TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

INDUSTRIAL WASTEWATER PERMIT APPLICATION TECHNICAL REPORT 1.0

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

For **additional information** or clarification on the requested information, please refer to the [Instructions for Completing the Industrial Wastewater Permit Application](https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_steps.html)[[1]](#footnote-2) available on the TCEQ website. Please contact the Industrial Permits Team at 512-239-4671 with any questions about this form.

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

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

# Facility/Site Information (Instructions, Page 39)

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

|  |
| --- |
| Click to enter text. |

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

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| --- |
| Click to enter text. |

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

Materials List

| **Raw Materials** | **Intermediate Products** | **Final Products** |
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**Attachment:** Click to enter text.

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

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

**Attachment:** Click to enter text.

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

  Yes    No

If **yes**, provide background discussion: Click to enter text.

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

  Yes    No

List source(s) used to determine 100-year frequency flood plain: Click to enter text.

If **no**, provide the elevation of the 100-year frequency flood plain and describe what protective measures are used/proposed to prevent flooding (including tail water and rainfall run-on controls) of the treatment facility and disposal area: Click to enter text.

**Attachment:** Click to enter text.

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

  Yes    No    N/A (renewal only)

1. If **yes** to Item 1.g, has the applicant applied for a USACE CWA Chapter 404 Dredge and Fill permit?

  Yes    No

If **yes**, provide the permit number: Click to enter text.

If **no**, provide an approximate date of application submittal to the USACE: Click to enter text.

# Treatment System (Instructions, Page 40)

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

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| --- |
| Click to enter text. |

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

**Attachment:** Click to enter text.

# Impoundments (Instructions, Page 40)

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

  Yes    No

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

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

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

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

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

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

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

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

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

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

Impoundment Information

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

**Attachment:** Click to enter text.

The following information (**Items 3.b – 3.e**) is required only for **new or proposed** impoundments.

1. For new or proposed impoundments, attach any available information on the following items. If attached, check **yes** in the appropriate box. Otherwise, check **no** or **not yet designed**.
2. Liner data

  Yes    No    Not yet designed

1. Leak detection system or groundwater monitoring data

  Yes    No    Not yet designed

1. Groundwater impacts

  Yes    No    Not yet designed

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

**Attachment:** Click to enter text.

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

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

**Attachment:** Click to enter text.

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

**Attachment:** Click to enter text.

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

**Attachment:** Click to enter text.

# Outfall/Disposal Method Information (Instructions, Page 42)

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

If there are more outfalls/points of disposal at the facility than the spaces provided, copies of pages 6 and/0r numbered accordingly (i.e., page 6a, 6b, etc.) may be used to provide information on the additional outfalls.

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

Outfall Longitude and Latitude

| **Outfall No.** | **Latitude (Decimal Degrees)** | **Longitude (Decimal Degrees)** |
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Outfall Location Description

| **Outfall No.** | **Location Description** |
| --- | --- |
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Description of Sampling Point(s) (if different from Outfall location)

| **Outfall No.** | **Description of sampling point** |
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Outfall Flow Information – Permitted and Proposed

| **Outfall No.** | **Permitted Daily Avg Flow (MGD)** | **Permitted Daily Max Flow (MGD)** | **Proposed Daily Avg Flow (MGD)** | **Proposed Daily Max Flow (MGD)** | **Anticipated Discharge Date (mm/dd/yy)** |
| --- | --- | --- | --- | --- | --- |
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Outfall Discharge – Method and Measurement

| **Outfall No.** | **Pumped Discharge? Y/N** | **Gravity Discharge? Y/N** | **Type of Flow Measurement Device Used** |
| --- | --- | --- | --- |
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Outfall Discharge – Flow Characteristics

| **Outfall No.** | **Intermittent Discharge? Y/N** | **Continuous Discharge? Y/N** | **Seasonal Discharge? Y/N** | **Discharge Duration (hrs/day)** | **Discharge Duration (days/mo)** | **Discharge Duration (mo/yr)** |
| --- | --- | --- | --- | --- | --- | --- |
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**Outfall Wastestream Contributions**

Outfall No. Click to enter text.

| **Contributing Wastestream** | **Volume (MGD)** | **Percent (%) of Total Flow** |
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Outfall No. Click to enter text.

| **Contributing Wastestream** | **Volume (MGD)** | **Percent (%) of Total Flow** |
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Outfall No. Click to enter text.

| **Contributing Wastestream** | **Volume (MGD)** | **Percent (%) of Total Flow** |
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**Attachment:** Click to enter text.

# Blowdown and Once-Through Cooling Water Discharges (Instructions, Page 43)

1. Indicate if the facility currently or proposes to:

  Yes    No Use cooling towers that discharge blowdown or other wastestreams

  Yes    No Use boilers that discharge blowdown or other wastestreams

  Yes    No Discharge once-through cooling water

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

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

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

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

**Attachment:** Click to enter text.

1. Cooling Towers and Boilers

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

Cooling Towers and Boilers

| **Type of Unit** | **Number of Units** | **Daily Avg Blowdown (gallons/day)** | **Daily Max Blowdown (gallons/day)** |
| --- | --- | --- | --- |
| Cooling Towers |  |  |  |
| Boilers |  |  |  |

# Stormwater Management (Instructions, Page 44)

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

  Yes    No

If **yes**, briefly describe the industrial processes and activities that occur outdoors or in a manner which may result in exposure of the activities or materials to stormwater: Click to enter text.

# Domestic Sewage, Sewage Sludge, and Septage Management and Disposal (Instructions, Page 44)

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

1. Check the box next to the appropriate method of domestic sewage and domestic sewage sludge treatment or disposal. Complete Worksheet 5.0 or Item 7.b if directed to do so.

Domestic sewage is routed (i.e., connected to or transported to) to a WWTP permitted to receive domestic sewage for treatment, disposal, or both. **Complete Item 7.b**.

Domestic sewage disposed of by an on-site septic tank and drainfield system. **Complete Item 7.b**.

Domestic and industrial treatment sludge **ARE commingled** prior to use or disposal.

Industrial wastewater and domestic sewage are treated separately, and the respective sludge **IS NOT commingled** prior to sludge use or disposal. **Complete Worksheet 5.0**.

Facility is a POTW. **Complete Worksheet 5.0**.

Domestic sewage is not generated on-site.

Other (e.g., portable toilets), specify and **Complete Item 7.b**: Click to enter text.

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

Domestic Sewage Plant/Hauler Name

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

# Improvements or Compliance/Enforcement Requirements (Instructions, Page 45)

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

  Yes    No

1. Has the permittee completed or planned for any improvements or construction projects?

  Yes    No

1. If **yes** to either 8.a **or** 8.b, provide a brief summary of the requirements and a status update: Click to enter text.

# Toxicity Testing (Instructions, Page 45)

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

  Yes    No

If **yes**, identify the tests and describe their purposes: Click to enter text.

Additionally, attach a copy of all tests performed which **have not** been submitted to the TCEQ or EPA. **Attachment:** Click to enter text.

# Off-Site/Third Party Wastes (Instructions, Page 45)

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

  Yes    No

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

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

1. Attach the following information to the application:

* List of wastes received (including volumes, characterization, and capability with on-site wastes).
* Identify the sources of wastes received (including the legal name and addresses of the generators).
* Description of the relationship of waste source(s) with the facility’s activities.

**Attachment:** Click to enter text.

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

  Yes    No

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

**Attachment:** Click to enter text.

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

  Yes    No

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

# Radioactive Materials (Instructions, Page 46)

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

  Yes    No

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

Radioactive Materials Mined, Used, Stored, or Processed

| **Radioactive Material Name** | **Concentration (pCi/L)** |
| --- | --- |
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|  |  |

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

  Yes    No

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

Radioactive Materials Present in the Discharge

| **Radioactive Material Name** | **Concentration (pCi/L)** |
| --- | --- |
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# Cooling Water (Instructions, Page 46)

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

  Yes

  No

  Decommissioned: Click to enter text.

  To Be Decommissioned: Click to enter text.

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

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

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

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

  Yes    No

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

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

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

| **CWIS ID** |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Owner** |  |  |  |  |
| **Operator** |  |  |  |  |

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

  No    Yes; PWS No.: Click to enter text.

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

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

  No    Yes; Auth No.: Click to enter text.

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

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

  No    Yes; AIF: Click to enter text.

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

1. 316(b) General Criteria
2. The CWIS(s) used to provide water for cooling purposes to the facility has or will have a cumulative design intake flow of 2 MGD or greater.

  Yes    No

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

  Yes    No

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

  Yes    No. Explanation: Click to enter text.

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

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

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

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

  Yes    No

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

1. Oil and Gas Exploration and Production
2. The facility is subject to requirements at 40 CFR Part 435, Subparts A or D.

  Yes    No

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

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

  Yes    No

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

1. Compliance Phase and Track Selection
2. Phase I – New facility subject to 40 CFR Part 125, Subpart I

  Yes    No

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

  Track I – AIF greater than 2 MGD, but less than 10 MGD

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

  Track I – AIF greater than 10 MGD

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

  Track II

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

**Attachment:** Click to enter text.

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

  Yes    No

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

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

  Yes    No

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

  Track I – Fixed facility

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

  Track I – Not a fixed facility

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

  Track II – Fixed facility

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

**Attachment:** Click to enter text.

# Permit Change Requests (Instructions, Page 48)

This item is only applicable to existing permitted facilities.

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

  Yes    No

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

|  |
| --- |
| Click to enter text. |

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

  Yes    No

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

|  |
| --- |
| Click to enter text. |

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

  Yes    No

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

|  |
| --- |
| Click to enter text. |

# Laboratory Accreditation (Instructions, Page 49)

All laboratory tests performed must meet the requirements of 30 TAC Chapter 25, Environmental Testing Laboratory Accreditation and Certification, which includes the following general exemptions from National Environmental Laboratory Accreditation Program (NELAP) certification requirements:

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

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

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

CERTIFICATION:

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

Printed Name: Click to enter text.

