

**DOMESTIC WASTEWATER PERMIT APPLICATION:
SEWAGE SLUDGE TECHNICAL REPORT 1.0**

GENERAL INFORMATION

1. Treatment processing information (Instructions, Page 6)

a. Please check that the detailed engineering report and/or plans and specifications for the proposed facility include the following and have been submitted as part of the application:

- | | |
|---|--|
| <input type="checkbox"/> Description of the type of process facility
<input type="checkbox"/> Process flow diagram
<input type="checkbox"/> Design calculations, features,
and functional arrangements | <input type="checkbox"/> Site controls
<input type="checkbox"/> Groundwater protection
<input type="checkbox"/> Odor, dust, bioaerosol management
<input type="checkbox"/> Ultimate use of finished product |
|---|--|

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

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

2. Source material information (Instructions, Page 6)

Provide a detailed description of the source(s) of the sludge (TCEQ Permit No., TCEQ Registration No. or TCEQ Transporter No.) and the average quantity received:

1. _____
2. _____
3. _____
4. _____

Provide the results of the sewage sludge from each source for the following parameters:

Parameter	mg/kg	Parameter	mg/kg
Arsenic		Molybdenum	
Cadmium		Nickel	
Chromium		Selenium	
Copper		Zinc	
Lead		Fecal Coliform (MPN)	
Mercury		Polychlorinated Biphenyls	

3. Pathogen reduction alternatives (Instructions, Pages 7-9)

Please indicate by a check mark which pathogen reduction alternative(s) is/will be utilized prior to use or disposal. For surface disposal, include the alternatives at the treatment plant and at the sludge unit.

Class A Pathogen Reduction Alternatives

- | | |
|--|--|
| <input type="checkbox"/> Thermally treated | <input type="checkbox"/> Enteric viruses/viable helminth ova density |
| <input type="checkbox"/> High pH-high temperature | <input type="checkbox"/> PFRP |
| <input type="checkbox"/> Enteric viruses/viable helminth ova limit | <input type="checkbox"/> PFRP Equivalent |

Class B Pathogen Reduction Alternatives

- | | |
|---|---|
| <input type="checkbox"/> Density of fecal coliform | <input type="checkbox"/> PSRP, Air drying |
| <input type="checkbox"/> PSRP, Aerobic digestion | <input type="checkbox"/> PSRP, Composting |
| <input type="checkbox"/> PSRP, Anaerobic digestion | <input type="checkbox"/> PSRP, Lime stabilization |
| <input type="checkbox"/> Equivalent PSRP (please explain) | <input type="checkbox"/> pH for domestic septage |

For each alternative utilized, provide the following if applicable:

Fecal Coliform Geometric Mean (cfu/gram total solids or MPN): _____

Fecal Test Date: _____

PSRP Certification Attached: Yes No

Indicate by a check mark that all of the following are being followed for Class B land application.

- Food crop harvesting restrictions
- Animal grazing restrictions
- Public access restrictions

Indicate by a check mark that the following have been satisfied. For domestic septage, the following pathogen reduction requirements must be satisfied for application to agricultural land, forest, or reclamation site.

- | | |
|--|--|
| <input type="checkbox"/> pH \geq 12 for 30 minutes | <input type="checkbox"/> Animal grazing restrictions |
| <input type="checkbox"/> Food crop harvesting restrictions | <input type="checkbox"/> Public access restrictions |

4. Vector attraction reduction alternatives (Instructions, Pages 9-11)

Indicate by a check mark which vector attraction reduction option(s) is/will be implemented prior to, or after use or disposal.

- 38% volatile solids reduction
- Lab demonstration of volatile solids reduction anaerobically
- Lab demonstration of volatile solids reduction aerobically
- $SOUR \leq 1.5$ mg O₂/hour/gram total solids at 20°C (maximum 2% solids)
- Aerobic process for 14 days at $> 40^\circ\text{C}$
- pH to ≥ 12 s.u. and retain at 11.5 s.u. for at least 22 hours
- $\geq 75\%$ solids for stabilized solids
- $\geq 90\%$ solids for unstabilized solids

Indicate by a check mark that the following have been satisfied. For domestic septage, one of the following vector attraction reduction requirements must be satisfied for application to agricultural land, forest, or reclamation site.

