Tetrachlorobenzene						20
Tetrachloroethylene						10
Trichloroethylene						10
1,1,1-Trichloroethane						10
2,4,5-Trichlorophenol						50
TTHM (Total Trihalomethanes)						10
Vinyl Chloride						10

(*1) Indicate units if different from µg/l.
(*2) MAL's for Cresols: p-Chloro-m-Cresol 10 µg/l; 4,6-Dinitro-o-Cresol 50 µg/l; p-Cresol 10 µg/l
(*3) Total of PCB-1242, PCB-1254, PCB-1221, PCB-1232, PCB-1248, PCB-1260, PCB-1016.

3. TABLE 3: Partial table (only those pollutants which are required by the conditions specified) required for each external outfall. Not required for internal outfalls. (Instructions, Page 38)

a. TRIBUTYLTIN:

Is your facility or will your proposed facility be an industrial/commercial facilities which directly disposes of wastewater from the types of operations listed below or a domestic facilities which receive 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 your facility or will your proposed facility discharge directly into saltwater receiving waters?
_____ Yes _____ No

If **yes**, provide the appropriate testing results in the table below.

TABLE 3

Outfall No.: ☐C ☐G	**Effluent Concentration (µg/l)**					
Pollutants	**Samp. 1**	**Samp. 2**	**Samp. 3**	**Samp. 4**	**Average**	**MAL (µg/l)**
Tributyltin						0.010
Enterococci						N/A

4. TABLE 4: Complete table required for all external outfalls which discharge process wastewater and other wastewaters, which may contain pesticides or herbicides, from a facility which manufactures or formulates pesticides or herbicides. Not required for internal outfalls. (Instructions, Page 38)

Does your facility manufacture or formulate pesticides or herbicides? _____ Yes _____ No
If **yes**, provide the appropriate testing results.

TABLE 4

Outfall No.: ☐C ☐G	**Effluent Concentration (µg/l)** (*1)					**MAL (µg/l)**
Pollutants	**Samp. 1**	**Samp. 2**	**Samp. 3**	**Samp. 4**	**Avg.**	
Beta-hexachlorocyclohexane						0.05
Carbaryl						5
Chlordane						0.15
Chlorpyrifos						0.05
2,4-D						10
Danitol						----
4,4'-DDD						0.1
4,4'-DDE						0.1
4,4'-DDT						0.1
Demeton						0.2
Diazinon						0.5
Dicofol						20
Dieldrin						0.1
Diuron						0.09
Endosulfan I (alpha)						0.1
Endosulfan II (beta)						0.1
Endosulfan Sulfate						0.1
Endrin						0.1
Gamma - Hexachlorocyclohexane (Lindane)						0.05
Guthion						0.10
Heptachlor						0.05
Heptachlor Epoxide						1.0
Hexachlorophene						10
Malathion						0.10
Methoxychlor						2.0
Mirex						0.2
Parathion						0.1
Toxaphene						5
2,4,5-TP (Silvex)						2

* Indicate units if different from mg/L.

5. TABLE 5: Complete table required for all external outfalls. Not required for internal outfalls. (Instructions, Page 38)

TABLE 5

Outfall No.: ☐C ☐G	Believed Present	Believed Absent	Effluent Concentration (mg/l)		
Pollutants			**Average**	**Maximum**	**No. of Samples**
Bromide					
Color(PCU)					
Nitrate-Nitrite(as N)					
Sulfide(as S)					
Sulfite(as SO_3)					
Surfactants					
Total Antimony					
Total Beryllium					
Total Boron					
Total Cobalt					
Total Iron					
Total Magnesium					
Total Molybdenum					
Total Manganese					
Total Thallium					
Total Tin					
Total Titanium					

6. TABLE 6: Indicate with a check mark any of the industrial categories applicable to your facility. If testing is required, indicate with a check mark in the box provided that the testing results for the appropriate parameters in Table B-7 are provided with the application. (Instructions, Page 39)

____N/A	GC/MS Testing Required			
	Volatile	**Acid**	**Base/Neutral**	**Pesticides**
____ Adhesives and Sealants	Yes ☐	Yes ☐	Yes ☐	No
____ Aluminum Forming	Yes ☐	Yes ☐	Yes ☐	No
____ Auto and Other Laundries	Yes ☐	Yes ☐	Yes ☐	Yes ☐
____ Battery Manufacturing	Yes ☐	No	Yes ☐	No
____ Coal Mining	No	No	No	No
____ Coil Coating	Yes ☐	Yes ☐	Yes ☐	No
____ Copper Forming	Yes ☐	Yes ☐	Yes ☐	No
____ Electric and Electronic Components	Yes ☐	Yes ☐	Yes ☐	Yes ☐
____ Electroplating	Yes ☐	Yes ☐	Yes ☐	No
____ Explosives Manufacturing	No	Yes ☐	Yes ☐	No
____ Foundries	Yes ☐	Yes ☐	Yes ☐	No
____ Gum and Wood Chemicals				
____Subparts A,B,C,E	Yes ☐	Yes ☐	No	No
____Subparts D,F	Yes ☐	Yes ☐	Yes ☐	No
____ Inorganic Chemicals	Yes ☐	Yes ☐	Yes ☐	No
____ Iron and Steel Manufacturing	Yes ☐	Yes ☐	Yes ☐	No
____ Leather Tanning/Finishing	Yes ☐	Yes ☐	Yes ☐	No
____ Mechanical Products Manufacturing	Yes ☐	Yes ☐	Yes ☐	No
____ Nonferrous Metals Mfg.	Yes ☐	Yes ☐	Yes ☐	Yes ☐
____ Ore Mining(Subpart B)	No	Yes ☐	No	No
____ Organic Chemicals, Plastics, and Synthetic Fibers	Yes ☐	Yes ☐	Yes ☐	Yes ☐
____ Paint and Ink Formulation	Yes ☐	Yes ☐	Yes ☐	No
____ Pesticides	Yes ☐	Yes ☐	Yes ☐	Yes ☐
____ Petroleum Refining	Yes ☐	No	No	No
____ Pharmaceutical Preparations	Yes ☐	Yes ☐	Yes ☐	No
____ Photographic Equipment and Supplies	Yes ☐	Yes ☐	Yes ☐	No
____ Plastic and Synthetic Materials Manufacturing	Yes ☐	Yes ☐	Yes ☐	Yes ☐
____ Plastic Processing	Yes ☐	No	No	No
____ Porcelain Enameling	No	No	No	No
____ Printing and Publishing	Yes ☐	Yes ☐	Yes ☐	Yes ☐
____ Pulp and Paperboard Mills				
____Subparts A	* ☐	Yes ☐	* ☐	Yes ☐
____Subparts B,C,D,R	* ☐	Yes ☐	* ☐	* ☐
____Subparts F,G,H,I,K,L,M,N,O,P	Yes ☐	Yes ☐	* ☐	* ☐
____Subparts E,Q,S,T	Yes ☐	Yes ☐	* ☐	Yes ☐
____Subparts J,U	Yes ☐	Yes ☐	Yes ☐	* ☐
____Rubber Processing	Yes ☐	Yes ☐	Yes ☐	No
____Soap and Detergent Manufacturing	Yes ☐	Yes ☐	Yes ☐	No
____ Steam Electric Power Plants	Yes ☐	Yes ☐	No	No
____ Textile Mills (Not Subpart C)	Yes ☐	Yes ☐	Yes ☐	No
____ Timber Products Processing	Yes ☐	Yes ☐	Yes ☐	Yes ☐

