**DOMESTIC WASTEWATER PERMIT APPLICATION:**

SEWAGE SLUDGE TECHNICAL REPORT 1.0

GENERAL INFORMATION

If you have questions about completing this form please contact the Applications Review and Processing Team at 512-239-4671.

# SECTION 1. TREATMENT PROCESSING INFORMATION

1. Attach the engineering report and/or plans and specifications for the proposed facility which must include the following:

* Description of the type of process facility
* Process flow diagram
* Design calculations, features, and functional arrangements
* Site controls
* Groundwater protection
* Odor, dust, and bio-aerosol management
* Ultimate product

Attachment Number: Click here to enter text.

1. Is the facility located or proposed to be located above the 100-year frequency flood plain? Yes     No

If No, provide a separate site map indicating the location of the sludge units within the 100-year frequency flood plain and a detailed description of the type and size of protective measures.

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

# SECTION 2. SOURCES OF SLUDGE

1. Provide the sources of generation, any water quality or public water supply permit number issued by TCEQ, and the quantity for each source.

| **Facility Name** | **Permit Number** | **Annual Quantity** |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

1. For each source of sludge, complete Table 1 located at the end of this form.

# SECTION 3. PATHOGEN AND VECTOR ATTRACTION REDUCTION

1. For each source of sludge, complete Tables 2 and 3 located at the end of this form.
2. Indicate by a checkmark that all of the following are being followed for Class B land application.

  Food crop harvesting restrictions

  Animal grazing restrictions

  Public access restrictions

# SECTION 4. WELL INFORMATION

In the table below, provide information about each well located on-site and within 500 feet of the processing, application, and/or disposal area. Water well information is available from the Texas Water Development Board, 512-936-0837. Oil and gas well information is available from the Texas Railroad Commission, 512-463-6851.

| **Well Type**  **(Water Well, Oil Well, Injection Well)** | **Producing**  **or**  **Non-Producing** | **Open, Cased, or Capped\*** | **Protective Measures\*\*** |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

\* Casing, capping, and plugging rules are located in 16 TAC Chapter 76.

\*\* The following protective measures are required prior to initial sludge/septage application:

* If the well is producing and cased, no action is needed.
* If the well is producing and not cased, the well must be cased or describe other protective measures.
* If the well is non-producing and cased, the well must be plugged or capped.
* If the well is non-producing and not cased, the well must be plugged.

# SECTION 5. ADDITIONAL TECHNICAL REPORTS

Identify which additional technical reports are submitted with this application.

   Technical Report 2.0, Sewage Sludge Composting

   Technical Report 3.0, Marketing and Distribution

   Technical Report 4.0, Sewage Sludge Surface Disposal

# SITE OPERATOR SIGNATURE PAGE

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

Permit Number: Click here to enter text.

Applicant: Click here to enter text.

I understand that I am responsible for operating the site described in this permit application in accordance with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the Texas Commission on Environmental Quality.

I certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of this permit.

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

Signatory Name: Click here to enter text.

Title: Click here to enter text. Below is a text box that contains a space for a wet ink signature, date and notary public certification.

Signature (use blue ink): Date:

SUBSCRIBED AND SWORN to before me by the said on

this day of , 20

My commission expires on the day of , 20

(Seal) Notary Public

County, Texas

# LANDOWNER SIGNATURE PAGE

**Required if the landowner is not the applicant or co-applicant. Each landowner must submit an original, separate signature page.**

Permit Number: Click here to enter text.

Applicant: Click here to enter text.

I certify, as the owner of the land described in this permit application, that I have all rights and covenants to authorize the applicant to use this site for the land application of (*identify the type(s) of sludge*). I understand that 30 TAC Chapter 312 requires me to make a reasonable effort to see that the applicant complies with the requirements in 30 TAC Chapter 312, the conditions set forth in this application, and any additional conditions as required by the TCEQ. I also certify, under penalty of law, that all information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine, imprisonment for violations, and revocation of the permit.

Signatory Name: Click here to enter text.

Title: Click here to enter text.

Below is a text box that contains a space for a wet ink signature, date and notary public certification.

Signature (use blue ink): Date:

SUBSCRIBED AND SWORN to before me by the said on

this day of , 20

My commission expires on the day of , 20

(Seal) Notary Public

County, Texas

DOMESTIC WASTEWATER PERMIT APPLICATION:

SEWAGE SLUDGE TECHNICAL REPORT 2.0

SEWAGE SLUDGE COMPOSTING

# SECTION 1. RENEWAL OF EXISTING AUTHORIZATION

Provide the following information if you are requesting continued authorization to compost sewage sludge. Complete this section only if composting is currently authorized in the existing permit.