Title: Click to enter text.

Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 1.0: EPA CATEGORICAL EFFLUENT GUIDELINES**

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

# Categorical Industries (Instructions, Page 53)

Is this facility subject to any 40 CFR categorical ELGs outlined on page 53 of the instructions?

  Yes    No

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

40 CFR Effluent Guideline

| **Industry** | **40 CFR Part** |
| --- | --- |
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# Production/Process Data (Instructions, Page 54)

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

1. **Production Data**

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

Production Data

| **Subcategory** | **Actual Quantity/Day** | **Design Quantity/Day** | **Units** |
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1. **Organic Chemicals, Plastics, and Synthetic Fibers Manufacturing Data (40 CFR Part 414)**

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

Percentage of Total Production

| **Subcategory** | **Percent of Total Production** | **Appendix A and B - Metals** | **Appendix A - Cyanide** |
| --- | --- | --- | --- |
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1. **Refineries (40 CFR Part 419)**

Provide the applicable subcategory and a brief justification.

|  |
| --- |
| Click to enter text. |

# Process/Non-Process Wastewater Flows (Instructions, Page 54)

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

|  |
| --- |
| Click to enter text. |

# New Source Determination (Instructions, Page 54)

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

Wastewater Generating Processes Subject to Effluent Guidelines

| **Process** | **EPA Guideline Part** | **EPA Guideline Subpart** | **Date Process/ Construction Commenced** |
| --- | --- | --- | --- |
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**INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 2.0: POLLUTANT ANALYSIS**

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

# General Testing Requirements (Instructions, Page 55)

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

# Specific Testing Requirements (Instructions, Page 56)

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

TABLE 1 and TABLE 2 (Instructions, Page 58)

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

Table 1 for Outfall No.: Click to enter text. ****Samples are (check one):****    ****Composite****    ****Grab****

| **Pollutant** | **Sample 1 (mg/L)** | **Sample 2 (mg/L)** | **Sample 3 (mg/L)** | **Sample 4 (mg/L)** |
| --- | --- | --- | --- | --- |
| BOD (5-day) |  |  |  |  |
| CBOD (5-day) |  |  |  |  |
| Chemical oxygen demand |  |  |  |  |
| Total organic carbon |  |  |  |  |
| Dissolved oxygen |  |  |  |  |
| Ammonia nitrogen |  |  |  |  |
| Total suspended solids |  |  |  |  |
| Nitrate nitrogen |  |  |  |  |
| Total organic nitrogen |  |  |  |  |
| Total phosphorus |  |  |  |  |
| Oil and grease |  |  |  |  |
| Total residual chlorine |  |  |  |  |
| Total dissolved solids |  |  |  |  |
| Sulfate |  |  |  |  |
| Chloride |  |  |  |  |
| Fluoride |  |  |  |  |
| Total alkalinity (mg/L as CaCO3) |  |  |  |  |
| Temperature (°F) |  |  |  |  |
| pH (standard units) |  |  |  |  |

Table 2 for Outfall No.: Click to enter text. ****Samples are (check one):****    ****Composite****    ****Grab****

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

TABLE 3 (Instructions, Page 58)

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

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

Table 3 for Outfall No.: Click to enter text. ****Samples are (check one):****    ****Composite****    ****Grab****

| **Pollutant** | **Sample 1**  **(µg/L)\*** | **Sample 2**  **(µg/L)\*** | **Sample 3**  **(µg/L)\*** | **Sample 4**  **(µg/L)\*** | **MAL**  **(µg/L)\*** |
| --- | --- | --- | --- | --- | --- |
| Acrylonitrile |  |  |  |  | 50 |
| Anthracene |  |  |  |  | 10 |
| Benzene |  |  |  |  | 10 |
| Benzidine |  |  |  |  | 50 |
| Benzo(a)anthracene |  |  |  |  | 5 |
| Benzo(a)pyrene |  |  |  |  | 5 |
| Bis(2-chloroethyl)ether |  |  |  |  | 10 |
| Bis(2-ethylhexyl)phthalate |  |  |  |  | 10 |
| Bromodichloromethane  [Dichlorobromomethane] |  |  |  |  | 10 |
| Bromoform |  |  |  |  | 10 |
| Carbon tetrachloride |  |  |  |  | 2 |
| Chlorobenzene |  |  |  |  | 10 |
| Chlorodibromomethane  [Dibromochloromethane] |  |  |  |  | 10 |
| Chloroform |  |  |  |  | 10 |
| Chrysene |  |  |  |  | 5 |
| m-Cresol [3-Methylphenol] |  |  |  |  | 10 |
| o-Cresol [2-Methylphenol] |  |  |  |  | 10 |
| p-Cresol [4-Methylphenol] |  |  |  |  | 10 |
| 1,2-Dibromoethane |  |  |  |  | 10 |
| m-Dichlorobenzene  [1,3-Dichlorobenzene] |  |  |  |  | 10 |
| o-Dichlorobenzene  [1,2-Dichlorobenzene] |  |  |  |  | 10 |
| p-Dichlorobenzene  [1,4-Dichlorobenzene] |  |  |  |  | 10 |
| 3,3'-Dichlorobenzidine |  |  |  |  | 5 |
| 1,2-Dichloroethane |  |  |  |  | 10 |
| 1,1-Dichloroethene  [1,1-Dichloroethylene] |  |  |  |  | 10 |
| Dichloromethane  [Methylene chloride] |  |  |  |  | 20 |
| 1,2-Dichloropropane |  |  |  |  | 10 |
| 1,3-Dichloropropene  [1,3-Dichloropropylene] |  |  |  |  | 10 |
| 2,4-Dimethylphenol |  |  |  |  | 10 |
| Di-n-Butyl phthalate |  |  |  |  | 10 |
| Epichlorohydrin  (1-Chloro-2,3-epoxypropane) |  |  |  |  | --- |
| Ethylbenzene |  |  |  |  | 10 |
| Ethylene Glycol |  |  |  |  | --- |
| Fluoride |  |  |  |  | 500 |
| Hexachlorobenzene |  |  |  |  | 5 |
| Hexachlorobutadiene |  |  |  |  | 10 |
| Hexachlorocyclopentadiene |  |  |  |  | 10 |
| Hexachloroethane |  |  |  |  | 20 |
| 4,4’-Isopropylidenediphenol  (bisphenol A) |  |  |  |  | 1 |
| Methyl ethyl ketone |  |  |  |  | 50 |
| Methyl tert-butyl ether (MTBE) |  |  |  |  | --- |
| Nitrobenzene |  |  |  |  | 10 |
| N-Nitrosodiethylamine |  |  |  |  | 20 |
| N-Nitroso-di-n-butylamine |  |  |  |  | 20 |
| Nonylphenol |  |  |  |  | 333 |
| Pentachlorobenzene |  |  |  |  | 20 |
| Pentachlorophenol |  |  |  |  | 5 |
| Phenanthrene |  |  |  |  | 10 |
| Polychlorinated biphenyls (PCBs) (\*\*) |  |  |  |  | 0.2 |
| Pyridine |  |  |  |  | 20 |
| 1,2,4,5-Tetrachlorobenzene |  |  |  |  | 20 |
| 1,1,2,2-Tetrachloroethane |  |  |  |  | 10 |
| Tetrachloroethene  [Tetrachloroethylene] |  |  |  |  | 10 |
| Toluene |  |  |  |  | 10 |
| 1,1,1-Trichloroethane |  |  |  |  | 10 |
| 1,1,2-Trichloroethane |  |  |  |  | 10 |
| Trichloroethene  [Trichloroethylene] |  |  |  |  | 10 |
| 2,4,5-Trichlorophenol |  |  |  |  | 50 |
| TTHM (Total trihalomethanes) |  |  |  |  | 10 |
| Vinyl chloride |  |  |  |  | 10 |

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

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

TABLE 4 (Instructions, Pages 58-59)

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

1. **Tributyltin**

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

  Yes    No

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

  Manufacturers and formulators of tributyltin or related compounds.

  Painting of ships, boats and marine structures.

  Ship and boat building and repairing.

  Ship and boat cleaning, salvage, wrecking and scaling.

  Operation and maintenance of marine cargo handling facilities and marinas.

  Facilities engaged in wood preserving.

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

1. **Enterococci (discharge to saltwater)**

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

  Yes    No

Domestic wastewater is/will be discharged.

  Yes    No

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

1. **E. coli (discharge to freshwater)**

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

  Yes    No

Domestic wastewater is/will be discharged.