* Test if "believed present"

7. TABLE 7: Please complete as directed and only for those parameters specified in Table 6. Required for all external outfalls which contain process wastewater. Not required for internal outfalls. Testing may be required for types of industry not specified in Table 6 for specific parameters if believed present (Instructions, Page 39).

TABLE 7

Outfall No.: ☐C ☐G	**Effluent Concentration (µg/l) ***			
Pollutants	**Average**	**Maximum**	**No. of Samples**	**MAL (µg/l)**
VOLATILE COMPOUNDS				
Acrolein				50
Acrylonitrile				50
Benzene				10
Bromoform				10
Carbon Tetrachloride				10
Chlorobenzene				10
Chlorodibromomethane				10
Chloroethane				50
2-Chloroethylvinyl Ether				10
Chloroform				10
Dichlorobromomethane				10
1,1-Dichloroethane				10
1,2,-Dichloroethane				10
1,1-Dichloroethylene				10
1,2-Dichloropropane				10
1,3-Dichloropropylene				10
Ethylbenzene				10
Methyl Bromide				50
Methyl Chloride				50
Methylene Chloride				20
1,1,2,2-Tetrachloroethane				10
Tetrachloroethylene				10
Toluene				10
1,2-Trans-Dichloroethylene				10
1,1,1-Trichloroethane				10
1,1,2-Trichloroethane				10
Trichloroethylene				10
Vinyl Chloride				10

	Effluent Concentration (µg/l) *			
Pollutants	**Average**	**Maximum**	**No. of Samples**	**MAL (µg/l)**
ACID COMPOUNDS				
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				50
Phenol				10
2,4,6-Trichlorophenol				10
BASE/NEUTRAL COMPOUNDS				
Acenaphthene				10
Acenaphthylene				10
Anthracene				10
Benzidine				50
Benzo(a)Anthracene				10
Benzo(a)Pyrene				10
3,4-Benzofluoranthene				10
Benzo(ghi)Perylene				20
Benzo(k)Fluoranthene				10
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				10
Dibenzo(a,h)Anthracene				20
1,2-Dichlorobenzene				10
1,3-Dichlorobenzene				10
1,4-Dichlorobenzene				10
3,3-Dichlorobenzidine				50
Diethyl Phthalate				10
Dimethyl Phthalate				10
Di-n-Butyl Phthalate				10
2,4-Dinitrotoluene				10

	Effluent Concentration (µg/l) *			
Pollutants	**Average**	**Maximum**	**No. of Samples**	**MAL (µg/l)**
BASE/NEUTRAL COMPOUNDS (cont.)				
2,6-Dinitrotoluene				10
Di-n-Octyl Phthalate				10
1,2-Diphenyl Hydrazine (as Azobenzene)				20
Fluoranthene				10
Fluorene				10
Hexachlorobenzene				10
Hexachlorobutadiene				10
Hexachlorocyclopentadiene				10
Hexachloroethane				20
Indeno(1,2,3-cd)pyrene				20
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
PESTICIDES				
Aldrin				0.05
alpha-BHC				0.05
beta-BHC				0.05
gamma-BHC				0.05
delta-BHC				0.05
Chlordane				0.15
4,4,-DDT				0.1
4,4,-DDE				0.1
4,4,-DDE				0.1
Dieldrin				0.1
alpha-Endosulfan				0.1
beta-Endosulfan				0.1
Endosulfan Sulfate				0.1
Endrin				0.1
Endrin Aldehyde				0.1
Heptachlor				0.05

	Effluent Concentration (µg/l)			
Pollutants	**Average**	**Maximum**	**No. of Samples**	**MAL (µg/l)**
PESTICIDES (cont.)				
Heptachlor Epoxide				
PCB-1254				1.0
PCB-1221				1.0
PCB-1242				
PCB-1232				1.0
PCB-1248				1.0
PCB-1260				1.0
PCB-1016				1.0
Toxaphene				5.0

***** **Indicate units if different from µg/l**

8. **TABLE 8** (**DIOXINS/FURAN COMPOUNDS**): Please complete as directed. Not required for internal outfalls. (Instructions, Pages 39-40)

a. Are any of the following compounds manufactured and/or used in a process at the facility? ____ Yes ____ No

If **yes**, indicate with a check mark the compound(s) which apply 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) CAS #93-76-5
____ 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP) CAS #93-72-1
____ 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) CAS #136-25-4
____ 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel) CAS #299-84-3
____ 2,4,5-trichlorophenol (TCP) CAS #95-95-4
____ Hexachlorophene (HCP) CAS #70-30-4

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 your responded **yes** to either item **a** or **b**, complete **Table 8** as instructed.

TABLE 8

Outfall _____	☐C ☐G	**Wastewater**		**Sludge**		
Compound	**Equivalent Factors**	**Concentration (ppq)**	**Equivalents (ppq)**	**Concentration (ppt)**	**Equivalents (ppt)**	**MAL (ppq)**
2,3,7,8-TCDD	1					10.0
1,2,3,7,8-PeCDD	0.5					50.0
2,3,7,8-HxCDDs	0.1					50.0
2,3,7,8-TCDF	0.1					10.0
1,2,3,7,8-PeCDF	0.05					50.0
2,3,4,7,8-PeCDF	0.5					50.0
2,3,7,8-HxCDFs	0.1					50.0
Total						

9. **TABLE 9 (HAZARDOUS SUBSTANCES)**: Proceed complete as directed. Not required for internal outfalls. (Instructions, Pages 41)

a. Are there any pollutants listed in the instructions (page 41) believed present in the discharge?
_____ Yes _____ No

b. Are there pollutants listed in Item No. 1.d. on Page No. 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 your responded **yes** to either item, complete **Table 9** as instructed.