- pH \geq for at least 30 minutes
- Incorporation into the soil
- Subsurface injection

5. Well information (Instructions, Page 11)

Provide the following for **ALL WELLS** located on and within 500 feet of the processing, application, and/or disposal area.

1. Number	2. Type	3. Producing Y/N	4. Cased Y/N	5. Plugged Y/N	6. Capped Y/N	7. Action

6. Technical Reports (Instructions, Page 11)

Please check yes or no to indicate which additional reports are submitted as part of the application.

Report Name	Yes	No
Technical Report 2.0 Sewage Sludge Composting		
Technical Report 3.0 Marketing and Distribution		
Technical Report 4.0 Sewage Sludge Surface Disposal		

7. SWORN AFFIDAVIT OF OWNER AND APPLICANT (Instructions, Page 12)

PERMIT NUMBER: _____

APPLICANT: _____

I, _____,
(Typed or printed name) (Title)

understand that I am responsible for operating the site described in the legal description in accordance with the Texas Commission on Environmental Quality (TCEQ) requirements in 30 TAC Chapter 332 or 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 this authorization.

Signature: _____ 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

COMPLETE THE FOLLOWING ONLY IF THE LANDOWNER IS NOT THE SITE OPERATOR

I, _____,
(Typed or printed name) (Title)

owner of the land described in the attached legal description, have all rights and covenants to authorize, the applicant for this Permit, to use this site for the composting, disposal and/or land application Facility. I understand that 30 TAC Chapter 332 or 312 requires me to make a reasonable effort to see that the applicant complies with the required operating conditions stated in the above paragraph. 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 this authorization.

Signature: _____ 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

1. Renewal of existing authorization (Instructions, Page 19)

Provide the following information if requesting continued authorization to compost sewage sludge.

Complete this section only if composting is authorized in the existing permit

Date operation commenced _____

Location of operation _____

Type of bulking agent _____

Approximate amount of sludge composted _____

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

2. New authorization to compost sewage sludge (Instructions, Page 20)

a. Submit an **ORIGINAL General (County) Highway Map** that shows the following. Please indicate by a check mark that all the required information is provided:

- _____ Location of the composting facility
- _____ The sludge composting facility area
- _____ The applicant's property boundaries marked in **RED ink**

b. Has sewage sludge/septage previously been composted at this facility? _____ Yes _____ No
If yes, provide a use history of the composting operations.

c. Provide a detailed description of the sewage sludge site. Indicate by a check mark that all of the following information is included in the detailed description. Submit in a separate report as an attachment.

- _____ Amount of sludge originating off-site which is 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
- Design to minimize windblown material, odor, and vector control

d. Does the end product meet the requirements set forth in 30 TAC Section 332.72(d)(2)(A)(D)?

Yes No

e. Submit a site operating plan. The plan is to provide 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. Indicate by a check mark that all of the following information is included in the detailed description. Submit in a separate report as an attachment.

- 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 dumping 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
- Description of handling and/or disposal of materials not meeting 30 TAC Chapter 312

**DOMESTIC WASTEWATER PERMIT APPLICATION:
SEWAGE SLUDGE TECHNICAL REPORT 3.0**

SEWAGE SLUDGE MARKETING AND DISTRIBUTION

1. Activity information (Instructions, Page 21)

a. TCEQ Permit Number generating the Class A sewage sludge and the site used for the distribution storage center:

b. Provide a description of the marketing and distribution plan

c. Provide the following on all entities receiving sludge directly from the permittee:

Name: _____ Telephone number: _____
Company: _____ Fax number: _____
Street No. _____ Street name: _____ Street type: _____
City: _____ State: _____ ZIP code: _____
Permits: _____

