



**APPLICATION FOR A PERMIT TO UTILIZE AND STORE  
WASTEWATER SLUDGE IN DELAWARE**

According to Part III, B. of the Departments Guidance and Regulations Governing the Land Treatment of wastes (<http://regulations.delaware.gov/AdminCode/title7/7000/7100/7103.pdf>), a permit application shall consist of the initial application form specified by the Department combined with a Project Development Report (PDR) containing any supplementary information and analysis necessary to enable the Department to review the proposed project to determine if it is consistent with Delaware law and regulation. An application shall demonstrate how the applicant plans to comply with the applicable requirements of Department regulations, as well as any additional operating requirements set forth in these regulations that are specifically applicable to the particular type of operation that is proposed.

**PRELIMINARY INFORMATION**

1. Name of facility: \_\_\_\_\_

Mailing address: \_\_\_\_\_

Location (street address, if different from mailing address):  
\_\_\_\_\_

2. Name of contact: \_\_\_\_\_

Mailing address: \_\_\_\_\_

Telephone number: \_\_\_\_\_

**3. Description of Sewage Sludge Use or Disposal Practices.** Provide the following information on the quantity (total dry metric tons per year) of sewage sludge handled or proposed to be handled at the applicant's facility:

Amount of sewage sludge:

- \_\_\_\_\_ generated at the facility:
- \_\_\_\_\_ received from off-site:
- \_\_\_\_\_ land applied:
- \_\_\_\_\_ sent off-site for land application:
- \_\_\_\_\_ sent off-site for further treatment or distribution
- \_\_\_\_\_ for ultimate land application:
- \_\_\_\_\_ used or disposed of by a method not described above, including sewage sludge sent to a municipal solid waste landfill (explain below):

\_\_\_\_\_

**4. Sludge Quality Data.** Attach sewage sludge data for the parameters listed in Section 117.2 of the Department's Guidance and Regulations Governing the Land Treatment of Wastes, pathogen reduction information in accordance with Sections 132-134, and vector attraction reduction information in accordance with Section 135.

5. Is this permit application being completed by a representative of the wastewater treatment facility? If no, list the relation of the entity completing the permit application (e.g. the operator or a separate company interested in utilizing sewage sludge).

\_\_\_\_\_ Yes \_\_\_\_\_ No If no, please explain \_\_\_\_\_

6. Indicate type of facility:

- \_\_\_\_\_ Federally owned treatment works  
\_\_\_\_\_ Privately owned treatment works  
\_\_\_\_\_ Publicly owned treatment works (POTW)

If a POTW, provide the following:

Total population served: \_\_\_\_\_

Design influent flow (MGD): \_\_\_\_\_

\_\_\_\_\_ Other \_\_\_\_\_

7. Applicants NPDES Permit Number (if applicable) \_\_\_\_\_

8. Does this applicant perform any collection, treatment, storage, application to land, or disposal of sewage on Indian Lands?

\_\_\_\_\_ Yes \_\_\_\_\_ No

9. Provide a topographic map (or other appropriate map if a topographic map is unavailable) that shows the following three items of information. Include the area one mile beyond all property boundaries of the applicants facility (submit as many maps as necessary to show the entire area).

- a. Location of sewage sludge management facilities (including on-site disposal sites).
- b. Location of all water bodies.
- c. Location of wells used for drinking water listed in public records or otherwise known to the applicant within 1/4 mile of the property boundaries.

10. Other Requirements:

- a. List all Federal, State, and local permits or construction approvals received or applied for that are not described above that regulate sewage sludge management practices used by this applicant.

\_\_\_\_\_  
\_\_\_\_\_

- b. Submit, with the application information, any other information that the permitting authority requests to assess sewage sludge use and disposal practices or identify appropriate requirements.

## SECTION A. SEWAGE SLUDGE GENERATION OR PREPARATION

Complete Section A if the applicant generates sewage sludge or derives material from sewage sludge.

### A.1. Sewage Sludge Use and Disposal

- a. Total dry metric tons per year generated \_\_\_\_\_
- b. Total dry metric tons per year received from off site \_\_\_\_\_

If sewage sludge is received from off-site, list the owner and NPDES permit number (if applicable) of the off-site facility. Also list the quantity (total dry metric tons per year) of sewage sludge received from each source (attach additional pages if necessary).

Owner: \_\_\_\_\_  
NPDES Permit Number: \_\_\_\_\_  
Quantity: \_\_\_\_\_

### A.2. Off-Site Treatment or Distribution. To be completed if the applicant sends sewage sludge to another facility for treatment or distribution prior to application to the land.