TABLE 9

Pollutant & CAS Number	**Average (µg/l)**	**Maximum (µg/l)**	**No. of Samples**	**Analytical Method**

WORKSHEET 3.0 - LAND DISPOSAL OF EFFLUENT

REQUIRED FOR ALL RENEWAL, AMENDMENT, AND NEW APPLICATIONS FOR A PERMIT TO DISPOSE OF WASTEWATER BY LAND DISPOSAL.

1. TYPE OF DISPOSAL SYSTEM (Instructions, Page 46)

_____ Irrigation
_____ Evaporation
_____ Evapotranspiration beds
_____ Other (describe below in detail)
_____ Subsurface Application
_____ Subsurface soils absorption
_____ Surface Application
_____ Drip irrigation system

2. LAND APPLICATION AREA: (Instructions, Page 46)

Effluent Application in GPD	Irrigation Acreage in Acres	Describe land use & indicate type(s) of crop(s)	Public Access Y/N

3. ANNUAL CROPPING PLAN: (Instructions, Page 46)

Provide the required cropping plan. Indicate by a check mark that each of the following is provided.

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

4. STORM WATER MANAGEMENT (Instructions, Pages 46-47)

a. Is storm water runoff a component of the effluent disposed of via land application? _____ Yes _____ No

b. If yes, Provide the following information:

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

c. If **no**, Provide a description of tailwater controls and storm water runon controls used for the disposal area.

5. WELL AND MAP INFORMATION (Instructions, Page 47)

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 shown on the USGS map in the following table. Attach additional pages as necessary to include all of the wells.

Well ID	Well Use	Producing?	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, then provide the proposed location of the monitoring wells or lysimeters on a site map.

6. SOIL MAP AND SOIL INFORMATION (Instructions, Pages 47-48)

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

_____ USDA Soil Survey map that indicates the area to be used for effluent disposal with the locations identified by fields and crops.
_____ Break down of acreage and percent of total acreage for each soil type.
_____ Copies of laboratory soil analyses.

7. EFFLUENT MONITORING DATA (Instructions, Page 48)

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

Provide a discussion of all persistent excursion to permitted parameters and corrective actions taken.

8. POLLUTANT ANALYSIS: Complete table required for all permit applications for the authorization of land application of effluent. (Instructions, Page 48)

Site No.: ☐C ☐G	Effluent Concentration (mg/l)					
Pollutants	**Samp. 1**	**Samp. 2**	**Samp. 3**	**Samp. 4**	**Average**	
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						
Specific Conductance (mmhos/cm)						
pH (Standard Units; min/max)						
Soluble Sodium						
Soluble Calcium						
Soluble Magnesium						
SAR						

Pollutants	Samp. 1	Samp. 2	Samp. 3	Samp. 4	Average	
	Effluent Concentration (µg/l)					MAL (µg/l)
Total Aluminum						30
Total Antimony						60
Total Arsenic						10
Total Barium						10
Total Beryllium						5
Total Boron						20
Total Cadmium						1
Total Chromium						10
Trivalent Chromium						N/A
Hexavalent Chromium						10
Total Copper						10
Cyanide						20
Total Lead						5
Total Mercury						0.2
Total Nickel						10
Total Selenium						10
Total Silver						2.0
Total Thallium						10
Total Zinc						5

WORKSHEET 3.1 - SURFACE LAND DISPOSAL OF EFFLUENT

REQUIRED FOR ALL RENEWAL, AMENDMENT, AND NEW APPLICATIONS FOR A PERMIT TO DISPOSE OF WASTEWATER BY SURFACE LAND DISPOSAL.

1. SURFACE SPRAY (Instructions, Page 49)
Complete the item that is applicable for the method of disposal being utilized.

Area under irrigation:		_____ acres	Design application rate:	_____ acre-feet/acre/year
Design application frequency:		_____ hours/day	Design Total Nitrogen	
		_____ days/week	loading rate:	_____ lbs N/acre/day
Land grade:	average:	_____ percent (%)	Irrigation efficiency:	_____ percent (%)
	maximum:	_____ percent (%)	Effluent Conductivity:	_____ mmhos/cm

Method of Application: _____

_____ Indicate by a check mark that a detailed attachment is provided with the application including an engineering report with water balance and storage volume calculations and nitrogen balance. **Attachment**:_____

2. EVAPORATION PONDS (Instructions, Page 49)

Daily average effluent flow into ponds: _____ gallons per day

_____ Indicate by a check mark that a separate engineering report with water balance and storage volume calculations was provided with the application.

3. EVAPOTRANSPIRATION BEDS (Instructions, Page 49)

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:	_____

_____ Indicate by a check mark that a separate engineering report with water balance and storage volume calculations, and description of the lining is provided with the application.

4. OVERLAND FLOW (Instructions, Page 49)

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 **and** _____ days/week

Indicate by a check mark that the necessary information is provided _____ Provide a separate engineering report with the method of application and design requirements according to 30 TAC Section 317.10.

5. EDWARDS AQUIFER RECHARGE AREA (Instructions, Page 50)

Is the facility subject to 30 TAC Chapter 213, Edwards Aquifer Rules? _____ Yes _____ No
_____ If **yes**, indicate by a check mark that a report concerning the recharge area was provided with the application.

WORKSHEET 3.2 - SUBSURFACE LAND DISPOSAL OF EFFLUENT

REQUIRED FOR ALL RENEWAL, AMENDMENT, AND NEW APPLICATIONS FOR A PERMIT TO DISPOSE OF WASTEWATER BY SUBSURFACE LAND DISPOSAL.
This worksheet does not apply to systems that meet the definition of a Subsurface Area Drip Dispersal System as defined in 30 TAC 222.

1. SUBSURFACE APPLICATION (Instructions, Page 51)**:** Check the type of system:

_____ Conventional Drainfield, Beds, or Trenches
_____ Pressure Dosing
_____ Mound System
_____ Other _____

Application area:	_____ acres	Area of drainfield:	_____ square feet
Application rate:	_____ gal/square feet/day	Depth to groundwater:	_____ feet
Area of trench:	_____ square feet	Dosing duration per area:	_____ hours
Number of beds:	_____	Dosing amount per area:	_____ inches/day
Infiltration Rate:	_____ inches/hour	Storage volume:	_____ gallons
Area of bed(s):	_____ square feet		
Soil Classification:	_____		

_____ Indicate by a check mark that a separate engineering report with all necessary information and a description of the schedule of dosing basin rotation was provided with the application.