Date operation commenced: Click here to enter text.

Location of operation: Click here to enter text.

Type of bulking agent: Click here to enter text.

Approximate amount of sludge composted: Click here to enter text.

Provide a brief discussion of the composting process and any significant changes since the permit was last issued.

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

# SECTION 2. NEW AUTHORIZATION TO COMPOST SEWAGE SLUDGE

1. Submit an ORIGINAL General Highway (County) Map. See instructions for information that must be displayed on the map.

Attachment Number: Click here to enter text.

1. Has sewage sludge/septage previously been composted at this facility?

Yes     No

If Yes, provide a use history of the composting operations.

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

1. Provide a detailed description of the composting operation. The description must include the following information:

* Amount of sludge originating off-site to be composted;
* Total amount of sludge to be composted and total amount of feedstocks;
* Fecal coliform or Salmonella bacteria analysis (in MPN or CFU);
* Type, origin, and amount of bulking material to be used;
* Set back distances from facility boundaries for receiving, processing, or storing feedstocks or final product;
* Plan view of site;
* Type of composting proposed;
* Construction, maintenance, and operation to manage run-on and run-off during a 25-year, 24-hour rainfall event, including all calculations and sources used;
* Leachate collection system and leachate processing and disposal method;
* Construction, maintenance, and operations for groundwater protection;
* Design plan to line all surfaces used for delivery, mixing, composting, curing, screening, and storage to control seepage; and
* Design to minimize windblown material, odor, and vector control.

Attachment Number: Click here to enter text.

1. Does the end product meet the requirements in 30 TAC 332.72(d)(2)(A)-(D)?

Yes     No

1. Submit a site operating plan which provides guidance from the design engineer to site management and operating personnel in sufficient detail to enable them to conduct day to day operations in a manner consistent with the engineer’s design. The plan must include the following information:

* Process description (feedstock identification, tipping process, process, post-processing, product distribution, process diagram);
* Minimum number of personnel and their functions provided by the site operator;
* Minimum equipment;
* Security, site access control, traffic control, and safety;
* Control of the delivery material in designated areas;
* Screening for unprocessable, prohibited, and unauthorized material;
* Fire prevention and suppression plan;
* Control of windblown material;
* Equipment failures;
* Anticipated final grade of materials; and
* Description of handling and/or disposal of materials that doesn’t meet 30 TAC Chapter 312.

Attachment Number: Click here to enter text.

DOMESTIC WASTEWATER PERMIT APPLICATION:

SEWAGE SLUDGE TECHNICAL REPORT 3.0

SEWAGE SLUDGE MARKETING AND DISTRIBUTION

1. What is the TCEQ Permit number for the Wastewater Treatment Plant that is generating the Class A or Class AB sewage sludge? Click here to enter text.
2. What is the name and location of the distribution storage center?Click here to enter text.
3. Provide a description of the marketing and distribution plan.

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

1. Provide the following information for all entities receiving sludge directly from the permittee. If more than 2, submit an attachment which includes the follow information.

1. Contact Name: Click here to enter text.

Company Name: Click here to enter text.

Mailing Address: Click here to enter text.

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

Phone Number: Click here to enter text. Fax Number: Click here to enter text.

Longitude: Click here to enter text.

Latitude: Click here to enter text.

Permits: Click here to enter text.

2. Contact Name: Click here to enter text.

Company Name: Click here to enter text.

Mailing Address: Click here to enter text.

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

Phone Number: Click here to enter text. Fax Number: Click here to enter text.

Longitude: Click here to enter text.

Latitude: Click here to enter text.

Permits: Click here to enter text.

1. Provide a copy of the label or information sheet that is provided to each entity receiving the sewage sludge.

Attachment Number: Click here to enter text.

1. Indicate by a checkmark that the sewage sludge meets the following:

   Metal concentrations in 30 TAC §312.43(b)(3)

   Vector attraction reduction requirements

   Class A, Class AB or Class B pathogen requirements

1. Indicate the type of recordkeeping: Click here to enter text.

**PLEASE NOTE:** If Class AB sewage sludge, attach a topographic map that shows the required buffer zones stated in 30 TAC §312.44.

DOMESTIC WASTEWATER PERMIT APPLICATION:

SEWAGE SLUDGE TECHNICAL REPORT 4.0

SEWAGE SLUDGE SURFACE DISPOSAL

# SECTION 1. LOCATION INFORMATION

1. Attach the following maps. See instructions for information that must be displayed on each map.

* Original General Highway (County) map;
* USDA Natural Resources Conservation Service Soil Map;
* Federal Emergency Management Agency Map; and
* Site Map.