Name: _____ Telephone number: _____
Company: _____ Fax number: _____
Street No. _____ Street name: _____ Street type: _____
City: _____ State: _____ ZIP code: _____
Permits: _____

If more space is needed, please submit an attachment to the application that includes this information.

d. Provide a copy of the label or information sheet provided to the entities receiving the sewage sludge.

e. Indicate by a check mark that the sewage sludge being sold, given away in bulk, bag or container for application to the land meet the following:

- _____ Metal concentrations in 30 TAC Section 312.82(a)
- _____ Vector attraction reduction requirements
- _____ Class A pathogen requirements

Type of record keeping: _____

**DOMESTIC WASTEWATER PERMIT APPLICATION:
SEWAGE SLUDGE TECHNICAL REPORT 4.0**

SEWAGE SLUDGE SURFACE DISPOSAL

1. Location information (Instructions, Page 22)

a. Indicate by marking that the following required maps submitted as part of the application and that they contain the required information?

- Original General Highway (County) Map
- USDA Natural Resources Conservation Service Soil Map
- Federal Emergency Management Map
- Site map

b. Indicate by a check mark if the proposed/existing disposal unit contains any of the following:

- Overlaps a designated 100-year frequency flood plain
- Soils with flooding classification
- Wetlands
- Located less than 60 meters from a fault
- Overlaps an unstable area
- None of the these

If a portion of the disposal unit is located within the 100-year frequency flood plain, provide the protective measures to be utilized including type and size of protective structures:

2. Disposal information (Instructions, Page 22)

Provide the following information:

Volume and frequency of sludge disposal: _____

Total dry tons placed on the active sludge unit per 365-day period: _____

Total dry tons placed on the active sludge unit over the life of the unit: _____

Indicate by a check mark that a current TCLP test result from each source is provided: _____

3. Facility information (Instructions, Page 22)

a. Does the active/proposed sludge unit have a liner with a maximum hydraulic conductivity of 1×10^{-7} cm/sec?

Yes No

If yes, describe the liner:

b. Does the active/proposed sludge unit have a leachate collection system? _____ Yes _____ No
If yes, describe the leachate collection system and the method used for leachate treatment and disposal:

If no to either a. or b., is the boundary of the active/proposed sludge unit less than 150 meters from the property line?
_____ Yes _____ No

If no, provide the actual closest distance in meters: _____
If no, do the concentrations for Arsenic, Chromium, or Nickel exceed the property line distances and associated metal concentrations as provided in 30 TAC Section 312.63(b)(2) and in the instructions for this item?
_____ Yes _____ No

c. Indicate by a check mark that design calculations prove that the 25-year, 24-hour rainfall event is prevented from leaving the surface disposal unit? _____ Yes _____ No

d. If utilized, describe the method of sludge dewatering and the average percent of solids disposed of in the active/proposed sludge unit:

e. Are crops grown or animals allowed to graze at the active surface disposal site? _____ Yes _____ No
If yes, provide detailed justification through management practices that public health and the environment are protected from any reasonable anticipated adverse effects of metals in the sewage sludge. Submit this information as a separate attachment to the report.

4. Site Development Plan (Instructions, Pages 22-23)

a. Provide a detailed description of the methods used to deposit sludge in the active/proposed sludge unit:

b. In addition to the detailed description, indicate by a check mark that the following information is provided:

- _____ Plan view and cross-section 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 the 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 Section 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

5. Groundwater Monitoring (Instructions, Page 23)

a. Is groundwater monitoring currently conducted at this active/proposed sludge unit, or are groundwater monitoring data otherwise available for this active sludge unit? Yes No

If yes, indicate by a check that a copy of available groundwater monitoring data is attached.

b. Has a groundwater monitoring program been prepared for this active/proposed sludge unit?

Yes No

If yes, indicate by a check that a copy of the groundwater monitoring program is attached.

c. Provide a certification from a qualified groundwater scientist that the aquifer below the active/proposed sludge unit will not be contaminated in accordance with 30 TAC Section 312.64(n).

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