_____ 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 Waste Permits Section as directed.

2. EDWARDS AQUIFER RECHARGE AREA (Instructions, Page 51)

Is the subsurface system located on the Edwards Aquifer Recharge Zone as mapped by the TCEQ?
_____ Yes _____ No

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

Is the subsurface system located on the Edwards Aquifer Transition Zone as mapped by the TCEQ?
_____ Yes _____ No

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

WORKSHEET 3.3 - SUBSURFACE AREA DRIP DISPERSAL SYSTEM LAND DISPOSAL OF EFFLUENT

REQUIRED FOR ALL RENEWAL, AMENDMENT, AND NEW APPLICATIONS FOR A PERMIT TO DISPOSE OF WASTEWATER BY SURFACE LAND DISPOSAL.

1. ADMINISTRATIVE QUESTIONS (Instructions, Page 52)**:**

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 c.

_____ _____

_____ _____

_____ _____

_____ _____

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

_____

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 e.

_____ _____

_____ _____

_____ _____

_____ _____

2. SUBSURFACE AREA DRIP DISPERSAL SYSTEM (Instructions, Pages 52-53)**:** Check the type of system:

_____ Subsurface Drip/Trickle Irrigation
_____ Surface drip irrigation
_____ Other _____

Application area: _____ acres 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

a. Indicate with a check whether the facility is located west of the boundary shown in 30 TAC Section 222.83 and the facility isusing a vegetative cover of non-native grasses over seeded with cool season grasses._____ If yes, then the facility may propose a hydraulic application rate not to exceed 0.1 gal/square foot/day.

Indicate whether the facility is located east of the boundary shown in 30 TAC Section 222.83 OR the facility is proposing any crop other than non-native grasses._____ If yes, than the facility must use the formula in 30 TAC Section 222.83 to calculate the maximum hydraulic application rate.

Indicate with a check mark if you plan to submit an alternative method to calculate the hydraulic application rate for approval by the executive director. _____

Hydraulic application rate: _____ gal/square foot/day
Nitrogen application rate: _____ gal/square foot/day

b. Number of doses per day: _____
Dosing duration per area: _____ hours
Rest period between doses: _____
Dosing amount per area: _____ inches/day
Number of zones: _____

If the proposed system is a surface drip irrigation system proposing to use existing native vegetation as a crop, then provide a vegetation survey by a certified arborist describing the percent canopy cover and relative percentage of major overstory and understory plant species. Indicate by a check mark the information is provided. _____

_____ Indicate by a check mark that a separate engineering report with all necessary information and a description of the schedule of dosing basin rotation was provided with the application.

_____ 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 Waste Permits Section as directed.

3. REQUIRED PLANS (Instructions, Page 53)

a. Provide a Recharge Feature Plan with all information required in 30 TAC Section 222.79. Indicate by a check mark the information is provided. _____

b. Provide a Soil Evaluation with all information required in 30 TAC Section 222.73. Indicate by a check mark the information is provided. _____

c. Provide a Site Preparation Plan with all information required in 30 TAC Section 222.75. Indicate by a check mark the information is provided. _____

d. Indicate by a check mark that soil sampling and testing has been submitted with all information required in 30 TAC Section 222.157._____

4. FLOOD AND RUN-ON PROTECTION (Instructions, Page 53)

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

Source:_____

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

Is the existing/proposed subsurface area drip dispersal system within a designated floodway? ___Yes __No

Indicate with a check that either the FEMA flood map or alternate information used to determine the floodway is included with the application___

5. EDWARDS AQUIFER RECHARGE AREA (Instructions, Page 53)

Is the subsurface area drip dispersal system located on the Edwards Aquifer Recharge Zone as mapped by the TCEQ? _____ Yes _____ No
If yes, than the subsurface area drip dispersal system may be prohibited by 30 TAC Section 213.8. Please call the Industrial Permits Team to schedule a pre-application meeting.

Is the subsurface area drip dispersal system located on the Edwards Aquifer Transition Zone as mapped by the TCEQ? _____ Yes _____ No
If yes, than the subsurface area drip dispersal system may be prohibited by 30 TAC Section 213.8. Please call the Industrial Permits Team to schedule a pre-application meeting.

WORKSHEET 4.0 - RECEIVING WATERS

THE FOLLOWING IS REQUIRED FOR ALL TPDES PERMIT APPLICATIONS

1. DOMESTIC DRINKING WATER SUPPLY (Instructions, Page 54)

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 54)

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 54)

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 2.1. **If no**, complete items 4 and 5.

4. DESCRIPTION OF IMMEDIATE RECEIVING WATERS (Instructions, Page 55)

Name of the immediate receiving waters: _____

a. Check the appropriate description of the receiving waters

_____ Man-made Channel or Ditch
_____ Stream or creek
_____ Lake or Pond
Surface area _____acres. Average depth of the entire water body _____ feet
Average depth of water body within a 500-foot radius or the discharge point _____ feet
_____ Freshwater Swamp or Marsh
_____ Tidal Stream, Bayou, or Marsh
_____ Open Bay
_____ Other: _____

If a man-made channel, ditch or stream was checked above, provide the following:

b. Check one of the following that best characterizes the area **upstream** of the discharge. For new discharges, characterize the area **downstream** of the discharge (check one).

_____ Intermittent (dry for at least one week during most years)
_____ Intermittent with Perennial Pools (enduring pools containing sufficient habitat to maintain significant aquatic life uses)
_____ Perennial (normally flowing)

Check the method used to characterize the area upstream (or downstream for new dischargers): ____ USGS flow records,_____ personal observation, _____ historical observation by adjacent landowner(s), _____ others, specify:

c. List the name(s) 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 storm water runoff during observations? _____ Yes _____ No

5. GENERAL CHARACTERISTICS OF WATER BODY (Instructions, Page 55)

a. Is the receiving water upstream of the discharges 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 evidences of (check as appropriate):

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

c. Check one of the following to best describe 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 and/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 AND WORKSHEET

THE FOLLOWING IS REQUIRED FOR NEW APPLICATIONS, MAJOR FACILITIES, AND APPLICATIONS ADDING AN OUTFALL IF 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 56-57)

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 Type at Transect Location: riffle☐, run☐, glide☐, pool☐, (check one)

Location of Transect	Water Surface Width (ft)	Stream Depths (ft) at Points Across Transect (channel bed to water surface)									

Stream Type at Transect Location: riffle☐, run☐, glide☐, pool☐, (check one)

Location of Transect	Water Surface Width (ft)	Stream Depths (ft) at Points Across Transect (channel bed to water surface)									

Stream Type at Transect Location: riffle☐, run☐, glide☐, pool☐, (check one)

Location of Transect	Water Surface Width (ft)	Stream Depths (ft) at Points Across Transect (channel bed to water surface)									

Stream Type at Transect Location: riffle☐, run☐, glide☐, pool☐, (check one)