  Yes    No

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

Table 4 for Outfall No.: Click to enter text. ****Samples are (check one):****    ****Composite****    ****Grab****

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

TABLE 5 (Instructions, Page 59)

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

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

  N/A

Table 5 for Outfall No.: Click to enter text. ****Samples are (check one):****    ****Composite****    ****Grab****

| **Pollutant** | **Sample 1 (µg/L)\*** | **Sample 2 (µg/L)\*** | **Sample 3 (µg/L)\*** | **Sample 4 (µg/L)\*** | **MAL (µg/L)\*** |
| --- | --- | --- | --- | --- | --- |
| Aldrin |  |  |  |  | 0.01 |
| Carbaryl |  |  |  |  | 5 |
| Chlordane |  |  |  |  | 0.2 |
| Chlorpyrifos |  |  |  |  | 0.05 |
| 4,4'-DDD |  |  |  |  | 0.1 |
| 4,4'-DDE |  |  |  |  | 0.1 |
| 4,4'-DDT |  |  |  |  | 0.02 |
| 2,4-D |  |  |  |  | 0.7 |
| Danitol [Fenpropathrin] |  |  |  |  | — |
| Demeton |  |  |  |  | 0.20 |
| Diazinon |  |  |  |  | 0.5/0.1 |
| Dicofol [Kelthane] |  |  |  |  | 1 |
| Dieldrin |  |  |  |  | 0.02 |
| Diuron |  |  |  |  | 0.090 |
| Endosulfan I (alpha) |  |  |  |  | 0.01 |
| Endosulfan II (beta) |  |  |  |  | 0.02 |
| Endosulfan sulfate |  |  |  |  | 0.1 |
| Endrin |  |  |  |  | 0.02 |
| Guthion  [Azinphos methyl] |  |  |  |  | 0.1 |
| Heptachlor |  |  |  |  | 0.01 |
| Heptachlor epoxide |  |  |  |  | 0.01 |
| Hexachlorocyclohexane (alpha) |  |  |  |  | 0.05 |
| Hexachlorocyclohexane (beta) |  |  |  |  | 0.05 |
| Hexachlorocyclohexane (gamma) [Lindane] |  |  |  |  | 0.05 |
| Hexachlorophene |  |  |  |  | 10 |
| Malathion |  |  |  |  | 0.1 |
| Methoxychlor |  |  |  |  | 2.0 |
| Mirex |  |  |  |  | 0.02 |
| Parathion (ethyl) |  |  |  |  | 0.1 |
| Toxaphene |  |  |  |  | 0.3 |
| 2,4,5-TP [Silvex] |  |  |  |  | 0.3 |

\* Indicate units if different from µg/L.

TABLE 6 (Instructions, Page 59)

Completion of Table 6 **is required** for all **external outfalls**.

Table 6 for Outfall No.: Click to enter text. ****Samples are (check one):****    ****Composite****    ****Grab****

| **Pollutants** | **Believed**  **Present** | **Believed**  **Absent** | **Sample 1 (mg/L)** | **Sample 2 (mg/L)** | **Sample 3 (mg/L)** | **Sample 4 (mg/L)** | **MAL**  **(µg/L)\*** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Bromide |  |  |  |  |  |  | 400 |
| Color (PCU) |  |  |  |  |  |  | — |
| Nitrate-Nitrite (as N) |  |  |  |  |  |  | — |
| Sulfide (as S) |  |  |  |  |  |  | — |
| Sulfite (as SO3) |  |  |  |  |  |  | — |
| Surfactants |  |  |  |  |  |  | — |
| Boron, total |  |  |  |  |  |  | 20 |
| Cobalt, total |  |  |  |  |  |  | 0.3 |
| Iron, total |  |  |  |  |  |  | 7 |
| Magnesium, total |  |  |  |  |  |  | 20 |
| Manganese, total |  |  |  |  |  |  | 0.5 |
| Molybdenum, total |  |  |  |  |  |  | 1 |
| Tin, total |  |  |  |  |  |  | 5 |
| Titanium, total |  |  |  |  |  |  | 30 |

TABLE 7 (Instructions, Page 60)

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

  N/A

Table 7 for Applicable Industrial Categories

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

\* Test if believed present.

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

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

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

Table 8 for Outfall No.: Click to enter text. ****Samples are (check one):****    ****Composite****    ****Grab****

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

\* Indicate units if different from µg/L.

Table 9 for Outfall No.: Click to enter text. ****Samples are (check one):****    ****Composite****    ****Grab****

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

\* Indicate units if different from µg/L.

Table 10 for Outfall No.: Click to enter text. ****Samples are (check one):****    ****Composite****    ****Grab****

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

\* Indicate units if different from µg/L.

Table 11 for Outfall No.: Click to enter text. ****Samples are (check one):****    ****Composite****    ****Grab****

| **Pollutant** | **Sample 1**  **(µg/L)\*** | **Sample 2**  **(µg/L)\*** | **Sample 3**  **(µg/L)\*** | **Sample 4**  **(µg/L)\*** | **MAL**  **(µg/L)** |
| --- | --- | --- | --- | --- | --- |
| Aldrin |  |  |  |  | 0.01 |
| alpha-BHC  [alpha-Hexachlorocyclohexane] |  |  |  |  | 0.05 |
| beta-BHC  [beta-Hexachlorocyclohexane] |  |  |  |  | 0.05 |
| gamma-BHC  [gamma-Hexachlorocyclohexane] |  |  |  |  | 0.05 |
| delta-BHC  [delta-Hexachlorocyclohexane] |  |  |  |  | 0.05 |
| Chlordane |  |  |  |  | 0.2 |
| 4,4'-DDT |  |  |  |  | 0.02 |
| 4,4'-DDE |  |  |  |  | 0.1 |
| 4,4'-DDD |  |  |  |  | 0.1 |
| Dieldrin |  |  |  |  | 0.02 |
| Endosulfan I (alpha) |  |  |  |  | 0.01 |
| Endosulfan II (beta) |  |  |  |  | 0.02 |
| Endosulfan sulfate |  |  |  |  | 0.1 |
| Endrin |  |  |  |  | 0.02 |
| Endrin aldehyde |  |  |  |  | 0.1 |
| Heptachlor |  |  |  |  | 0.01 |
| Heptachlor epoxide |  |  |  |  | 0.01 |
| PCB 1242 |  |  |  |  | 0.2 |
| PCB 1254 |  |  |  |  | 0.2 |
| PCB 1221 |  |  |  |  | 0.2 |
| PCB 1232 |  |  |  |  | 0.2 |
| PCB 1248 |  |  |  |  | 0.2 |
| PCB 1260 |  |  |  |  | 0.2 |
| PCB 1016 |  |  |  |  | 0.2 |
| Toxaphene |  |  |  |  | 0.3 |

\* Indicate units if different from µg/L.

**Attachment:** Click to enter text.

TABLE 12 (DIOXINS/FURAN COMPOUNDS)

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

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

  2,4,5-trichlorophenoxy acetic acid (2,4,5-T) CASRN 93-76-5

  2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP) CASRN 93-72-1

  2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon) CASRN 136-25-4

  0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel) CASRN 299-84-3

  2,4,5-trichlorophenol (TCP) CASRN 95-95-4

  hexachlorophene (HCP) CASRN 70-30-4

  None of the above

Description: Click to enter text.

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

  Yes    No

Description: Click to enter text.

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

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

| **Compound** | **Toxicity**  **Equivalent**  **Factors** | **Wastewater**  **Concentration**  **(ppq)** | **Wastewater**  **Toxicity**  **Equivalents**  **(ppq)** | **Sludge**  **Concentration**  **(ppt)** | **Sludge**  **Toxicity**  **Equivalents**  **(ppt)** | **MAL (ppq)** |
| --- | --- | --- | --- | --- | --- | --- |
| 2,3,7,8-TCDD | 1 |  |  |  |  | 10 |
| 1,2,3,7,8-PeCDD | 1.0 |  |  |  |  | 50 |
| 2,3,7,8-HxCDDs | 0.1 |  |  |  |  | 50 |
| 1,2,3,4,6,7,8-HpCDD | 0.01 |  |  |  |  | 50 |
| 2,3,7,8-TCDF | 0.1 |  |  |  |  | 10 |
| 1,2,3,7,8-PeCDF | 0.03 |  |  |  |  | 50 |
| 2,3,4,7,8-PeCDF | 0.3 |  |  |  |  | 50 |
| 2,3,7,8-HxCDFs | 0.1 |  |  |  |  | 50 |
| 2,3,4,7,8-HpCDFs | 0.01 |  |  |  |  | 50 |
| OCDD | 0.0003 |  |  |  |  | 100 |
| OCDF | 0.0003 |  |  |  |  | 100 |
| PCB 77 | 0.0001 |  |  |  |  | 500 |
| PCB 81 | 0.0003 |  |  |  |  | 500 |
| PCB 126 | 0.1 |  |  |  |  | 500 |
| PCB 169 | 0.03 |  |  |  |  | 500 |
| Total |  |  |  |  |  |  |

TABLE 13 (HAZARDOUS SUBSTANCES)

Complete Table 13 **is required** for all **external outfalls** as directed below. (Instructions, Pages 60-61)

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

  Yes    No

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

  Yes    No

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

Table 13 for Outfall No.: Click to enter text. ****Samples are (check one):****    ****Composite****    ****Grab****

| **Pollutant** | **CASRN** | **Sample 1**  **(µg/L)** | **Sample 2**  **(µg/L)** | **Sample 3 (µg/L)** | **Sample 4 (µg/L)** | **Analytical**  **Method** |
| --- | --- | --- | --- | --- | --- | --- |
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**INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 3.0: LAND APPLICATION OF EFFLUENT**

This worksheet **is required** for all applications for a permit to disposal of wastewater by land application (i.e., TLAP)).

# Type of Disposal System (Instructions, Page 69)

Check the box next to the type of land disposal requested by this application:

  Irrigation

  Evaporation

  Evapotranspiration beds

  Drip irrigation system   Subsurface application

  Subsurface soils absorption

  Surface application

  Other, specify: Click to enter text.

# Land Application Area (Instructions, Page 69)

Land Application Area Information

| **Effluent Application**  **(gallons/day)** | **Irrigation Acreage**  **(acres)** | **Describe land use &**  **indicate type(s) of crop(s)** | **Public Access?**  **(Y/N)** |
| --- | --- | --- | --- |
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# Annual Cropping Plan (Instructions, Page 69)

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

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

**Attachment:**

# Well and Map Information (Instructions, Page 70)

1. Check each box to confirm the required information is shown and labeled on the attached USGS map:

  The exact boundaries of the land application area

  On-site buildings

  Waste-disposal or treatment facilities

  Effluent storage and tailwater control facilities

  Buffer zones

  All surface waters in the state onsite and within 500 feet of the property boundaries

  All water wells within ½-mile of the disposal site, wastewater ponds, or property boundaries

  All springs and seeps onsite and within 500 feet of the property boundaries

**Attachment:** Click to enter text.

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

Well and Map Information Table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Well ID** | **Well Use** | **Producing?**  **Y/N/U** | **Open, cased, capped,**  **or plugged?** | **Proposed Best**  **Management Practice** |
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**Attachment:** Click to enter text.