Attachment Numbers: Click here to enter text.

1. Indicate by checkmarks if the disposal unit contains any of the following:

   Overlaps a designated 100-year frequency floodplain

   Soils with flooding classification

   Wetlands

   Located less than 60 meters from a fault

   Overlaps an unstable area

   None of these

If the sludge disposal unit contains any of the above features, provide a detailed description of the type and size of protective measures.

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

# SECTION 2. DISPOSAL INFORMATION

1. What is the volume and frequency of sludge disposal? Click here to enter text.
2. What is the total dry tons placed on the disposal unit per 365-day period? Click here to enter text.
3. What is the total dry tons placed on the disposal unit over the life of the unit? Click here to enter text.
4. Attach a current TCLP test result from each sludge source.

Attachment Number: Click here to enter text.

# SECTION 3. FACILITY INFORMATION

* 1. Does the disposal unit have a liner with a maximum hydraulic conductivity of 1X10-7 cm/sec? Yes     No

If yes, describe the liner.

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

1. Does the disposal unit have a leachate collection system?

Yes     No

If yes, describe the leachate collection system and the method used for leachate treatment and disposal.

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

1. If you answered No to A. and B., is the boundary of the disposal unit less than 150 meters from the nearest property boundary?

Yes     No

If you answered No to C., what is the actual distance to the nearest property boundary in meters? Click here to enter text.

Click here to enter text.

Yes     No

1. Do the design calculations for the disposal unit show that stormwater will not run-off of the disposal unit during a 25-year, 24-hour rainfall event?

Yes     No

1. If sludge dewatering is used, describe the method of sludge dewatering and the average percent solids disposed of in the disposal unit.

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

1. Are crops grown or animals allowed to graze at the disposal site?

Yes     No

If yes, provide a detailed description of management practices that protect human health from accumulation of metals in the sewage sludge.

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

# SECTION 4. SITE DEVELOPMENT PLAN

1. Provide a detailed description of the methods used to deposit sludge in the disposal unit.

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

1. Indicate by a checkmark that the following information is provided with this application.

   Plan view and cross-sectional view of the disposal unit

   Source and physical properties of the soil and/or other media for sludge bulking

   Locations of stockpiles of media and the area for sludge loading and unloading

   Operation procedures detailing mixing, ratio of mixture, handling of mixture, placement of the mixture, and daily cover

   Copy of the closure plan and post-closure maintenance requirements developed in accordance with 30 TAC §312.62(c) and (d)

   Copy of deed record for the site

   Description of the method of controlling infiltration of groundwater and surface water from entering the site

   Financial assurances of proper operation and final closure of the disposal unit and storage in accordance with 30 TAC §312.62(g)

   Description of methane gas monitoring if cover is placed on the disposal unit

   Description of method to restrict public access to the site.

# SECTION 5. GROUNDWATER MONITORING

1. Is groundwater monitoring currently conducted at this disposal unit, or is groundwater monitoring data otherwise available?

Yes     No

If yes, attach a copy of available groundwater monitoring data.

Attachment Number: Click here to enter text.

1. Has a groundwater monitoring program been prepared for this disposal unit? Yes     No

If yes, attach a copy of the groundwater monitoring program.

Attachment Number: Click here to enter text.

1. Provide a certification from a qualified groundwater scientist that the aquifer below the disposal unit will not be contaminated.

Attachment Number: Click here to enter text.

1. Provide a profile of soil types encountered down to the groundwater table and the depth to the shallowest groundwater.

Attachment Number: Click here to enter text.

**Appendix A**

Pollutant Concentrations in

Sewage Sludge

Complete this table **for each source** of sludge.

Facility Name: Click here to enter text.

TCEQ Authorization Number: Click here to enter text.