Location of Transect	Water Surface Width (ft)	Stream Depths (ft) at Points Across Transect (channel bed to water surface)									

Stream Type at Transect Location: riffle☐, run☐, glide☐, pool☐, (check one)

Location of Transect	Water Surface Width (ft)	Stream Depths (ft) at Points Across Transect (channel bed to water surface)									

Stream Type at Transect Location: riffle ☐ run ☐ glide ☐ pool ☐ (check one)

Location of Transect	Water Surface Width (ft)	Stream Depths (ft) at Points Across Transect (channel bed to water surface)									

Stream Type at Transect Location: riffle ☐ run ☐ glide ☐ pool ☐ (check one)

Location of Transect	Water Surface Width (ft)	Stream Depths (ft) at Points Across Transect (channel bed to water surface)									

Stream Type at Transect Location: riffle ☐ run ☐, glide ☐, pool ☐, (check one)

Location of Transect	Water Surface Width (ft)	Stream Depths (ft) at Points Across Transect (channel bed to water surface)									

Stream Type at Transect Location: riffle ☐ run ☐ glide ☐ pool ☐ (check one)

Location of Transect	Water Surface Width (ft)	Stream Depths (ft) at Points Across Transect (channel bed to water surface)									

Stream Type at Transect Location: riffle ☐ run ☐ glide ☐ pool ☐, (check one)

Location of Transect	Water Surface Width (ft)	Stream Depths (ft) at Points Across Transect (channel bed to water surface)									

2. SUMMARIZE MEASUREMENTS (Instructions, Page 57)

Streambed slope of entire reach (from USGS map) _____

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

Length of stream evaluated (in feet) _____

Number of lateral transects made _____

Average stream width (in feet) _____

Average stream depth (in feet) _____

Average stream velocity (in ft/sec) _____

Instantaneous stream flow (in 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 (in feet) _____

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 IS REQUIRED FOR ALL TPDES PERMIT APPLICATIONS THAT MEET THE CONDITIONS AS OUTLINED IN TECHNICAL REPORT 1.0, ITEM NO. 7.

1. SEWAGE SLUDGE SOLIDS MANAGEMENT PLAN (Instructions, Page 58)

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**, _____ indicate by a check mark that a solids management plan was provided with the application.

2. SEWAGE SLUDGE MANAGEMENT AND DISPOSAL (Instructions, Pages 58-59)

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

_____Permitted landfill
_____Registered land application site
_____Surface disposal site (sludge monofill)
_____Transported to another WWTP (written statement or contractual agreement required)
_____Beneficial land application as authorized in the existing permit
_____Marketing and distribution by the permittee
_____Composted by the permittee

b. Disposal site name, TCEQ Permit/Registration Number and County where disposal site is located:
_____

c. Method of Transportation (truck, train, pipe, other) and hauler Registration Number:
_____

Transported in: _____liquid _____semi-liquid _____semi-solid _____solid state
Land application for : _____Reclamation _____Soil Conditioning

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

3. PERMIT AUTHORIZATION FOR SEWAGE SLUDGE DISPOSAL (Instructions, Page 59)

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 SLUDGE TECHNICAL REPORT.

New authorization for beneficial land application, incineration, and sludge lagoons in the TPDES or TLAP permits 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 60)

a. Does your POTW have, or is it required to develop an approved pretreatment program? _____ Yes _____ No

If yes, skip to item 2. If no, answer the remaining questions in item 1 and all questions in item 3.

b. Provide the number of each of the following types of industrial users that discharge to your POTW and the flows from each.

Type of industrial user	Number of industrial users	Average Flows in MGD
CIUs		
SIUs - Non-categorical		
Other IUs		

c. 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 all dates, duration, description of interference, probable cause(s) and possible source(s).

d. In the past three years, has your POTW experienced pass through as defined in the definition section of the instruction? _____ Yes _____ No

If yes, identify all dates, duration, description of pollutants passing through the treatment plant, probable cause(s)

2. POTWS WITH APPROVED PROGRAMS OR THOSE REQUIRED TO DEVELOP PROGRAM (Instructions, Pages 60-61)

a. Have there been any substantial modifications to the POTWs approved pretreatment program that have not been approved according to 40 CFR Section 403.18? _____ Yes _____ No

If yes, identify on a separate attachment all substantial and nonsubstantial modifications that have not been submitted to the Approval Authority (TCEQ). **Attachment:** _____

Please note that following TPDES Permit issuance, all POTWs with an approved pretreatment program, or are required to develop an approved pretreatment program must provide a written technical evaluation of the need to modify the POTWs Pretreatment Program and revised the TBLLs according to 40 CFR Section 403.5(c)(1).

b. In the past three years, has the POTW experienced treatment plant interference as defined in the application instructions? _____ Yes _____ No

If yes, identify all dates, duration, description of interference, probable cause(s) and possible source(s).

c. In the past three years, has the POTW experienced pass through as defined in the application instruction?
Yes No

If yes, identify all dates, duration, description of pollutants passing through the treatment plant, probable cause(s) and possible source(s).

d. List all parameters measured above the MAL in POTWs effluent annual monitoring scan during the last three years.

Pollutant	Concentration	MAL	Units	Date

e. Has the SIU caused or contributed to any problems (e.g., interferences, pass through) 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.

3. SIGNIFICANT INDUSTRIAL USER (SIU) INFORMATION (Instructions, Page 61)

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 of other activities that affect or contribute to the SIU(s) discharge:

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

d. Flow rate information:

Flow information	Gallons per day discharged	Continuous, batch or intermittent discharge
Process wastewater		
Non-process wastewater		

e. Pretreatment Standards: Indicate whether the SIU is subject to the following:

Technically based local limits as defined in the instruction section of the application: _____ Yes _____ No

Categorical pretreatment standards: _____ Yes _____ No

If subject to categorical pretreatment standards, indicate the category and subcategory:

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

f. Has the SIU caused or contributed to any problems (e.g., interferences, pass through) 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.

WORKSHEET 7.0 - STORM WATER RUNOFF WORKSHEET

REQUIRED FOR ALL TPDES PERMIT APPLICATIONS APPLYING FOR INDIVIDUAL PERMIT COVERAGE FOR DISCHARGES OF STORM WATER RUNOFF.

1. Do discharges from any of the proposed or existing outfalls consist of storm water runoff only or storm water runoff and any of the listed non-storm water discharges? (See Instructions, Page 62)
_____ Yes _____ No

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

2. Indicate by a check mark which type of authorization covers or is proposed to cover discharges from each storm water outfall. (See Instructions, Page 62)

Outfall	Coverage Under MSGP	Coverage Under Individual Permit	Outfall	Coverage Under MSGP	Coverage Under Individual Permit

If you have indicated that all existing or proposed storm water outfalls are covered under the MSGP, **stop here**. If you have indicated that you are seeking authorization under an individual permit, **proceed as directed**.