1. Groundwater monitoring wells or lysimeters are/will be installed around the land application site or wastewater ponds.

  Yes    No

If **yes**, provide the existing/proposed location of the monitoring wells or lysimeters on the site map attached for Item 4.a. Additionally, attach information on the depth of the wells or lysimeters, sampling schedule, and monitoring parameters for TCEQ review, possible modification, and approval.

**Attachment:** Click to enter text.

1. Attach a short groundwater technical report using 30 TAC § 309.20(a)(4) as guidance. **Attachment:**

# Soil Map and Soil Information (Instructions, Page 71)

Check each box to confirm that the following information is attached:

1. USDA NRCS Soil Survey Map depicting the area to be used for land application with the locations identified by fields and crops.
2. Breakdown of acreage and percent of total acreage for each soil type.
3. Copies of laboratory soil analyses. **Attachment:** Click to enter text.

# Effluent Monitoring Data (Instructions, Page 72)

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

Table 14 for Outfall No.: Click to enter text. ****Samples are (check one):****    ****Composite****    ****Grab****

| **Date**  **(mo/yr)** | **Daily Avg**  **Flow (gpd)** | **BOD5**  **(mg/L)** | **TSS**  **(mg/L)** | **Nitrogen**  **(mg/L)** | **Conductivity**  **(mmhos/cm)** | **Total acres irrigated** | **Hydraulic Application rate (acre-feet/month)** |
| --- | --- | --- | --- | --- | --- | --- | --- |
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1. Use this table to provide effluent analysis for parameters regulated in the current permit which are not listed in Table 14.

Additional Parameter Effluent Analysis

| **Date (mo/yr)** |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
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1. Attach an explanation of all persistent excursions to permitted parameters and corrective actions taken. **Attachment:** Click to enter text.

# Pollutant Analysis (Instructions, Page 72)

1. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): Click to enter text.
2. Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
3. Complete Tables 15 and 16.

Table 15 for Outfall No.: Click to enter text. ****Samples are (check one):****    ****Composite****    ****Grab****

| **Pollutant** | **Sample 1 (mg/L)** | **Sample 2 (mg/L)** | **Sample 3 (mg/L)** | **Sample 4 (mg/L)** |
| --- | --- | --- | --- | --- |
| BOD (5-day) |  |  |  |  |
| CBOD (5-day) |  |  |  |  |
| Chemical oxygen demand |  |  |  |  |
| Total organic carbon |  |  |  |  |
| Dissolved oxygen |  |  |  |  |
| Ammonia nitrogen |  |  |  |  |
| Total suspended solids |  |  |  |  |
| Nitrate nitrogen |  |  |  |  |
| Total organic nitrogen |  |  |  |  |
| Total phosphorus |  |  |  |  |
| Oil and grease |  |  |  |  |
| Total residual chlorine |  |  |  |  |
| Total dissolved solids |  |  |  |  |
| Sulfate |  |  |  |  |
| Chloride |  |  |  |  |
| Fluoride |  |  |  |  |
| Total alkalinity (mg/L as CaCO3) |  |  |  |  |
| Temperature (°F) |  |  |  |  |
| pH (standard units) |  |  |  |  |

Table 16 for Outfall No.: Click to enter text. ****Samples are (check one):****    ****Composite****    ****Grab****

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

**INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 3.1: SURFACE LAND APPLICATION AND APPLICATION**

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

# Edwards Aquifer (Instructions, Page 73)

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

  Yes    No

If **no**, proceed to Item 2. If **yes**, complete Items 1.b **and** 1.c.

1. Check the box next to the subchapter applicable to the facility.

  30 TAC Chapter 213, Subchapter A

  30 TAC Chapter 213, Subchapter B

1. If 30 TAC Chapter 213, Subchapter A applies, attach **either**: 1) a Geologic Assessment (if conducted in accordance with 30 TAC § 213.5) **or** 2) a report that contains the following:

* A description of the surface geological units within the proposed land application site and wastewater pond area.
* The location and extent of any sensitive recharge features in the land application site and wastewater pond area
* A list of any proposed BMPs to protect the recharge features.

**Attachment:** Click to enter text.

# Surface Spray/Irrigation (Instructions, Page 73)

1. Provide the following information on the irrigation operations:

Area under irrigation (acres): Click to enter text.

Design application rate (acre-ft/acre/yr): Click to enter text.

Design application frequency (hours/day): Click to enter text.

Design application frequency (days/week): Click to enter text.

Design total nitrogen loading rate (lbs nitrogen/acre/year): Click to enter text.

Average slope of the application area (percent): Click to enter text.

Maximum slope of the application area (percent): Click to enter text.

Irrigation efficiency (percent): Click to enter text.

Effluent conductivity (mmhos/cm): Click to enter text.

Soil conductivity (mmhos/cm): Click to enter text.

Curve number: Click to enter text.

Describe the application method and equipment: Click to enter text.

1. Attach a detailed engineering report which includes a water balance, storage volume calculations, and a nitrogen balance. **Attachment:** Click to enter text.

# Evaporation Ponds (Instructions, Page 74)

1. Daily average effluent flow into ponds: Click to enter text. gallons per day
2. Attach a separate engineering report of evaporation calculations for average long-term and worst-case critical conditions. **Attachment:** Click to enter text.

# Evapotranspiration Beds (Instructions, Page 74)

1. Provide the following information on the evapotranspiration beds:

Number of beds: Click to enter text.

Area of bed(s) (acres): Click to enter text.

Depth of bed(s) (feet): Click to enter text.

Void ratio of soil in the beds: Click to enter text.

Storage volume within the beds (include units): Click to enter text.

Description of any lining to protect groundwater: Click to enter text.

1. Attach a certification by a licensed Texas professional engineer that the liner meets TCEQ requirements. **Attachment:** Click to enter text.
2. Attach a separate engineering report with water balance, storage volume calculations, and description of the liner. **Attachment:** Click to enter text.

# Overland Flow (Instructions, Page 74)

1. Provide the following information on the overland flow:

Area used for application (acres): Click to enter text.

Slopes for application area (percent): Click to enter text.

Design application rate (gpm/foot of slope width): Click to enter text.

Slope length (feet): Click to enter text.

Design BOD5 loading rate (lbs BOD5/acre/day): Click to enter text.

Design application frequency (hours/day): Click to enter text.

Design application frequency (days/week): Click to enter text.

1. Attach a separate engineering report with the method of application and design requirements according to 30 TAC § 217.212. **Attachment:** Click to enter text.

**INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 3.2: SUBSURFACE IRRIGATION (NON-DRIP)**

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

  Check the box to confirm the Class V Injection Well Inventory/Authorization Form (Worksheet 9.0) has been submitted to the TCEQ UIC Permits Team as directed.

# Edwards Aquifer (Instructions, Page 75)

1. The subsurface system is/will be located on the Edwards Aquifer Recharge Zone, as mapped by TCEQ?

  Yes    No

1. The subsurface system is/will be located on the Edwards Aquifer Transition Zone, as mapped by TCEQ?

  Yes    No

If **yes** to Item 1.a **or** 1.b, the subsurface system may be prohibited by 30 TAC § 213.8. Contact the Water Quality Assessment Section at (512) 239-4671 for a preapplication meeting.

# Subsurface Application (Instructions, Page 75)

1. Check the box next to the type of subsurface land disposal system requested:

  Conventional drainfield, beds, or trenches

  Low pressure dosing

  Other: Click to enter text.

1. Provide the following information on the irrigation operations:

Application area (acres): Click to enter text.

Area of drainfield (square feet): Click to enter text.

Application rate (gal/square ft/day): Click to enter text.

Depth to groundwater (feet): Click to enter text.

Area of trench (square feet): Click to enter text.

Dosing duration per area (hours): Click to enter text.

Number of beds: Click to enter text.

Dosing amount per area (inches/day): Click to enter text.

Soil infiltration rate (inches/hour): Click to enter text.

Storage volume (gallons): Click to enter text.

Area of bed(s) (square feet): Click to enter text.

Soil classification: Click to enter text.

1. Attach a separate engineering report using 30 TAC § 309.20, Subchapter C, Land Disposal of Sewage Effluent as guidance, excluding items b(3)(A) and b(3)(B). Include a description of the schedule of dosing basin rotation. **Attachment:** Click to enter text.

**INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 3.3: SUBSURFACE AREA DRIP DISPERSAL SYSTEMS**

This worksheet **is required** for all applications for a permit to dispose of wastewater using a subsurface area drip dispersal system (SADDS).

  Check the box to confirm the Class V Injection Well Inventory/Authorization Form (Worksheet 9.0) has been submitted to the TCEQ UIC Permits Team as directed.

# Edwards Aquifer (Instructions, Page 76)

1. The subsurface system is/will be located on the Edwards Aquifer Recharge Zone, as mapped by TCEQ?

  Yes    No

1. The subsurface system is/will be located on the Edwards Aquifer Transition Zone, as mapped by TCEQ?

  Yes    No

If **yes** to Item 1.a **or** 1.b, the subsurface system may be prohibited by 30 TAC § 213.8. Contact the Water Quality Assessment Section at (512) 239-4671 for a preapplication meeting.

# Administrative Information (Instructions, Page 76)

1. Provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the treatment facility: Click to enter text.
2. The owner of the land where the WWTF is/will be located is the same as the owner of the WWTF.