**POLLUTANT/METAL ANALYSIS**

| **Pollutant** | **Maximum Concentration, mg/kg**  **dry weight** | **Test Results, mg/kg**  **dry weight** | **Sample Date** | **Detection Level for Analysis** | **Sample Method** |
| --- | --- | --- | --- | --- | --- |
| Arsenic (As) | 75 |  |  |  |  |
| Cadmium (Cd) | 85 |  |  |  |  |
| Chromium (Cr) | 3000 |  |  |  |  |
| Copper (Cu) | 4300 |  |  |  |  |
| Lead (Pb) | 840 |  |  |  |  |
| Mercury (Hg) | 57 |  |  |  |  |
| Molybdenum (Mo) | 75 |  |  |  |  |
| Nickel (Ni) | 420 |  |  |  |  |
| Selenium (Se) | 100 |  |  |  |  |
| Zinc (Zn) | 7500 |  |  |  |  |
| PCB (ppm) | 50.0 ppm |  |  |  |  |
| Fecal Coliform (MPN) |  |  |  |  |  |

Appendix B

PATHOGEN REDUCTION REQUIREMENTS

**For each source**, select the pathogen reduction alternative that will be used prior to land application of sewage sludge. Requirements for each alternative can be found in 30 TAC §312.82.

| **TCEQ Permit Number** | **Pathogen Reduction Alternative Used** | **Fecal Coliform Geometric Mean (cfu/gram total solids)\*** | **Fecal Test Date\*** | **Is PSRP Certification Attached?\*\***  **(Yes/No/NA)** |
| --- | --- | --- | --- | --- |
| Example  WQ11280-001 | Option 1: Density of Fecal Coliform | 300,000 cfu/g | 12/2/98 | NA |
|  | Choose an item. |  |  |  |
|  | Choose an item. |  |  |  |
|  | Choose an item. |  |  |  |
|  | Choose an item. |  |  |  |
|  | Choose an item. |  |  |  |
|  | Choose an item. |  |  |  |
|  | Choose an item. |  |  |  |
|  | Choose an item. |  |  |  |
|  | Choose an item. |  |  |  |
|  | Choose an item. |  |  |  |
|  | Choose an item. |  |  |  |

\*Applicable to Option 1 only.

\*\*Applicable to Option 2a – f.

If Other or PFRP Equivalent is selected as the Alternative Used, please explain: Click here to enter text.

Appendix C

VECTOR ATTRACTION REDUCTION REQUIREMENTS

**For each source**, provide the vector attraction reduction option that will be used prior to or after land application of sewage sludge/septage. Requirements for each alternative can be found in 30 TAC §312.83.

| **TCEQ Permit Number** | **Vector Attraction Reduction Alternative Used\*** | **Monitoring Criteria and results needed for alternative** |
| --- | --- | --- |
| Example  WQ11280-001 | Option 10: Incorporate within 6 hrs | Visual inspection of area after tilling |
| Example  WQ13450-003 | Option 4: SOUR <=1.5 mg 02/hr/g total solids at 20C (<2% solids) | Aerobically digested, 2.0% solids, SOUR=1.3 mg/g |
|  | Choose an item. |  |
|  | Choose an item. |  |
|  | Choose an item. |  |
|  | Choose an item. |  |
|  | Choose an item. |  |
|  | Choose an item. |  |
|  | Choose an item. |  |
|  | Choose an item. |  |
|  | Choose an item. |  |

\*Options 1-8 are sludge treatment alternatives. Options 9-10 are onsite alternatives. Option 12 is for domestic septage only.

INSTRUCTIONS FOR SEWAGE SLUDGE TECHNICAL REPORTS

# GENERAL INFORMATION

# Purpose of the Application

This form is used to request authorization for certain sludge disposal options within or adjacent to a publicly-owned wastewater treatment plant (WWTP).

The Administrative and Technical Reports of the Domestic Wastewater Permit Application (TCEQ-10053 and TCEQ-10054) must be submitted with this form.

# Who Should Apply?

This application should be submitted by owners of domestic wastewater treatment plants that are requesting authorization for sewage sludge and/or septage disposal in a **surface disposal site** (ie. sludge monofill) at a site located adjacent to the wastewater treatment facility, **sewage sludge composting**, or **sludge marketing and distribution**.

# When Is The Application Submitted?

For new and amendment applications, the completed application must be submitted at least 180 days before the proposed activity is to occur. For renewal applications, the completed application must be submitted at least 180 days before the expiration date of the current wastewater permit.

# Where to Send the Application Form

**One original and three copies** of the application, including attachments, must be provided to the address below:

Regular U.S. Mail:

TCEQ

ARP Team, MC 148

PO Box 13087

Austin TX 78711-3087

Express Mail or Hand Delivery:

TCEQ

ARP Team, MC 148

Building F Room 2101

12100 Park 35 Circle

Austin TX 78753

# TCEQ Contact List

Permit Information and Application Forms: 512-239-4671

Technical Information, Land Application Team: 512-239-4671

Environmental Law Division: 512-239-0600

Copies of records on file with the TCEQ may be obtained for a minimal fee from the Records Management Office at 512-239-2900.

