



**BUREAU OF WATER**  
**SLUDGE DISPOSAL SUPPLEMENT FOR NPDES AND ND PERMIT APPLICATIONS**

Facility Name: \_\_\_\_\_

Permit Number: SC00\_\_\_\_\_ (leave blank for a new facility)

or ND00\_\_\_\_\_

Please check your proposed or current sludge disposal procedure:

**I. Existing Facilities:**

- \_\_\_ Lagoon or other facility with no routine sludge disposal. Please attach a letter that addresses the approximate schedule for sludge removal and address the anticipated disposal method (note that the proposed sludge disposal method must be approved by the Department prior to initiation).
  
- \_\_\_ Sludge disposal at another wastewater treatment facility. Attached is a recent letter of acceptance dated\_\_\_\_\_. This letter must include the NPDES or ND number of the treatment facility accepting the sludge for disposal. If no previous SCDHEC approval has been granted on the disposal method, then please include a detailed report on the existing sludge disposal method. See the attached requirements for Sludge Disposal Report A. If a previous SCDHEC approval has been granted, then include a recent analysis that shows the non-hazardous nature of the sludge or a signed statement that the sludge characteristics have not changes since the last analysis.
  
- \_\_\_ Sludge disposal at a landfill. If the landfill is SWAIP (special waste) approved, an recent acceptance letter from the landfill is acceptable. If the landfill is not SWAIP approved, attached is SCDHEC Solid and Hazardous Waste approval dated \_\_\_\_\_, or other SCDHEC approval dated \_\_\_\_\_. If no previous approval has been granted on the disposal method, then please include a detailed report on the existing sludge disposal method. See the attached requirements for Sludge Disposal Report B.
  
- \_\_\_ Sludge disposal by Beneficial Use of Sludge. Attached is SCDHEC approval letter or program approval dated \_\_\_\_\_. If no previous approval has been granted on the disposal method, then please include a detailed report on the existing sludge disposal method. See the attached requirements for Sludge Disposal Report C.

**II. Proposed Facilities:**

- \_\_\_ Lagoon or other facility with no routine sludge disposal. Please attach a letter that addresses the approximate schedule for sludge removal and address the anticipated disposal method (note that the proposed sludge disposal method must be approved by the Department prior to initiation).
  
- \_\_\_ Sludge disposal at another wastewater treatment facility. Please include a detailed report on the proposed sludge disposal method. See the attached requirements for Sludge Disposal Report A.
  
- \_\_\_ Sludge disposal at a landfill. Please include a detailed report on the proposed sludge disposal method. See the attached requirements for Sludge Disposal Report B.
  
- \_\_\_ Sludge disposal by Beneficial Use. Please include a detailed report on the proposed sludge disposal method. See the attached requirements for Sludge Disposal Report C.

**Send this form and the appropriate disposal report (if applicable) with your NPDES or ND permit application.**

**ALSO SEE ATTACHED INSTRUCTIONS**

## **INSTRUCTIONS FOR COMPLETING THE SLUDGE DISPOSAL SUPPLEMENT**

### **1. Purpose:**

This supplement will be completed as part of the NPDES or ND permit application. These applications and this supplement are submitted with the Preliminary Engineering Report (PER) submittal to DHEC on a new wastewater treatment plant (WWTP) or other sludge treatment facility. Also, this supplement will be used when reapplying for an expiring NPDES or ND permit.

### **2. Item by Item Instructions:**

- I. Existing Facilities: Check the appropriate item. Where required in the item checked, fill in the blank with the appropriate date. Also, when required in the item checked, please include the appropriate sludge disposal report or other required information with the submittal of this supplement. Skip this section if the facility is proposed.
- II. Proposed Facilities: Check the appropriate item. Where required in the item checked, fill in the blank with the appropriate date. Also, when required in the item checked, please include the appropriate sludge disposal report or other required information with the submittal of this supplement. Attach a copy of the PER for the proposed facility. Skip this section if the facility is existing.