- a. Total dry metric tons per year sent to receiving facility by the applicant \_\_\_\_\_
- b. Name and address of facility to which sewage sludge is sent

Name \_\_\_\_\_  
Address \_\_\_\_\_

- c. Which class of pathogen reduction (if any) is met by the sewage sludge before it leaves the applicant's facility? \_\_\_\_\_

Describe the process(es) (if any) used to meet this class of pathogen reduction. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- d. Which of the following vector attraction reduction requirements (if any) is met by the sewage sludge before it leaves the applicants facility?

- \_\_\_\_\_ Minimum 38 percent reduction in volatile solids  
\_\_\_\_\_ Anaerobic process, with bench-scale demonstration  
\_\_\_\_\_ Aerobic process, with bench-scale demonstration  
\_\_\_\_\_ Specific oxygen uptake rate (SOUR) for aerobically digested sludge  
\_\_\_\_\_ Aerobic processes plus raised temperature  
\_\_\_\_\_ Raise pH to 12 and retain at 11.5  
\_\_\_\_\_ 75 percent solids with no unstabilized solids  
\_\_\_\_\_ 90 percent solids with unstabilized solids  
\_\_\_\_\_ Other, explain. \_\_\_\_\_

Describe the process(es) used to meet this vector attraction reduction requirement. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

e. Check all activities performed by the receiving facility on the applicants sewage sludge (if applicable).

- Dewatering
- Composting
- Stabilization
- Pathogen reduction
- Vector attraction reduction
- Blending with sewage sludge from other treatment works
- Addition of bulking materials (wood chips, sawdust, manure)
- Placement in bag or other container
- Sale or give-away to public
- Other

Describe the activities identified above. Attach a copy of all labels or notices that accompany the product.

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**A.3.** To be completed if the applicant **processes or packages sewage sludge for sale or give-away in a bag or other container for application to land** (Distribution and Marketing permits)

a. Provide the total dry metric tons per year processed or packaged for sale or give-away in a bag or other container for application to land. \_\_\_\_\_

b. Indicate which class of pathogen reduction is met by the sewage sludge processed or packaged for sale or give away in a bag or other container for application to land. \_\_\_\_\_

Describe the process(es) used to meet this class of pathogen reduction. \_\_\_\_\_

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Are all processes used to meet this class of pathogen reduction provided by the applicant?

Yes  No

If no, explain. \_\_\_\_\_

c. Which of the following vector attraction reduction requirements is met by the sewage sludge processed or packaged for sale or give away in a bag or other container for application to land?

- Minimum 38 percent reduction in volatile solids
- Anaerobic process, with bench-scale demonstration
- Aerobic process, with bench-scale demonstration
- Specific oxygen uptake rate (SOUR) for aerobically digested sludge
- Aerobic processes plus raised temperature
- Raise pH to 12 and retain at 11.5
- 75 percent solids with no unstabilized solids
- 90 percent solids with unstabilized solids
- Other, explain. \_\_\_\_\_

Describe the process(es) used to meet this vector attraction reduction requirement. \_\_\_\_\_

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Are all processes used for vector attraction reduction provided by the applicant?

\_\_\_\_\_ Yes \_\_\_\_\_ No

If no, explain: \_\_\_\_\_

d. Briefly describe any blending or manufacturing processes employed prior to sale or give away in a bag or other container.

\_\_\_\_\_  
\_\_\_\_\_

e. Attach a copy of all labels or notices that accompany the product being sold or given away.

**A.4.** To be completed if sewage sludge from this facility is **applied to land** (Agricultural Utilization permits).

a. Provide the total dry metric tons per year from this facility applied or proposed to be applied and list each land application site

<u>Amount</u>	<u>Land Application Site</u>
_____	_____
_____	_____
_____	_____

b. Have all land application sites been identified at the time of permit application?

\_\_\_\_\_ Yes \_\_\_\_\_ No

If no, submit a copy of the land application plan with this application information. Complete Section B only for Class B land application sites identified at the time of permit application.

**SECTION B. LAND APPLICATION (Agricultural Utilization Permits for Class B Sludge)**

Complete Section B if the applicant seeks a permit to apply sewage sludge to land.

**B.1. Amount of Sewage Sludge Applied to Land Application Site.** Provide the total dry metric tons per hectare per year applied to this site. \_\_\_\_\_

**B.2. Site Information.**

a. Provide the name (if any) and street address of this land application site.

Name \_\_\_\_\_  
Address \_\_\_\_\_  
\_\_\_\_\_

b. Provide the size of the land application site in hectares. \_\_\_\_\_

c. Federal, State, and local permit number(s) applicable to this land application site (attach additional pages if necessary).