THE FOLLOWING ITEMS ARE REQUIRED FOR EACH OUTFALL THAT DISCHARGES STORM WATER, AND FOR WHICH YOU ARE SEEKING INDIVIDUAL AUTHORIZATION UNDER THIS PERMIT APPLICATION.

3. **Site Map** (Instructions, pages 62-63) - Indicate by a check mark that a site map(s) of the entire facility has been provided with the following information.

_____ the location of each storm water outfall to be covered by the permit;
_____ an outline of the drainage area that is within the facility's boundary and that contributes storm water 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 storm water 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 storm water 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; and
_____ processing areas, storage areas, material loading/unloading areas, and other locations where significant materials are exposed to precipitation or runoff.

4. FACILITY/SITE INFORMATION (Instructions, page 63)

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

b. Provide a 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.

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

5. POLLUTANT ANALYSIS (Instructions, pages 63-65)

a. TABLE 1-SW: Please complete the table as directed.

Outfall _____	MAXIMUM VALUES (mg/L)		AVERAGE VALUES (mg/L)			
Pollutant	Grab Sample Taken During First 30 Minutes	Flow Weighted Composite Sample	Grab Sample Taken During First 30 Minutes	Flow Weighted Composite Sample	Number of Storm Events Sampled	MAL (mg/L)
pH (Standard Units)	___(min)	___(max)	___(min)	___(max)	___	---
Total Suspended Solids	___	___	___	___	___	---
Chemical Oxygen Demand	___	___	___	___	___	---
Total Organic Carbon	___	___	___	___	___	---
Oil and Grease	___	___	___	___	___	---
Total Arsenic	___	___	___	___	___	0.010
Total Barium	___	___	___	___	___	0.010
Total Cadmium	___	___	___	___	___	0.001
Total Chromium	___	___	___	___	___	0.010
Trivalent Chromium	___	___	___	___	___	---
Hexavalent Chromium	___	___	___	___	___	0.010
Total Copper	___	___	___	___	___	0.010
Total Lead	___	___	___	___	___	0.005
Total Mercury	___	___	___	___	___	0.0002
Total Nickel	___	___	___	___	___	0.010
Total Selenium	___	___	___	___	___	0.010
Total Silver	___	___	___	___	___	0.002
Total Zinc	___	___	___	___	___	0.005

b. TABLE 2-SW: Please complete the table as directed. (Instructions, Pages 63-65)

Outfall _____	MAXIMUM VALUES (mg/L)		AVERAGE VALUES (mg/L)		
Pollutant	Grab Sample Taken During First 30 Minutes	Flow Weighted Composite Sample	Grab Sample Taken During First 30 Minutes	Flow Weighted Composite Sample	Number of Storm Events Sampled

6. STORM EVENT DATA (Instructions, page 65)

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

a. Date of storm event: _____

b. Duration of storm event (in minutes): _____

c. Total rainfall during storm event (in inches): _____

d. Number of hours between beginning of storm measured and end of previous measurable rain event: _____ hours

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

f. Total storm water flow from rain event (in gallons): _____

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

WORKSHEET 8.0 - AQUACULTURE

THE FOLLOWING IS REQUIRED FOR ALL TPDES PERMIT APPLICATIONS APPLYING FOR INDIVIDUAL PERMIT COVERAGE FOR DISCHARGES OF AQUACULTURE WASTEWATER.

1. FACILITY/SITE INFORMATION (Instructions, Page 66)

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

Number of Ponds	Dimensions	Area of Each Pond	Number of Raceways	Dimensions	Number of Tanks	Dimensions

Total surface area of all ponds _____

b. Do you have a TPWD-approved emergency plan? ____ Yes ____ No

c. Do you have an aquatic plant transplant authorization? ____ Yes ____ No

If so, please provide a copy of the authorization letter.

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

2. SPECIES IDENTIFICATION (Instructions, Pages 66-67)

Please complete the following table for each species being raised. Identify the 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.

Species	Source of Stock	Origin of Stock	Disease Status	Authorizations

3. STOCK MANAGEMENT PLAN (Instructions, Page 67)

Provide a detailed stock management plan including all information required on Page # of the Instructions for Completing the Industrial Wastewater Application. Provide an attachment if necessary.

Provide a detailed description of the discharge practices and water treatment process including all information required on Page # of the Instructions for Completing the Industrial Wastewater Application. Provide an attachment if necessary.

5. SOLID WASTE MANAGEMENT (Instructions, Page 68)

Describe solid waste disposal practices including all information required on Page # of the Instructions for Completing the Industrial Wastewater Application. Provide an attachment if necessary.

6. SITE ASSESSMENT REPORT AND SENSITIVE HABITAT REQUIREMENTS (Applicable to new and expanding commercial shrimp facilities located within the coastal zone) (Instructions, Page 68-69)

Attach a detailed site assessment report including all information requested on Page # of the Instructions for Completing the Industrial Wastewater Application. Indicate with a checkmark that each of the following items has been included within the site assessment report.

____ **(a)** Facility Location
____ **(b)** Flushing Rate
____ **(c)** Reefs
____ **(d)** Endangered or Threatened Species or Species of Concern
____ **(e)** Spawning
____ **(f)** Nesting
____ **(g)** Bird Roosts
____ **(h)** Recreational Use
____ **(i)** Nursery Habitat
____ **(j)** Discharge Characterization

WORKSHEET 9.0

SUBMIT TO:
TCEQ
Industrial and Hazardous Waste Permits Section
MC130
PO Box 13087
Austin, Texas 78711-3087
512/239-6075

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CLASS V INJECTION WELL
INVENTORY/ AUTHORIZATION FORM

Reg. No. 5____

For TCEQ Use Only

Reg. No.
_____
Date Received
_____
Date Authorized
_____

Section I General Information
Provide the information in items 1 through 8

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, Infilltration 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

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

Section IV Site Hydrogeological and Injection Zone Data
Provide the information in items 14 through 31

14. Name of Contaminated Aquifer

15. Receiving Formation Name of Injection Zone

16. Well/Trench Total Depth

17. Surface Elevation

18. Depth to Ground Water

19. Injection Zone Depth

20. Injection Zone vertically isolated geologically? Y/N 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

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 Ground Water with < 10,000 PPM TDS
26. Maximum injection Rate/Volume/Pressure
27. Water wells within 1/4 mile radius (attach map as Attachment I)
28. Injection wells within 1/4 mile radius (attach map as Attachment I)
29. Monitor wells within 1/4 mile radius (attach drillers logs and map as Attachment I)
30. Sampling frequency
31. Known hazardous components in injection fluid
Section V Site History Provide the information in items 32 through 35
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 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 and/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.....Storm Water 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 ground water 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, and/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

THE FOLLOWING IS REQUIRED FOR ALL TPDES PERMIT APPLICATIONS APPLYING FOR INDIVIDUAL PERMIT FOR A MUNICIPAL SOLID WASTE OR MINING FACILITY LOCATED WITHIN A WATER QUALITY PROTECTION AREA IN THE JOHN GRAVES SCENIC RIVERWAY, APPLYING FOR AN INDIVUAL TPDES OR TLAP PERMIT.