  Yes    No

If **no**, provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the owner of the land where the WWTF is/will be located: Click to enter text.

1. Provide the legal name of the owner of the SADDS: Click to enter text.
2. The owner of the SADDS is the same as the owner of the WWTF or the site where the WWTF is/will be located.

  Yes    No

If **no**, identify the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in Item 1.c: Click to enter text.

1. Provide the legal name of the owner of the land where the SADDS is located: Click to enter text.
2. The owner of the land where the SADDS is/will be located is the same as owner of the WWTF, the site where the WWTF is located, or the owner of the SADDS.

  Yes    No

If **no**, provide the legal name of all corporations or other business entities managed, owned, or otherwise closely related to the entity identified in item 1.e: Click to enter text.

# SADDS (Instructions, Page 77)

1. Check the box next to the type SADDS requested by this application:

  Subsurface drip/trickle irrigation

  Surface drip irrigation

  Other: Click to enter text.

1. Attach a description of the SADDS proposed/used by the facility (see instructions for guidance). **Attachment:** Click to enter text.
2. Provide the following information on the SADDS:

Application area (acres): Click to enter text.

Soil infiltration rate (inches/hour): Click to enter text.

Average slope of the application area: Click to enter text.

Maximum slope of the application area: Click to enter text.

Storage volume (gallons): Click to enter text.

Major soil series: Click to enter text.

Depth to groundwater (feet): Click to enter text.

Effluent conductivity (mmhos/cm): Click to enter text.

1. The facility is/will be located west of the boundary shown in 30 TAC § 222.83 **and** using a vegetative cover of non-native grasses over seeded with cool-season grasses.

  Yes    No

If **yes**, the facility may propose a hydraulic application rate up to, but not to exceed, 0.1 gal/ft2/day.

1. The facility is/will be located east of the boundary shown in 30 TAC § 222.83 **or** is the facility proposing any crop other than non-native grasses.

  Yes    No

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

1. The facility has or plans to submit an alternative method to calculate the hydraulic application rate for approval by the ED.

  Yes    No

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

* Hydraulic application rate (gal/square foot/day): Click to enter text.
* Nitrogen application rate (gal/square foot/day): Click to enter text.

1. Provide the following dosing information:

Number of doses per day: Click to enter text.

Dosing duration per area (hours): Click to enter text.

Rest period between doses (hours): Click to enter text.

Dosing amount per area (inches/day): Click to enter text.

Number of zones: Click to enter text.

1. The system is/will be a surface drip irrigation system using existing native vegetation as a crop?

  Yes    No

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

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

**Attachment:** Click to enter text.

* Attach a separate engineering report using 30 TAC § 309.20, Subchapter C, Land Disposal of Sewage Effluent as guidance, excluding items b(3)(A) and b(3)(B). Include a description of the schedule of dosing basin rotation.

**Attachment:** Click to enter text.

# Required Plans (Instructions, Page 78)

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

**Attachment:** Click to enter text.

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

**Attachment:** Click to enter text.

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

**Attachment:** Click to enter text.

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

**Attachment:** Click to enter text.

# Flood and Run-On Protection (Instructions, Page 79)

1. Is the existing/proposed SADDS located within the 100-year frequency flood level?

  Yes    No

Source: Click to enter text.

If **yes**, describe how the site will be protected from inundation: Click to enter text.

1. Is the existing/proposed SADDS within a designated floodway?

  Yes    No

If **yes**, attach either the FEMA flood map or alternate information used to make this determination. **Attachment:** Click to enter text.

# Surface Waters in The State (Instructions, Page 79)

1. Attach a buffer map which shows the appropriate buffers on surface waters in the state, water wells, and springs/seeps. **Attachment:** Click to enter text.
2. The facility has or plans to request a buffer variance from water wells or waters in the state?

  Yes    No

If **yes**, attach the additional information required in 30 TAC § 222.81(c). **Attachment:** Click to enter text.

**INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 4.0: RECEIVING WATERS**

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

# Domestic Drinking Water Supply (Instructions, Page 80)

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

  Yes    No

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

1. The legal name of the owner of the drinking water supply intake: Click to enter text.
2. The distance and direction from the outfall to the drinking water supply intake: Click to enter text.
3. Locate and identify the intake on the USGS 7.5-minute topographic map provided for Administrative Report 1.0.

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

# Discharge Into Tidally Influenced Waters (Instructions, Page 80)

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

1. Width of the receiving water at the outfall: Click to enter text. feet
2. Are there oyster reefs in the vicinity of the discharge?

  Yes    No

If **yes**, provide the distance and direction from the outfall(s) to the oyster reefs: Click to enter text.

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

  Yes    No

If **yes**, provide the distance and direction from the outfall(s) to the grasses: Click to enter text.

# Classified Segment (Instructions, Page 80)

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

  Yes    No

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

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

# Description of Immediate Receiving Waters (Instructions, Page 80)

1. Name of the immediate receiving waters: Click to enter text.
2. Check the appropriate description of the immediate receiving waters:

  Lake or Pond

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

  Man-Made Channel or Ditch

  Stream or Creek

  Freshwater Swamp or Marsh

  Tidal Stream, Bayou, or Marsh

  Open Bay

  Other, specify:

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

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

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

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

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

  Perennial (normally flowing)

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

  USGS flow records

  personal observation

  historical observation by adjacent landowner(s)

  other, specify: Click to enter text.

1. List the names of all perennial streams that join the receiving water within three miles downstream of the discharge point: Click to enter text.
2. The receiving water characteristics change within three miles downstream of the discharge (e.g., natural or man-made dams, ponds, reservoirs, etc.).

  Yes    No

If **yes**, describe how: Click to enter text.

1. General observations of the water body during normal dry weather conditions: Click to enter text.

Date and time of observation: Click to enter text.

1. The water body was influenced by stormwater runoff during observations.

  Yes    No

If **yes**, describe how: Click to enter text.

# General Characteristics of Water Body (Instructions, Page 81)

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

  oil field activities

  agricultural runoff

  upstream discharges   urban runoff

  septic tanks

  other, specify: Click to enter text.

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

  livestock watering

  non-contact recreation

  domestic water supply

  contact recreation

  fishing   industrial water supply

  irrigation withdrawal

  navigation

  picnic/park activities

  other, specify: Click to enter text.

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

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

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

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

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

**INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 4.1: WATERBODY PHYSICAL CHARACTERISTICS**

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

Complete the transects downstream of the existing or proposed discharges.

# Data Collection (Instructions, Page 82)

1. Date of study: Click to enter text. Time of study: Click to enter text.

Waterbody name: Click to enter text.

General location: Click to enter text.

1. Type of stream upstream of an existing discharge or downstream of a proposed discharge (check only one):

  perennial    intermittent with perennial pools    impoundment

1. No. of defined stream bends:

Well: Click to enter text. Moderately: Click to enter text. Poorly: Click to enter text.

1. No. of riffles: Click to enter text.
2. Evidence of flow fluctuations (check one):

  Minor    Moderate    Severe

1. Provide the observed stream uses and where there is evidence of channel obstructions/modifications: Click to enter text.
2. Complete the following table with information regarding the transect measurements.

Stream Transect Data

| Transect Location | Habitat Type\* | Water Surface Width (ft) | **Stream Depths (ft)\*\*** | **Stream Depths (ft)** | **Stream Depths (ft)** | **Stream Depths (ft)** | Stream Depths (ft)\*\* | **Stream Depths (ft)** | **Stream Depths (ft)** | **Stream Depths (ft)** | **Stream Depths (ft)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
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\* riffle, run, glide, or pool

\*\* channel bed to water surface

# Summarize Measurements (Instructions, Page 83)

Provide the following information regarding the transect measurements:

Streambed slope of entire reach (from USGS map in ft. /ft.): Click to enter text.

Approximate drainage area above the most downstream transect from USGS map or county highway map (square miles): Click to enter text.

Length of stream evaluated (ft): Click to enter text.

Number of lateral transects made: Click to enter text.

Average stream width (ft): Click to enter text.

Average stream depth (ft): Click to enter text.

Average stream velocity (ft/sec): Click to enter text.

Instantaneous stream flow (ft3/sec): Click to enter text.

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

Flow fluctuations (i.e., minor, moderate, or severe): Click to enter text.

Size of pools (i.e., large, small, moderate, or none): Click to enter text.

Maximum pool depth (ft): Click to enter text.

Total number of stream bends: Click to enter text.

Number well defined: Click to enter text.

Number moderately defined: Click to enter text.

Number poorly defined: Click to enter text.

Total number of riffles: Click to enter text.

**INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 5.0: SEWAGE SLUDGE MANAGEMENT AND DISPOSAL**

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

# Sewage Sludge Solids Management Plan (Instructions, Page 84)

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

  Yes    No

1. Does or will the facility discharge in the Lake Houston watershed?

  Yes    No

If **yes** to either Item 1.a **or** 1.b, attach a solids management plan. **Attachment:** Click to enter text.

# Sewage Sludge Management and Disposal (Instructions, Page 84)

1. Check the box next to the sludge disposal method(s) authorized under the facility’s existing permit (check all that apply).

  Permitted landfill

  Marketing and distribution by the permittee, attach Form TCEQ-00551

  Registered land application site, attach Form TCEQ-00565

  Processed by the permittee, attach Form TCEQ-00744

  Surface disposal site (sludge monofill), attach Form TCEQ-00744

  Transported to another WWTP

  Beneficial land application, attach Form TCEQ-10451

  Incineration, attach Form TCEQ-00744

Based on the selection(s) made above, complete and attach the required TCEQ forms as directed. Failure to submit the required TCEQ form will result in delays in processing the application

**Attachment:** Click to enter text.

1. Provide the following information for each disposal site:

Disposal site name: Click to enter text.