# Abbreviations and Acronyms

CFR - Code of Federal Regulations

CFU - Colony Forming Units

EPA - United States Environmental Protection Agency

MPN - Most Probable Number

mg/l - Milligrams per Liter

PFRP - Process to Further Reduce Pathogens

PSRP - Process to Significantly Reduce Pathogens

TAC - Texas Administrative Code

TCEQ - Texas Commission on Environmental Quality

USDA - United States Department of Agriculture

USGS - United States Geological Survey

# SEWAGE SLUDGE TECHNICAL REPORT 1.0 - GENERAL INFORMATION

# Section 1. Treatment Processing Information

1. Attach an engineer’s report that includes the following information:
   * **Description of the type of sludge processing** (e.g., aerobic digestion, heat drying, and lime stabilization). Provide a detailed description of processes and treatment units utilized to meet pathogen and vector reduction requirements as needed for the sludge use or disposal. Include any admixtures and blending agents.
   * **Process flow diagram** of the entire wastewater treatment process. Include all components of the treatment system and flow streams through the process, storage, and removal from the treatment plant site. Provide more detailed flow stream information regarding the sludge treatment units. The flow streams must indicate the quantity of sludge on a wet weight, dry weight, and volumetric basis through each sludge process unit.
   * **Design calculations** for the specified treatment process. Provide the dimensions of the treatment units (Length x Width x Height, capacity in gallons and/or cubic feet). Include design calculations for the specified treatment process (temperature ranges, residence time, chemical additions, dewatering capability, etc). Provide information within the design calculations that discuss design features (alarms, standby and duplicate units, holding tanks) and functional arrangements (flexibility of piping, valves, backup generator) within the sludge process units that will prevent the partial treatment of sewage sludge or the overflow of wastewater (e.g., supernate) due to: 1) power failure; 2) equipment malfunction; 3) plant maintenance; or 4) other circumstances.

* **Site Controls.** Description of storage method. Include the method to control surface water run-on and run-off, collection of leachate, and/or process wastewater generated from the facility, and any bulk material storage areas. For uncovered bulk material storage or processed material, provide design calculations for protecting the areas from the 25-year, 24-hour rainfall event. Include sources of information and assumptions.
* **Groundwater protection**. Description of method to control groundwater contamination.
* **Odor, dust, and bio-aerosol management plan.** Describe how the production and migration of each of these emissions will be monitored and minimized, including design and operational practices. The buffer zone requirements for treatment units are found in 30 TAC Section 312.13(e) and are applicable for all wastewater treatment plant units.
* Description of the **ultimate use for the finished product**. The description of the proposed use or disposal and method of disposal of any product that cannot be used in the expected manner due to poor quality or change in market conditions.

1. Indicate whether the facility is above the 100-year frequency flood plain. All units must be protected from inundation from a 100-year frequency flood. If any units are not located above the 100-year frequency flood, provide a separate site map that shows the location of the units within the 100-year frequency flood plain and a detailed description of the type and size of protective measures.

# Section 2. Sources of Sludge

1. For each source of sewage sludge or domestic septage, provide the name of the facility; the TCEQ permit number, registration number, or transporter number; and the average quantity received from the source.
2. For each source of sewage sludge or domestic septage, use the sludge laboratory analyses to complete Appendix A Pollutant Concentrations in Sewage Sludge.

# Section 3. Pathogen and Vector Attraction Reduction

1. For each source of sewage sludge or domestic septage, complete Appendix B Pathogen Reduction Requirements and Appendix C Vector Attraction Reduction Requirements. The requirements for each option are found in 30 TAC §312.82-83.
2. Indicate that the following restrictions are being followed for land application of Class B sewage sludge and domestic septage:

* Food crop harvesting restrictions:
  + Food crops with harvested parts totally above the land surface **(e.g., strawberries, squash, pecans picked up from the ground)** must not be harvested from the land for at least 14 months after the last application of sludge if any of the harvested parts contact the sludge or soil.
  + Food crops with harvested parts below the surface of the land **(e.g., onions, potatoes)** must not be harvested from the land for at least 20 months after application of sludge when the sludge remains on the land surface for 4 months or longer prior to incorporation into the soil.
  + Food crops with harvested parts below the surface of the land **(e.g., onions, potatoes)** must not be harvested for at least 38 months after application of sludge when the sludge remains on the land surface for less than four months prior to the incorporation into the soil.
  + Food crops (when grown and harvested in a manner that prevents any part of the crop from contacting the soil or sludge such as **hand-picked oranges and apples**), feed crops **(e.g., hay)**, and fiber crops **(e.g., cotton)** must not be harvested for at least 30 days after application of sludge.
* Animal grazing restrictions:
  + Animals must not be allowed to graze on the land for at least 30 days after application of sludge.
* Public access restrictions:
  + Public access to land with a high potential for public exposure **(e.g., parks, soccer fields)** must be restricted for at least one year after application of sludge.
  + Public access to land with a low potential for public exposure **(e.g. land at the WWTP)** must be restricted for at least 30 days after application of the sludge.