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

1. EXCLUSIONS (Instructions, pages 73-74)

		Yes	No
a.	Is this a municipal solid waste facility?		
b.	Has this a quarry been in operation since January 1, 1994 without cessation of operation for more than 30 consecutive days and under the same ownership?		
c.	Is this a coal mine?		
d.	Is this a facility mining clay and shale for use in manufacturing structural clay products?		

If **yes** to any of the above, **stop here**. You are required to maintain documentation on-site at the facility demonstrating these exclusions. 30 TAC §311.72(c) outlines the acceptable forms of documentation.

2. LOCATION OF THE QUARRY (Instructions, page 74)

	Location of the Quarry Relative to a Navigable Water Body	Yes	No
a.	<200 feet	OPERATION PROHIBITED	
b.	200 feet – 1,500 feet		
c.	1,500 feet – 1 mile		
d.	> 1 mile		

3. ADDITIONAL APPLICATION REQUIREMENTS (Instructions, pages 74-75)

Application Requirement	Location of the Quarry Relative to a Perennial Water Body				Submitted
	<200 feet	200 feet – 1,500 feet	1,500 feet – 1 mile	> 1 mile	
Restoration Plan	OPERATION PROHIBITED	R	---	---	
Financial Assurance for Restoration		R	---	---	
Technical Demonstration		R	---	---	
Reclamation Plan		R	R	R	
Financial Assurance for Reclamation		R	R	R	

R Required
--- Not Required

a. Restoration Plan

Indicate by check mark that the Restoration Plan addresses the following, as required by 30 TAC §311.76:

Item		Submitted
i.	Certified by a licensed Texas professional engineer or a licensed Texas professional geoscientist, within the appropriate area or discipline.	
ii.	Identifies receiving waters at risk of an unauthorized discharge from the quarry and includes a proposed plan of action for restoration.	
iii.	Describes the process(es) used in documenting existing physical, chemical, and/or biological background conditions of *each* of the receiving waters.	
iv.	Provides a schedule for updating background conditions, as appropriate.	
v.	Identifies the goals and objectives of potential restoration actions.	
vi.	Provides a reasonable range of restoration alternatives and identifies the preferred restoration alternative.	
vii.	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.	
viii.	Identifies a process for public involvement in the selection of the restoration alternative.	
ix.	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.

i.	Amount of Financial Assurance:	$
ii.	Mechanism:	

c. Technical Demonstration.

Indicate that the Technical Demonstration addresses the following, as required by 30 TAC §311.77:

Item		Submitted
i.	Certified by a licensed Texas professional engineer or a licensed Texas professional geoscientist, within the appropriate area or discipline.	
ii.	Provides a time schedule for the quarry from initiation to termination of operations, including reclamation.	
iii.	Provides a detailed description of the type of quarrying to be conducted and the processes/methods employed.	
iv.	Provides 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.	
v.	Identifies and provides a detailed description of any other operations on-site, include raw-material processing and/or secondary products processing.	
vi.	A topographic map representing the quarry operation and all of the following within the boundaries of the quarry:	
	(1) water bodies;	
	(2) existing and proposed roads including quarry access roads;	

Item				Submitted
	(3)	existing and proposed railroads;		
	(4)	the 100 year floodplain boundaries;		
	(5)	structures;		
	(6)	the location of all know wells including water wells, oil wells, and unplugged and abandoned wells;		
	(7)	active, post, and reclaimed quarry areas;		
	(8)	buffer areas;		
	(9)	raw material, intermediate material, final product, waste product, byproduct, and/or ancillary material storage and processing areas;		
	(10)	chemical and fuel storage areas;		
	(11)	vehicle/equipment maintenance, cleaning, and fueling areas;		
	(12)	vehicle/equipment loading and unloading areas;		
	(13)	baghouses and other air treatment units exposed to precipitation;		
	(14)	waste disposal areas.		
vii.	Surface Water Drainage and Water Accumulation Plan (SWDAP).			
	(1)	Describes the use and monitoring of structural controls and best management practices designed to control erosion, siltation, and runoff		
	(2)	Provides a topographic map, at a scale appropriate to represent the quarry operation and all of the following within the boundaries of the quarry:		
		(A)	the location of each process wastewater and/or storm water outfall;	
		(B)	an outline of the drainage area that contributes storm water to each outfall;	
		(C)	treatment, detention, and water storage tanks and ponds;	
		(D)	structural controls for managing storm water and/or process wastewater;	
		(E)	physical features of the site that would influence storm water runoff or contribute a dry weather flow.	
viii.	Best Available Technology Evaluation (BATE).			
	(1)	Assesses the use of structural controls and best management practices.		
	(2)	Evaluates performance criteria outlined at 30 TAC §§311.79 and 311.80.		
	(3)	Structural control design and construction is certified by a licensed Texas professional engineer. *Design and construction plan/specification must be maintained on site.*		
ix.	A procedure and schedule for reviewing the Technical Demonstration of consistency with quarry operations and site conditions and effectiveness in controlling erosion, siltation, and runoff.			

d. Reclamation Plan

Indicate that the Reclamation Plan addresses the following, as required by 30 TAC §311.78:

Item			Submitted
i.	Certified by a licensed Texas professional engineer or a licensed Texas professional geoscientist, within the appropriate area or discipline.		
ii.	Provides a description of the proposed use for the disturbed area following reclamation.		
iii.	Develops site-specific standard for reclamation appropriate to the end use that addresses the following:		
	(1)	removal or final stabilization of all raw material, intermediate material, final product, waste product, byproduct, and/or ancillary material;	
	(2)	removal of waste or closure of all waste disposal areas;	
	(3)	removal of structures, where appropriate;	
	(4)	removal and reclamation of all temporary roads and/or railroads;	
	(5)	backfilling, regarding, and recontouring;	
	(6)	slope stability for remaining highwalls and detention ponds;	
	(7)	revegetation of the reclaimed area giving consideration to species diversity and the use of native species;	
	(8)	establishment of wildlife habitat;	
	(9)	establishment of drainage patterns;	
	(10)	establishments of permanent control structures, where necessary, to address erosion, siltation, and runoff from post quarrying and reclaimed areas;	
	(11)	removal of all equipment.	
iv.	Provides 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.