TCEQ Permit/Registration Number: Click to enter text.

County where disposal site is located: Click to enter text.

1. Method of sewage sludge transportation:

  truck    train    pipe    other: Click to enter text.

TCEQ Hauler Registration Number: Click to enter text.

1. Sludge is transported as a:

  liquid    semi-liquid    semi-solid    solid

1. Purpose of land application:    reclamation    soil conditioning    N/A
2. If sewage sludge is transported to another WWTP for treatment, attach a written statement or copy of contractual agreements confirming that the WWTP identified above will accept and be responsible for the sludge from this facility for the life of the permit (at least 5 years).

**Attachment:** Click to enter text.

# Authorization for Sewage Sludge Disposal (Instructions, Page 85)

If this is a new or major amendment application which requests authorization of a new sewage sludge disposal method, check the new sewage disposal method(s) requested for authorization (check all that apply):

  Marketing and distribution by the permittee, attach Form TCEQ-00551

  Processed by the permittee, attach Form TCEQ-00744

  Surface disposal site (sludge monofill), attach Form TCEQ-00744

  Beneficial land application, attach Form TCEQ-10451

  Incineration, attach Form TCEQ-00744

Based on the selection(s) made above, complete and attach any required TCEQ forms, as directed. Failure to submit the required TCEQ form will result in delays in processing the application.

**Attachment:** Click to enter text.

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

**INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 6.0: INDUSTRIAL WASTE CONTRIBUTION**

The following information **is required** for all applications for publicly-owned treatment works (POTWs).

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

# All POTWs (Instructions, Page 86)

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

Industrial User Information

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

1. In the past three years, has the POTW experienced treatment plant interference?

  Yes    No

If **yes**, identify the date(s), duration, nature of interference, and probable cause(s) and possible source(s) of each interference event. Include the names of the IU(s) that may have caused the interference: Click to enter text.

1. In the past three years, has the POTW experienced pass-through?

  Yes    No

If **yes**, identify the date(s), duration, pollutants passing through the treatment plant, and probable cause(s) and possible source(s) of each pass-through event. Include the names of the IU(s) that may have caused the pass-through: Click to enter text.

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

  Yes    No

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

If **no**, skip Item 2 and answer all questions in Item 3 for each SIU and CIU.

# POTWs With Approved Pretreatment Programs or Those Required To Develop A Pretreatment Program (Instructions, Page 86)

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

  Yes    No

If **yes**, include an attachment which identifies all substantial modifications that have not been submitted to the TCEQ and the purpose of the modifications.

**Attachment:** Click to enter text.

1. Have there been any non-substantial modifications to the POTW’s approved pretreatment program that have not been submitted to the Approval Authority (TCEQ)?

  Yes    No

If **yes**, include an attachment which identifies all non-substantial modifications that have not been submitted to the TCEQ and the purpose of the modification.

**Attachment:** Click to enter text.

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

Effluent Parameters Measured Above the MAL

| **Pollutant** | **Concentration** | **MAL** | **Units** | **Date** |
| --- | --- | --- | --- | --- |
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**Attachment:** Click to enter text.

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

  Yes    No

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

# Significant Industrial User and Categorical Industrial User Information (Instructions, Pages 88-87)

POTWs that **do not** have an approved pretreatment program **are required** to provide the following information for each SIU and CIU:

1. Mr. or Ms.: Click to enter text. First/Last Name: Click to enter text.

Organization Name: Click to enter text. SIC Code: Click to enter text.

Phone number: Click to enter text. Email address: Click to enter text.

Physical Address: Click to enter text. City/State/ZIP Code: Click to enter text.

**Attachment:** Click to enter text.

1. Describe the industrial processes or other activities that affect or contribute to the SIU(s) or CIU(s) discharge (e.g., process and non-process wastewater): Click to enter text.
2. Provide a description of the principal products(s) or service(s) performed: Click to enter text.
3. Flow rate information

Flow Rate Information

| **Effluent Type** | **Discharge Day**  **(gallons per day)** | **Discharge Frequency**  **(Continuous, batch, or intermittent)** |
| --- | --- | --- |
| Process Wastewater |  |  |
| Non-process Wastewater |  |  |

1. Pretreatment Standards
2. Is the SIU or CIU subject to technology-based local limits as defined in the application instructions?

  Yes    No

1. Is the SIU subject to categorical pretreatment standards?

  Yes    No

If **yes**, provide the category and subcategory or subcategories in the SIUs Subject To Categorical Pretreatment Standards table.

SIUs Subject to Categorical Pretreatment Standards

| **Category in 40 CFR** | **Subcategory in 40 CFR** | **Subcategory in 40 CFR** | **Subcategory in 40 CFR** | **Subcategory in 40 CFR** |
| --- | --- | --- | --- | --- |
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1. Has the SIU or CIU caused or contributed to any problem(s) (e.g., interferences, pass through, odors, corrosion, blockages) at the POTW in the past three years?

  Yes    No

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

**INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 7.0: STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES**

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

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

# Applicability (Instructions, Page 89)

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

  Yes    No

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

# Stormwater Coverage (Instructions, Page 89)

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

Authorization Coverage

| **Outfall** | **Authorization under MSGP** | **Authorized Under Individual Permit** |
| --- | --- | --- |
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If **all** existing/proposed outfalls which discharge stormwater associated with industrial activities (and any of the allowable non-stormwater discharges) are **authorized under the MSGP**, **stop** here.

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

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

# Site Map (Instructions, Page 90)

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

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

  Check the box to confirm all above information was provided on the facility site map(s).

**Attachment:** Click to enter text.

# Facility/Site Information (Instructions, Page 90)

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

Impervious Surfaces

| **Outfall** | **Area of Impervious Surface**  **(include units)** | **Total Area Drained**  **(include units)** |
| --- | --- | --- |
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1. Provide the following local area rainfall information and the source of the information.

Wettest month: Click to enter text.

Average rainfall for wettest month (total inches): Click to enter text.

25-year, 24-hour rainfall (inches): Click to enter text.

Source: Click to enter text.

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

# Pollutant Analysis (Instructions, Page 91)

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

Table 17 for Outfall No.: Click to enter text.

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

\* Taken during first 30 minutes of storm event

\*\* Flow-weighted composite sample

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

Table 18 for Outfall No.: Click to enter text.

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

\* Taken during first 30 minutes of storm event

\*\* Flow-weighted composite sample

**Attachment:** Click to enter text.

# Storm Event Data (Instructions, Page 93)

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

Date of storm event: Click to enter text.

Duration of storm event (minutes): Click to enter text.

Total rainfall during storm event (inches): Click to enter text.

Number of hours the between beginning of the storm measured and the end of the previous measurable storm event (hours): Click to enter text.

Maximum flow rate during rain event (gallons/minute): Click to enter text.

Total stormwater flow from rain event (gallons): Click to enter text.

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

**INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 8.0: AQUACULTURE**

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

# Facility/Site Information (Instructions, Page 94)

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

Production Pond Descriptions

| **Number of Ponds** | **Dimensions**  **(include units)** | **Area of Each Pond**  **(include units)** | **Number of Ponds x Area of Ponds (include Units)** |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

Total surface area of all ponds: Click to enter text.

Raceway Descriptions

| **Number of Raceways** | **Dimensions (include units)** |
| --- | --- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

Fabricated Tank Descriptions

| **Number of Tanks** | **Dimensions (include units)** |
| --- | --- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

1. Does the facility have a TPWD-approved emergency plan?

  Yes    No

If **yes**, attach a copy of the approved plan.

**Attachment:** Click to enter text.

1. Does the facility have an aquatic plant transplant authorization?

  Yes    No

If **yes**, attach a copy of the authorization letter.

**Attachment:** Click to enter text.

1. Provide the number of aquaculture facilities located within 25-miles of this facility: Click to enter text.

# Species Identification (Instructions, Page 95)

Complete the following table regarding each species raised, source, origin, and disease status of the stock. Identify and attach copies of any current relevant authorizations or permits that authorize the species.

Stock Species Information

| **Species** | **Source of Stock** | **Origin of Stock** | **Disease Status** | **Authorizations** |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**Attachment:** Click to enter text.

# Stock Management Plan (Instructions, Page 95)

Attach a detailed stock management plan**:** Click to enter text.

# Water Treatment and Discharge Description (Instructions, Page 96)

Attach a detailed description of the discharge practices and water treatment process(es)**:** Click to enter text.

# Solid Waste Management (Instructions, Page 96)

Attach a description of the solid waste-disposal practices**:** Click to enter text.

# Site Assessment Report (Instructions, Page 96)

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

WORKSHEET 9.0

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

CLASS V INJECTION WELL INVENTORY/AUTHORIZATION FORM

Submit the completed form to:

For TCEQ Use Only

Reg. No.\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date Received\_\_\_\_\_\_\_\_\_\_\_

Date Authorized\_\_\_\_\_\_\_\_\_\_

TCEQ

IUC Permits Team

Radioactive Materials Division

MC-233

PO Box 13087

Austin, Texas 78711-3087

512-239-6466

# General Information (Instructions Page 99)

1. **TCEQ Program Area**

Program Area (PST, VCP, IHW, etc.): Click to enter text.

Program ID: Click to enter text.

Contact Name: Click to enter text.

Phone Number: Click to enter text.

1. **Agent/Consultant Contact Information**

Contact Name: Click to enter text.

Address: Click to enter text.

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

Phone Number: Click to enter text.

1. **Owner/Operator Contact Information**

  Owner    Operator

Owner/Operator Name: Click to enter text.

Contact Name: Click to enter text.

Address: Click to enter text.

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

Phone Number: Click to enter text.

1. **Facility Contact Information**

Facility Name: Click to enter text.

Address: Click to enter text.

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

Location description (if no address is available): Click to enter text.