# Section 4. Well Information

Complete the table by providing the requested information for each well located on and within 500 feet of the application area, including off-site wells. Each well shall also be provided on the site map.

# Section 5. Additional Technical reports

Indicate with a checkmark each additional technical report that is submitted with Technical Report 1.0.

# Signature Pages

A separate signature page must be provided for the site operator, each co-applicant, and the landowner of the application site (if the landowner is different from the site operator and co-applicant). The signature page must bear an original signature and the seal of a notary public. The date signed by the applicant must be the same as the date notarized. The signature page will not be acceptable if the dates are different.

In accordance with 30 Texas Administrative Code §305.44 relating to Signatories to Applications, all applications shall be signed as follows:

For a corporation, the application shall be signed by a responsible corporate officer. For purposes of this paragraph, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. Corporate procedures governing authority to sign permit or post-closure order applications may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.

For a partnership or sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively.

For a municipality, state, federal, or other public agency, the application shall be signed by either a principal executive officer or a ranking elected official. For purposes of this paragraph, a principal executive officer of a federal agency includes the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., regional administrator of the EPA).

# SEWAGE SLUDGE TECHNICAL REPORT 2.0 - SEWAGE SLUDGE COMPOSTING

This technical report is required it you are requesting authorization to compost sewage sludge.

# Section 1. Renewal of an existing authorization to compost sewage sludge

This section is only applicable if composting sewage sludge is authorized in the existing and the applicant is seeking to continue that authorization. This does not include facilities that obtained composting authorization through a Municipal Solid Waste Permit.

# Section 2. New and amended authorization to compost sewage sludge

1. Submit an original **General Highway (County) Map** showing the applicant’s property boundaries in RED ink and the location of the composting area. Copies may be submitted on 8.5 x 11-inch sheets. These maps can be ordered from the Texas Department of Transportation Map Sales from the following web site: <http://www.txdot.gov/travel/county_grid_search.htm>
2. Indicate whether composting has previously been conducted at this site. If yes, the discussion of the use history of the composting operations must include the following information:

* the type of sludge composted
* the amount of sludge composted so far (in tons)
* the quality of the final product with respect to 30 TAC §332.72
* how the final product was marketed and distributed
* compliance history (e.g., enforcement, upsets)
* copy of any closure plan developed for this facility including anticipated closure date

1. Provide a detailed description of the sewage sludge composting site and operation. The description must include the following information.

* Amount of sludge originating off-site which is to be composted
* Total amount of sewage sludge to be composted and total amount of feedstocks identified in 30 TAC §332.3(b)
* The Fecal Coliform or Salmonella sp. bacteria analysis of the sludge in MPN or CFU
* The type, origin and the amount of bulking material to be used
* Set back distance from the facility boundary to the areas for receiving, processing, or storing feedstocks or final product
* A plan view of the site showing all the equipment, storage facilities, and sludge management facilities
* Types of composting proposed (e.g., windrow process, aerated pile process, etc.)
* Description how the facility shall be constructed, maintained, and operated to manage run-on and run-off during a 25-year, 24-hour rainfall event and include calculations and provide source of all assumptions used
* Description the leachate collection system and the method used for leachate processing and disposal in accordance with applicable requirements and provide the TCEQ permit(s) numbers for leachate treatment and disposal
* Description of how the facility will be constructed, maintained, and operated to protect groundwater
* Description of a design plan to line all the surfaces used for sewage sludge delivery, mixing, composting, curing, screening and storing to control seepage
* Design of facility to minimize windblown material, odor and vector control

1. Indicate whether the end product meets the requirements set forth in 30 TAC §332.72(d)(2)(A)-(D).
2. Submit a site operating plan. This document provides guidance from the design engineer to site management and operating personnel in sufficient detail to enable them to conduct day to day operations in a manner consistent with the engineer's design. At a minimum, the site operating plan shall include specific guidance or instructions on all of the following:

* Process description. The process description must include the following.
  + Feedstock identification. The applicant must prepare a list of the materials intended for processing along with the anticipated volume to be processed. This section must also contain an estimate of the daily quantity of material to be processed at the facility along with a description of the proposed process of screening for unauthorized and prohibited materials.
  + Tipping process. Indicate what happens to the feedstock material from the point it enters the gate. Indicate how the material is handled in the tipping area, how long it remains in the tipping area, what equipment is used, how the material is evacuated from the tipping area, at what interval the tipping area is cleaned, the process used to clean the tipping area.
  + Process. Indicate what happens to the material as it leaves the tipping area. Indicate how the material is incorporated into the process and what process or processes are used until it goes to the post-processing area. The narrative shall include: water addition; processing rates; equipment; energy and mass balance calculations; process monitoring method; testing and monitoring methods and frequency.
  + Post-processing. Provide a complete narrative on the post-processing process to include: post-processing times; identification and segregation of product; storage of product; quality assurance and quality control; testing methods and frequency.
  + Product distribution. Provide a complete narrative on product distribution to include but not limited to: end-product quantities; anticipated final grades; packaging; labeling; loading; tracking bulk material; anticipated end use; method of distribution or use.
  + Process diagram. Present a process diagram that displays graphically the narrative discussion identified in the previous bullets.
  + Minimum number of personnel and their functions to be provided by the site operator in order to have adequate capability to conduct the operation in conformance with the design and operational standards;
  + Minimum number and operational capacity of each type of equipment to be provided by the site operator in order to have adequate capability to conduct the operation in conformance with the design and operational standards;
  + Security, site access control, traffic control and safety;
  + Control of dumping within designated areas
  + Mechanical and process screening for unprocessable, prohibited, and unauthorized material;
  + A fire prevention and suppression plan that complies with provisions of the local fire code, which must also be sent to the local fire protection entity responsible for responding to a fire at the facility;
  + Control of windblown material;
  + Equipment failures including alternative plans in the event of an equipment failure; and
  + A description of the anticipated final grade of the materials.
  + Submit a description of the method(s) by which materials that do not meet the end product requirements of 30 TAC Chapters 312 and 332 will be handled and/or disposed.

# SEWAGE SLUDGE TECHNICAL REPORT 3.0 - SEWAGE SLUDGE MARKETING AND DISTRIBUTION

This technical report is required it you are requesting authorization to market and distribute Class A or Class AB sewage sludge.

1. Provide the TCEQ Permit Number of the facility generating the Class A or Class AB sewage sludge.
2. Provide the name and location of the sites used for the storage and distribution of the Class A or Class AB sewage sludge.
3. Provide a description of the marketing and distribution plan. The plan must include, but is not limited to, the following activities:

* If the sewage sludge will be sold or given away directly to the public, include a general description of the types of end uses proposed by persons who will be receiving the sewage sludge;
* The methods of distribution, marketing, handling, and transportation of the sewage sludge;
* A reasonable estimate of the expected quantity of sewage sludge to be generated or handled; and
* Any proposed storage and the methods used to prevent surface water runoff of the sewage sludge or contamination of groundwater.

1. For all entities that receive Class A or Class AB sewage sludge directly from the permittee, provide the name, company name, telephone and fax numbers, address, and all federal, state, and local permits that the receiving facility has obtained. If more than two entities receive Class A or Class AB sewage sludge directly, provide a separate attachment that includes the requested information for all entities.
2. Provide a copy of the label or information sheet provided to all entities that receive the sewage sludge.
3. Indicate by a check mark that the Class A or Class AB sewage sludge being sold, given away in bulk, bag, or container for land application meets the following (as shown on Appendix A,B and C:

* Metal concentrations in 30 TAC Section 312.82(a);
* Vector attraction reduction requirements; and
* Class A or Class AB pathogen requirements.

1. Describe the type of recordkeeping.

# SEWAGE SLUDGE TECHNICAL REPORT 4.0 - SEWAGE SLUDGE SURFACE DISPOSAL

This technical report is required it you are requesting authorization to dispose of sewage sludge by placing it in a sewage sludge surface disposal unit (ie. sludge monofill). Do not use this technical report for sludge that is disposed of in a municipal landfill.

NOTE: Sewage sludge that has failed a TCLP test cannot be disposed of within a sewage sludge surface disposal unit.