i.	Amount of Financial Assurance:	$
ii.	Mechanism:	

WORKSHEET 11.0 – COOLING WATER INTAKE STRUCTURES

REQUIRED FOR ALL INDIVIDUAL TPDES PERMIT APPLICATIONS FOR:

- **MANUFACTURING FACILITIES CONSTRUCTED ON OR AFTER JANUARY 17, 2002**
- **ALL POWER GENERATING FACILITIES**

40 CFR Part 125, Subparts I and J regulate the cooling water intake structure(s) certain at power generation and manufacturing facilities. **40 CFR Part 125, Subparts I and J should be thoroughly reviewed prior to completing any portion of this worksheet.**

1. Phase I Facilities

a. Applicability

Please answer the following:

	Facility	Yes	No	N/A
i.	Is this facility defined as a new facility?			
ii.	Is this a point source that uses/proposes to use a cooling water intake structure to withdraw cooling water from waters of the United States?			
iii.	Does the facility have at least one cooling water intake structure that uses ≥25% of the water it withdraws for cooling purposes (average monthly basis)?			
iv.	Does the facility have a *design* intake flow ≥2 MGD?			

If **yes to <u>all</u>** of the questions, 316(b) Phase I is applicable to this facility and you will need to **continue to Item 1.b**. If **no or N/A to <u>any</u>** of the questions, **stop here.**

b. Compliance Alternative

Please indicate the compliance alternative selected for this facility.

	Compliance Alternative	Selected
i.	Track I, facilities withdrawing ≥ 10 MGD	
ii.	Track I, facilities withdrawing ≥ 2 MGD and <10 MGD	
iii.	Track II	

c. Application Requirements

The 316(b) Phase I Compliance Report has been submitted with this permit application as Attachment:

Please complete the table provided, indicating with an "x" that the information has been submitted.

316(b) Phase I Compliance Demonstration Requirements

Compliance Alternative	**40 CFR §122.21(r)**			**Flow reduction information**	**Velocity information**	**Source water body flow information**	**Design & Construction Technology Plan**[1]	**Track II Comprehensive Demonstration Study**		
	Source water physical data	Cooling water intake structure data	Source Water Baseline Biological Characterization					Source Water Biological Study	Evaluation of potential cooling water intake structure effects	Verification Monitoring Plan
Track I (≥ 2 and ≤ 10 MGD)										
Track I (≥ 10 MGD)										
Track II										

[1] The Design and Construction Technology Plan is required ONLY where:

there are threatened and endangered or otherwise protected federal, state, or tribal species, or critical habitat for these species, within the hydraulic zone of influence of the cooling water intake structure;

OR

based on information submitted by any fishery management agency(ies) or relevant information, there are migratory and/or sport or commercial species of impingement concern that pass through the hydraulic zone of influence of the cooling water intake structure;

OR

it is determined, based on information submitted by any fishery management agency(ies) or other relevant information, that the proposed facility, after meeting the technology-based performance requirements in 40 CFR §125.84(b)(1), (2), and (3) would still contribute unacceptable stress to the protected species, critical habitat of those species, or these species of concern.

2. Phase II Facilities

a. Applicability

Please answer the following:

		Yes	No	N/A
i.	Does this facility, as its primary activity, generate/transmit or generate/sell for transmission electric power?			
ii.	Was the facility constructed *prior to* January 17, 2002?			
iii.	Is this a point source that uses/proposes to use a cooling water intake structure to withdraw cooling water from waters of the United States?			
iv.	Does the facility have at least one cooling water intake structure that uses ≥25% of water withdrawn used exclusively for cooling purposes (monthly average basis)?			
v.	Does the facility have a *design* intake flow of ≥50 MGD?			

If **yes to <u>all</u>** of the questions, 316(b) Phase II is applicable to this facility and you will need to **continue to Item 1.b**. If **no or N/A to <u>any</u>** of the questions, **stop here.**

b. Compliance Alternative

Please indicate the compliance alternative selected for this facility.

	Compliance Alternative		Selected
(1)	(i)	Flow reduced commensurate with a closed-cycle recirculating system.	
	(ii)	Maximum through-screen design intake velocity reduced to ≤ 0.5 ft/sec.	
(2)	*Existing* design/construction technologies, operational measures, and/or restoration measures meet the performance standards specified at 40 CFR §125.94(b) and/or the restoration requirements in 40 CFR §125.94(c).		
(3)	*New in combination with existing* design/construction technologies, operational measures, and/or restoration measures meet the performance standards specified at 40 CFR §125.94(b) and/or the restoration requirements in 40 CFR §125.94(c).		
(4)	Approved design and construction technology in accordance with 40 CFR §125.99(a) or (b).		
(5)	Site-Specific Determination of Best Technology Available		
	(i)	Costs significantly greater than those considered by EPA (cost/cost)	
	(ii)	Cost significantly greater than benefits (cost/benefit)	

c. Application Requirements

The 316(b) Phase II Compliance Report has been submitted with this permit application as Attachment:

Please complete the table provided, indicating with an "x" that the information has been submitted.

316(b) Phase II Compliance Demonstration Requirements

Compliance Option		40 CFR §122.21(r)			Comprehensive Demonstration Study (CDS)									
		Source water physical data	Cooling water intake structure data	Cooling water system data	Proposal for Information Collection (PIC)[2]	Source water body flow information	Impingement Mortality and/or Entrainment Characterization Study	Technology &compliance assessment information: Design and Construction Technology Plan	Technology &compliance assessment information: Technology Installation and Operation Plan	Restoration Plan[3]	Information to support site-specific determination of best technology available for minimizing adverse environmental impact: Comprehensive Cost Evaluation Study	Information to support site-specific determination of best technology available for minimizing adverse environmental impact: Benefits Valuation Study	Information to support site-specific determination of best technology available for minimizing adverse environmental impact: Site-Specific Technology Plan	Verification Monitoring Plan[4]
1	(i)													
	(ii)[1]													
2														
3														
4														
5	(i)													
	(ii)													

[1]This compliance alternative demonstrates compliance with impingement performance standards only. Where entrainment performance standards are applicable, please also select a separate compliance alternative for entrainment and submit all applicable data.
[2]The PIC is submitted ONLY where a FINAL PIC has not been previously submitted to the TCEQ.
[3]The Restoration Plan is submitted ONLY where the facility proposes restoration measures.
[4]The Verification Monitoring Plan is submitted ONLY where the facility proposes design and construction technologies and/or operational measures.