Facility Contact Person: Click to enter text.

Phone Number: Click to enter text.

1. **Latitude and Longitude, in degrees-minutes-seconds**

Latitude: Click to enter text.

Longitude: Click to enter text.

Method of determination (GPS, TOPO, etc.): Click to enter text.

Attach topographic quadrangle map as attachment A.

1. **Well Information**

Type of Well Construction, select one:

  Vertical Injection

  Subsurface Fluid Distribution System

  Infiltration Gallery

  Temporary Injection Points

  Other, Specify: Click to enter text.

Number of Injection Wells: Click to enter text.

1. **Purpose**

Detailed Description regarding purpose of Injection System:

|  |
| --- |
| Click to enter text. |

Attach a Site Map as Attachment B (Attach the Approved Remediation Plan, if appropriate.)

1. **Water Well Driller/Installer**

Water Well Driller/Installer Name: Click to enter text.

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

Phone Number: Click to enter text.

License Number: Click to enter text.

# Proposed Down Hole Design

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

Down Hole Design Table

| **Name of String** | **Size** | **Setting Depth** | **Sacks Cement/Grout – Slurry Volume – Top of Center** | **Hole Size** | **Weight (lbs/ft) PVC/Steel** |
| --- | --- | --- | --- | --- | --- |
| Casing |  |  |  |  |  |
| Tubing |  |  |  |  |  |
| Screen |  |  |  |  |  |

# Proposed Trench System, Subsurface Fluid Distribution System, or Infiltration Gallery

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

System(s) Dimensions: Click to enter text.

System(s) Construction: Click to enter text.

# Site Hydrogeological and Injection Zone Data

1. Name of Contaminated Aquifer: Click to enter text.
2. Receiving Formation Name of Injection Zone: Click to enter text.
3. Well/Trench Total Depth: Click to enter text.
4. Surface Elevation: Click to enter text.
5. Depth to Ground Water: Click to enter text.
6. Injection Zone Depth: Click to enter text.
7. Injection Zone vertically isolated geologically?    Yes    No

Impervious Strata between Injection Zone and nearest Underground Source of Drinking Water:

Name: Click to enter text.

Thickness: Click to enter text.

1. Attach a list of contaminants and the levels (ppm) in contaminated aquifer as Attachment E.
2. Attach the Horizontal and Vertical extent of contamination and injection plume as Attachment F.
3. Attach Formation (Injection Zone) Water Chemistry (Background levels) TDS, etc., as Attachment G.
4. Injection Fluid Chemistry in PPM at point of injection. Attach as Attachment H.
5. Lowest Known Depth of Ground Water with < 10,000 PPM TDS: Click to enter text.
6. Maximum injection Rate/Volume/Pressure: Click to enter text.
7. Water wells within 1/4 mile radius (attach map as Attachment I): Click to enter text.
8. Injection wells within 1/4 mile radius (attach map as Attachment J): Click to enter text.
9. Monitor wells within 1/4 mile radius (attach drillers logs and map as Attachment K): Click to enter text.
10. Sampling frequency: Click to enter text.
11. Known hazardous components in injection fluid: Click to enter text.

# Site History

1. Type of Facility: Click to enter text.
2. Contamination Dates: Click to enter text.
3. Original Contamination (VOCs, TPH, BTEX, etc.) and Concentrations. Attach as Attachment L.
4. Previous Remediation. Attach results of any previous remediation as Attachment M.

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

# CLASS V INJECTION WELL DESIGNATIONS

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

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

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

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

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

5F01 Agricultural Drainage (IW that receive agricultural runoff)

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

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

5W09 Untreated Sewage

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

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

5W12 WTTP disposal

5W20 Industrial Process Waste-disposal Wells

5W31 Septic System (Well Disposal method)

5W32 Septic System Drainfield Disposal

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

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

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

5X27 Other Wells

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

5X29 Abandoned Drinking Water Wells (waste disposal)

**INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 10.0: QUARRIES IN THE JOHN GRAVES SCENIC RIVERWAY**

This worksheet **is required** for all applications for individual permits for a municipal solid waste facility or mining facility located within a Water Quality Protection Area in the John Graves Scenic Riverway. **Note:** **Review 30 TAC §§ 311.71-311.82 thoroughly prior to completing any portion of this worksheet.**

# Exclusions (Instructions, Page 100)

1. Is this a municipal solid waste facility?

  Yes    No

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

  Yes    No

1. Is this a coal mine?

  Yes    No

1. Is this facility mining clay and/or shale for use in manufacturing structural clay products?

  Yes    No

If **yes** to **any** above question, **stop here**. The facility is required to maintain documentation, as outlined in 30 TAC § 311.72(c), at the facility to demonstrate the exclusion(s).

# Location of the Quarry (Instructions, Page 101)

Check the box next to the distance between the quarry and the nearest navigable water body:

  < 200 feet    200 feet – 1,500 feet    1,500 feet – 1 mile    > 1 mile

**NOTE:** The construction or operation of any new quarry or expansion of any existing quarry **is prohibited** within 200 feet of any water body located within a Water Quality Protection Area in the John Graves Scenic Riverway.

# Additional Requirements (Instructions, Page 101)

Use the table in the Instructions to determine if additional application requirements apply to the facility based on distance between the quarry and the nearest waterway. Attach as appropriate or enter N/A.

1. Attach a Restoration Plan: Click to enter text.
2. Amount of Financial Assurance for Restoration: $ Click to enter text.

Mechanism: Click to enter text.

1. Attach a Technical Demonstration: Click to enter text.
2. Attach a Reclamation Plan: Click to enter text.
3. Amount of Financial Assurance for Reclamation: $ Click to enter text.

Mechanism: Click to enter text.

**INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 11.0: COOLING WATER SYSTEM INFORMATION**

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

# Cooling Water System Data (Instructions, Page 104)

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

Cooling Water System Data

| **Parameter** | **Volume (include units)** |
| --- | --- |
| Total DIF |  |
| Total AIF |  |
| Intake Flow Use(s) (%) |  |
| Contact cooling |  |
| Non-contact cooling |  |
| Process Wastewater |  |
| Other |  |

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

**Attachment:** Click to enter text.

# Cooling Water Intake Structure(s) Data (Instructions, Page 105)

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

Cooling Water Intake Structure(s) Data

| **CWIS ID** |  |  |  |  |
| --- | --- | --- | --- | --- |
| DIF (include units) |  |  |  |  |
| AIF (include units) |  |  |  |  |
| Intake Flow Use(s) (%) |  |  |  |  |
| Contact cooling |  |  |  |  |
| Non-contact cooling |  |  |  |  |
| Process Wastewater |  |  |  |  |
| Other |  |  |  |  |
| Latitude (decimal degrees) |  |  |  |  |
| Longitude (decimal degrees) |  |  |  |  |

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

**Attachment:** Click to enter text.

# Source Water Physical Data (Instructions, Page 105)

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

Source Waterbody Data

| **CWIS ID** |  |  |  |  |
| --- | --- | --- | --- | --- |
| Source Waterbody |  |  |  |  |
| Mean Annual Flow |  |  |  |  |
| Source |  |  |  |  |

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

**Attachment:** Click to enter text.

# Operational Status (Instructions, Page 106)

1. Is this application for a power production or steam generation facility?

  Yes    No

If **no**, proceed to Item 4.b. If **yes**, provide the following information as an attachment:

1. Describe the operating status of each individual unit, including age, capacity utilization rate (or equivalent) for the previous five years (a minimum of 60 months), and any seasonal changes in operation.
2. Describe any extended or unusual outages or other factors which significantly affect current data for flow, impingement, entrainment.
3. Identify any operating unit with a capacity utilization rate of less than 8 percent averaged over a contiguous period of two years (a minimum of 24 months).
4. Describe any major upgrades completed within the last 15 years, including but not limited to boiler replacement, condenser replacement, turbine replacement, or changes of fuel type.

**Attachment:** Click to enter text.

1. Process Units
2. Is this application for a facility which has process units that use cooling water (other than for power production or steam generation)?

  Yes    No

If **no**, proceed to Item 4.c. If **yes**, continue.

1. Does the facility use or intend to use reductions in flow or changes in operations to meet the requirements of 40 CFR § 125.94(c)?

  Yes    No

If **no**, proceed to Item 4.c. If **yes**, attach descriptions of the following information:

* Individual production processes and product lines
* The operating status, including age of each line and seasonal operation
* Any extended or unusual outages that significantly affect current data for flow, impingement, entrainment, or other factors
* Any major upgrades completed within the last 15 years and plans or schedules for decommissioning or replacement of process units or production processes and product lines.

**Attachment:** Click to enter text.

1. Is this an application for a nuclear power production facility?

  Yes    No

If **no**, proceed to Item 4.d. If **yes**, attach a description of completed, approved, or scheduled upgrades and the Nuclear Regulatory Commission relicensing status for each unit at the facility.

**Attachment:** Click to enter text.

1. Is this an application for a manufacturing facility?

  Yes    No

If **no**, proceed to Worksheet 11.1. If **yes**, attach descriptions of current and future production schedules and any plans or schedules for any new units planned within the next five years (a minimum of 60 mos)

**Attachment:** Click to enter text.

**INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 11.1: IMPINGEMENT MORTALITY**

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

CWIS ID: Click to enter text.

# Impingement Compliance Technology Selection (Instructions, Page 107)

Check the box next to the method of compliance for the Impingement Mortality Standard selected by the facility.