<u>Permit Number</u>	<u>Type of Permit</u>
_____	_____
_____	_____
_____	_____

d. Is this site owned/operated by the applicant?  
\_\_\_\_\_ Yes \_\_\_\_\_ No

e. What is the concentration of total nitrogen (as N on dry weight basis) in the bulk sewage sludge applied to this land application site? \_\_\_\_\_

**B.3. Person that Land Applies the Sewage Sludge.** Sewage sludge is applied to the site by:

\_\_\_\_\_ Facility generating the sewage sludge  
\_\_\_\_\_ Site owner/operator  
\_\_\_\_\_ Other \_\_\_\_\_

Provide the name and address of the person that applies sewage sludge to this site.

Name \_\_\_\_\_  
Address \_\_\_\_\_  
\_\_\_\_\_

**B.4. Type of Land Application Site**

\_\_\_\_\_ Agricultural  
\_\_\_\_\_ Forest  
\_\_\_\_\_ Public contact  
\_\_\_\_\_ Reclamation site  
\_\_\_\_\_ Lawn or home garden  
\_\_\_\_\_ Other \_\_\_\_\_

**B.5. Vegetation Grown on Site.**

- a. What type of vegetation is grown on this site? \_\_\_\_\_
- b. What is the nitrogen requirement for this vegetation? \_\_\_\_\_

**B.6. Other facilities.** Is sewage sludge sent to this land application site by any facilities other than the applicant's facility?  
\_\_\_\_\_ Yes \_\_\_\_\_ No

If yes, provide the names and addresses of other persons that send sewage sludge to the site.

Name \_\_\_\_\_  
Address \_\_\_\_\_  
\_\_\_\_\_

**B.7. Sewage Sludge Applied to Land in a Different State.** Is this land application site located in a State other than the State where the sewage sludge is generated or the material is derived from sewage sludge?  
\_\_\_\_\_ Yes \_\_\_\_\_ No

If yes, describe how the applicant plans to notify the permitting authority for the State where the land application site is located. \_\_\_\_\_

**B.8. Land Application Cumulative Pollutant Loading Rates.** Is this sewage sludge applied to land subject to cumulative pollutant loading rates?  
\_\_\_\_\_ Yes \_\_\_\_\_ No

If yes, have the cumulative pollutant loading rates of each applicable pollutant in the sludge been determined?  
\_\_\_\_\_ Yes \_\_\_\_\_ No

If yes, provide the allotment remaining for the following pollutants (in kilograms per hectare).

_____ Arsenic	_____ Lead	_____ Nickel
_____ Cadmium	_____ Mercury	_____ Selenium
_____ Chromium	_____ Molybdenum	_____ Zinc
_____ Copper		

**B.9. Pathogen Reduction.**

- a. Which class of pathogen reduction is met by the sewage sludge applied to this site? \_\_\_\_\_
- b. Describe the process(es) used to meet this class of pathogen reduction. \_\_\_\_\_  
\_\_\_\_\_
- c. Are all processes used to meet this class of pathogen reduction provided by the applicant?  
\_\_\_\_\_ Yes \_\_\_\_\_ No

If no, explain. \_\_\_\_\_

**B.10. Vector Attraction Reduction.**

a. Which of the following vector attraction reduction requirements is met by the sewage sludge applied to this site?

- Minimum 38 percent reduction in volatile solids
- Anaerobic process, with further bench-scale demonstration
- Aerobic process, with further bench-scale demonstration
- Specific oxygen uptake rate (SOUR) for aerobically digested sludge
- Aerobic processes plus raised temperature
- Raise pH to 12 and retain at 11.5
- 75 percent solids with no unstabilized solids
- 90 percent solids with unstabilized solids
- Injection below land surface
- Incorporation into soil within 6 hours
- Covering active sewage sludge unit daily
- Other, explain. \_\_\_\_\_

b. Describe the process(es) used to meet this vector attraction reduction requirement. \_\_\_\_\_  
\_\_\_\_\_

c. Are all processes used for vector attraction reduction provided by the applicant?

Yes  No

If no, explain. \_\_\_\_\_



## **SECTION C. SLUDGE STORAGE**

Complete Section C if the applicant proposes to store sludge in Delaware.

**C.1.** Is the application requesting a temporary or permanent sludge storage permit.

\_\_\_\_\_ Temporary \_\_\_\_\_ Permanent

**C.2.** The applicant shall submit all applicable information required in 7 Del. Admin. C. §7103-150 of Delaware's "Guidance and Regulations Governing the Land Treatment of Waste", Part III, B., "Land Treatment of Sludges and Sludge Products" <http://regulations.delaware.gov/AdminCode/title7/7000/7100/7103.pdf> with the submittal of this permit application in their project development report.

**SECTION D. CERTIFICATION**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information 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 and imprisonment for knowing violations.

Signature of Officer: \_\_\_\_\_  
Name of Officer: \_\_\_\_\_  
Official Title of Officer: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_  
Date Signed: \_\_\_\_\_