**Section 1. Location information**

1. Attach the following maps which display the required information noted below:

* Submit an original **General Highway (County) Map** showing all applicant’s property boundaries in RED ink, the location of the disposal unit, a scale sufficient to verify the distance of the disposal unit from the property line in accordance with 30 TAC Section 312.63, and all areas within 1000 feet of the site. Copies may be submitted on 8.5 x 11-inch sheets. These maps can be ordered from the Texas Department of Transportation Map Sales from the following web site: <http://www.txdot.gov/travel/county_grid_search.htm>
* Submit a legible copy of a **USDA Natural Resources Conservation Service (NRCS) Soil Map** with soil legend and necessary interpretative information. These maps can be created on the NRCS Web Soil Survey web site: <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. If the county is not mapped, have a soil scientist identify the soils.
* Submit a copy of the **Federal Emergency Management Agency (FEMA) Map** showing the 100-year floodplain. These maps can be obtained by requesting a Flood Insurance Study at no charge from the FEMA Flood Map Distribution Center at (800) 358-9616. The flood insurance study will contain a booklet and the FEMA maps.
* Submit a site map that indicates all of the components that pertain to the disposal unit (cross section diagram(s), storage area(s), run-off collection area(s), etc.)

1. Indicate with checkmarks if the sludge disposal unit contains one or more of the features listed in the application. For each identified feature, provide a discussion of the type and size of the protective measures.

**Section 2. Disposal information**

1. Provide the approximate volume of sludge and the frequency of each sludge disposal activity.
2. Provide the total amount of sludge placed in the disposal unit each year, in dry tons.
3. Provide the total amount of sludge that has been placed in the disposal unit over the life of the unit, in dry tons.
4. For each sludge source, provide the most recent TCLP test result.

**Section 3. Facility information**

1. If the disposal unit has a liner, indicate how the liner meets the hydraulic conductivity listed in the application.
2. Indicate it the disposal unit has leachate collection system. If so, describe the leachate collection system and the method used for leachate treatment and disposal.
3. If the disposal unit does not have a liner or leachate collection system, indicate if the disposal unit located less than 150 meters from the nearest property boundary.

If the disposal unit is located less than 150 meters from the nearest property boundary, provide the actual distance to the nearest property boundary, in meters. Also indicate if the metal concentrations listed in the application exceed the maximum metal concentrations and property boundary distances required by 30 TAC 3212.63(b)(2).

1. Indicate if the design calculations for the disposal unit show that stormwater will not leave the disposal unit during a 25-year, 24-hour rainfall event.
2. If the sewage sludge is dewatered prior to placing in the disposal unit, describe the method of sludge dewatering and the average percent solids of the sludge placed in the disposal unit.
3. Indicate if crops are grown or animals allowed to graze at the disposal site. If yes, provide a detailed description of management practices that protect human health from bioaccumulation of metals in the sewage sludge.

**Section 4. Site development plan**

1. Describe the methods used to deposit sludge in the disposal unit. This description should include site layout plan, site entrance roads from public access roads, rate of sludge deposition, average and maximum lift size, average and maximum trench or cell size, sludge unit cover, seismic impact design, protection from floods, and other information necessary to depict how the surface disposal unit will be developed.
2. Indicate by a checkmark that each the following information has been submitted with the application.

* A detailed plan view and cross-section view of the surface disposal unit.
* The source and physical properties of the soil, daily cover, and other media for sludge bulking, if applicable.
* Locations of stockpiles of the bulking media and the area for sludge unloading and mixing within the plant site and include on the site map.
* Describe operational procedures detailing the following: how the sludge is to be mixed; the ratio of the media/sludge mixture; the handling and placement of the mixture in the sludge unit; the method of spreading the daily cover; the depth of the daily cover.
* Provide a copy of any closure plan, which includes post-closure maintenance requirements, that has been developed for disposal unit in accordance with 30 TAC §312.62(c) and (d).
  + A copy of deed record for the site showing that a sludge disposal unit is located at the site.
  + Provide a description controlling the infiltration of sludge from entering ground and surface water.
  + Provide financial assurance to properly operate this surface disposal unit and to provide final closure of this surface disposal unit and storage (if applicable) (30 TAC Section 312.62(g)).
  + Provide a brief description of how methane gas is monitored, if cover is placed on unit and
  + Provide a brief description of how public access to the site is restricted.

**Section 5. Groundwater monitoring**

1. Indicate if groundwater monitoring data is available for the site. If so, attach a copy of the data.
2. Indicate if a groundwater monitoring program has been developed. If so, attach a copy.
3. Provide a certification from a qualified groundwater scientist that the aquifer below the disposal unit will not be contaminated.
4. Provide a profile of the soil types encountered down to the groundwater table and the depth to the shallowest groundwater.