  Closed-cycle recirculating system(CCRS) [40 CFR § 125.94(c)(1)]

  0.5 ft/s Through-Screen Design Velocity [40 CFR § 125.94(c)(2)] – Proceed to Worksheet 11.2

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

  Existing offshore velocity cap [40 CFR § 125.94(c)(4)] – Proceed to Worksheet 11.2

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

  System of technologies [40 CFR § 125.94(c)(6)]

  Impingement mortality performance standard [40 CFR § 125.94(c)(7)]

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

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

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

# Impingement Compliance Technology Information (Instructions, Page 107)

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

1. CCRS [40 CFR § 125.94(c)(1)]

  Check this box to confirm the CWS meets the definition of CCRS located at 40 CFR § 125.91(c) and provide a response to the following questions.

1. Does the facility use or propose to use a CWIS to replenish water losses to the CWS?

  Yes    No

If **no**, proceed to item a.2. If **yes**, provide the following information as an attachment and continue.

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

**Attachment:** Click to enter text.

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

1. Does the facility use or propose to use cooling towers?

  Yes    No

If **no**, proceed to Worksheet 11.2. If **yes**, provide the following information and proceed to Worksheet 11.2.

* Average number of cycles of concentration (COCs) prior to blowdown:

Average COCs Prior to Blowdown

| **Cooling Tower ID** |  |  |  |  |
| --- | --- | --- | --- | --- |
| COCs |  |  |  |  |

* Attach COC monitoring data for each cooling tower from the previous year (a minimum of 12 months): Click to enter text.
* Maximum number of COCs each cooling tower can accomplish based on design of the system.

Calculated COCs Prior to Blowdown

| **Cooling Tower ID** |  |  |  |  |
| --- | --- | --- | --- | --- |
| COCs |  |  |  |  |

* Describe conditions that may limit the number of COCs prior to blowdown, if any, including but not limited to permit conditions: Click to enter text.

1. 0.5 ft/s Through Screen Actual Velocity [40 CFR § 125.94(c)(3)]

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

**Attachment:** Click to enter text.

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

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

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

**Attachment:** Click to enter text.

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

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

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

**Attachment:** Click to enter text.

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

Provide the following information and proceed to Worksheet 11.2.

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

**Attachment:** Click to enter text.

1. If the rate of impingement caused by the CWIS is extremely low (at an organism or age-one equivalent count), attach supplemental information to Worksheet 11.0, item 1.b.6. to support this determination.

**Attachment:** Click to enter text.

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

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

**Attachment:** Click to enter text.

**INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 11.2: SOURCE WATER BIOLOGICAL DATA**

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

Name of source waterbody: Click to enter text.

# Species Management (Instructions, Page 109)

1. The facility has obtained an incidental take permit for its cooling water intake structure(s) from the USFWS or the NMFS.

  Yes    No

If yes, attach any information submitted in order to obtain that permit, which may be used to supplement the permit application information requirements of paragraph 40 CFR § 125.95(f).

**Attachment:** Click to enter text.

1. Is the facility requesting a waiver from application requirements at 40 CFR § 122.21(r)(4) in accordance with 40 CFR § 125.95 for any CWIS(s) that withdraw from a man-made reservoir that is stocked and managed by a state or federal natural resources agency or the equivalent?

  Yes    No

If **yes**, attach a copy of the most recent managed fisheries report to TPWD, or equivalent.

**Attachment:** Click to enter text.

1. There are no federally listed threatened or endangered species or critical habitat designations within the source water body.

  True    False

# Source Water Biological Data (Instructions, Page 109)

New Facilities (Phase I, Track I and II)

* Provide responses to all items in this section and stop.

Existing Facilities (Phase II)

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

**Attachment:** Click to enter text.

1. A list of the data requested at 40 CFR § 122.21(r)(4)(ii) through (vi) that are not available, and efforts made to identify sources of the data.
2. Provide a list of species (or relevant taxa) in the vicinity of the CWIS and identify the following information regarding each species listed.

* all life stages and their relative abundance,
* identification of all species and life stages that would be most susceptible to impingement and entrainment,
* forage base,
* significance to commercial fisheries,
* significance to recreational fisheries,
* primary period of reproduction,
* larval recruitment, and
* period of peak abundance for relevant taxa.

1. Data representative of the seasonal and daily activities (e.g., feeding and water column migration) of biological organisms in the vicinity of the CWIS(s).
2. Identify all threatened, endangered, and other protected species that might be susceptible to impingement and entrainment at the CWIS(s).
3. Documentation of any public participation or consultation with federal or state agencies undertaken.

The following is required for existing facilities only. Include the following information with the above listed attachment.

1. Identify any protective measures and stabilization activities that have been implemented and provide a description of how these measures and activities affected the baseline water condition in the vicinity of the intake.
2. A list of fragile species, as defined at 40 CFR § 125.92(m), at the facility. The applicant need only identify those species not already identified as fragile at 40 CFR § 125.92(m).

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

**INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 11.3: ENTRAINMENT**

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

CWIS ID: Click to enter text.

# Applicability (Instructions, Page 111)

Is the AIF of the CWIS identified above greater than, or equal to, 125 MGD?

  Yes    No

* If **no** or the facility has selected **CCRS** [40 CFR § 125.94(c)(1)] for the impingement mortality compliance method, complete Item 2 and stop here.
* If **yes** and the facility is **seeking a waiver** from application requirements in accordance with 40 CFR § 125.95 for any CWIS(s) that withdraw from a man-made reservoir that is stocked and managed by a state or federal natural resources agency or the equivalent, complete item 2 and stop.
* If **yes** and the facility is **not seeking a waiver** from application requirements in accordance with 40 CFR § 125.95, complete item 2 and provide any required and completed studies listed in item 3. For any required studies in item 3 that are not complete, provide a detailed explanation for the delay and an anticipated schedule for completion and submittal.

# Existing Entrainment Performance Studies (Instructions, Page 111)

Attach any previously conducted studies or studies obtained from other facilities addressing technology efficacy, through-facility entrainment survival, and other entrainment studies.

**Attachment:** Click to enter text.

# Facility Entrainment Performance Studies (Instructions, Page 111)

1. Attach an entrainment characterization study, as described at 40 CFR § 122.21(r)(9): Click to enter text.
2. Attach a comprehensive feasibility study, as described as 40 CFR § 122.21(r)(10): Click to enter text.
3. Attach a benefits valuation study, as described as 40 CFR § 122.21(r)(11): Click to enter text.
4. Attach a non-water quality environmental and other impacts study, as described as 40 CFR § 122.21(r)(12): Click to enter text.
5. Attach a peer review analysis, as described as 40 CFR § 122.21(r)(13): Click to enter text.

**INDUSTRIAL WASTEWATER PERMIT APPLICATION WORKSHEET 12.0: OIL AND GAS EXPLORATION, DEVELOPMENT, AND PRODUCTION WASTEWATER DISCHARGES**

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

# Operational Information (Instructions, Page 112)

1. Is the wastewater from an oil and gas exploration, development, or production facility located west of the 98th meridian?

  Yes    No

If yes, continue to the next question. If no, skip to Item 2 relating to Production/Process Data.

1. Provide justification for how the wastewater is/will be used for agriculture or wildlife propagation.

|  |
| --- |
| Click to enter text. |

# Production/Process Data (Instructions, Page 112)

1. Provide the applicable 40 CFR Part 435 Subpart(s).

|  |
| --- |
| Click to enter text. |

1. Describe if the permit being sought is for discharges from exploration, development, production, or for a combination of more than one of those activities.

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| --- |
| Click to enter text. |

1. **Provide information on all waste-streams generated and specify which waste-streams you are requesting to be authorized for discharge.**

Wastestreams Generated

| **Wastestream** | **Requesting authorization to discharge?**  **(Yes/No)** | **Volume (MGD)** | **% of Total Flow** |
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1. Describe how the facility will manage wastestreams for which discharge authorization is not being sought.

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| Click to enter text. |

**Attachment:** Click to enter text.

1. Provide information on miscellaneous discharges.

|  |
| --- |
| Click to enter text. |

**Attachment:** Click to enter text.

1. **List of chemicals that are in use, or will be used, downhole. Provide the category, concentration used/to be used, and purpose of using the chemical. Attach a safety data sheet for each chemical listed.**

Chemicals List

| **Category** | **Chemical Name** | **Concentration (include units)** | **Purpose** |
| --- | --- | --- | --- |
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**Attachment:** Click to enter text.

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

Water Treatment Chemicals List

| **Category** | **Chemical Name** | **Concentration (include units)** | **Purpose** |
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**Attachment:** Click to enter text.

# Pollutant Analysis (Instructions, Page 113)

Tables 1, 2, 6, and 7 located in Worksheet 2.0 are required. In addition, Table 19 below is required and must be completed for each outfall and submitted with this application. The remaining tables in Worksheet 2.0, are required as applicable.

1. Provide the date range of all sampling events conducted to obtain the analytical data submitted with this application (e.g., 05/01/2018-05/30/2018): Click to enter text.
2. Check the box to confirm all samples were collected no more than 12 months prior to the date of application submittal.
3. Read the general testing requirements in the instructions for important information about sampling, test methods, and MALs. If a contact laboratory was used, attach a list which includes the name, contact information, and pollutants analyzed for each laboratory/firm. **Attachment:** Click to enter text.
4. Attach correspondence from TCEQ approving submittal of less than the required number of samples, if applicable. **Attachment:** Click to enter text.

Table 19 for Outfall No.: Click to enter text. ****Samples are (check one):****    ****Composite****    ****Grab****

| **Pollutant** | **Sample 1 (mg/L)\*** | **Sample 2 (mg/L)\*** | **Sample 3 (mg/L)\*** | **Sample 4 (mg/L)\*** |
| --- | --- | --- | --- | --- |
| Calcium |  |  |  |  |
| Potassium |  |  |  |  |
| Sodium |  |  |  |  |

\*Indicate units if different from mg/L.

1. <https://www.tceq.texas.gov/permitting/wastewater/industrial/TPDES_industrial_wastewater_steps.html> [↑](#footnote-ref-2)