### **3. Office Mechanics:**

Staple the Sludge Disposal Supplement to the NPDES or ND permit application. For reapplication of an expiring NPDES or ND permit, send to the Permit and Data Administration Section at the following Address:

Department of Health & Environmental Control  
Bureau of Water  
2600 Bull Street  
Columbia, South Carolina 29201

For a new facility, an expansion of an existing facility, or a commercial sludge or septage disposal site, send the application package with the PER to the appropriate Section Manager at the above address. The application will be processed by the procedures of the Bureau of Water. Also, it will be filed in the Bureau's project file.

# SLUDGE DISPOSAL AT ANOTHER WWTP: SLUDGE DISPOSAL REPORT A

## REQUIREMENTS FOR A SLUDGE REPORT A

The following information, at a minimum, must be addressed in report format with the supporting documents included in the report.

### *A. Sludge Generator*

1. Name.
2. Address.
3. Phone Number.
4. County.
5. NPDES or ND Permit Number (if applicable).
6. Plant capacity (MGD).
7. Amount of sludge generated per year (dry weight tons).
8. Size, description, and location of sludge storage.
9. Amount of stockpiled sludge and sludge age.
10. Description of sludge treatment (sludge must be stabilized)  
Process to Significantly Reduce Pathogens (PSRP)\*, if any.  
Process to Further Reduce Pathogens (PFRP)\*, if any.
11. Current method of sludge disposal.
12. Letter of acceptance, including NPDES or ND number, of facility accepting sludge.
13. Amount of sludge transported, reported in dry tons per year.
14. Estimated percent solids and total liquid volume.

\* - Provide a short description of PSRP or PFRP from State Regulation 61-9.503.32.

### *B. Sludge Analysis Information*

1. TCLP toxicity test with acceptable ignitability, corrosivity, and reactivity lab report or rationale to demonstrate the non-hazardous nature of the sludge. (for existing facilities, a signed statement that no change in sludge constituents has occurred since the last EP or TCLP toxicity test and provide copy of the latest test results.)
2. Name of the certified lab conducting the analysis (if applicable).  
address.  
phone number.
3. Other compounds required by NPDES or ND permit or present in effluent to treatment plant (if applicable).

Note: You may request a copy of the State Regulation 61-9.503, "State Domestic Sludge Management", and/or the SCDHEC guidance manual, "Beneficial Use of Wastewater Biosolids", dated February, 1996, for use in preparing documentation.

# SLUDGE DISPOSAL AT A LANDFILL: SLUDGE DISPOSAL REPORT B

## REQUIREMENTS FOR A SLUDGE REPORT B

The following information, at a minimum, must be addressed in report format with the supporting documents included in the report.

### A. *Sludge Generator*

1. Name.
2. Address.
3. Phone Number.
4. County.
5. NPDES or ND Permit Number (if applicable).
6. Plant capacity (MGD).
7. Amount of sludge generated per year (dry weight tons).
8. Size, description, and location of sludge storage.
9. Amount of stockpiled sludge and sludge age.
10. Description of sludge treatment (sludge must be stabilized)  
Process to Significantly Reduce Pathogens (PSRP)\*, if any.  
Process to Further Reduce Pathogens (PFRP)\*, if any.
11. Current method of sludge disposal.
12. Letter of acceptance from an official of the landfill accepting the sludge for disposal. If the landfill is not SWAIP (special waste) approved, an additional approval letter from SCDHEC, Bureau of Solid and Hazardous Waste Management must be submitted.
13. Amount of sludge transported, reported in dry tons per year.
14. Estimated percent solids and total liquid volume.

\* - Provide a short description of PSRP or PFRP from State Regulation 61-9.503.32.

### B. *Sludge Analysis Information*

1. TCLP toxicity test with acceptable ignitability, corrosivity, and reactivity lab report or rationale to demonstrate the non-hazardous nature of the sludge. (for existing facilities, a signed statement that no change in sludge constituents has occurred since the last EP or TCLP toxicity test and provide copy of the latest test results.)
2. Name of the certified lab conducting the analysis (if applicable).  
address.  
phone number.
3. Other compounds required by NPDES or ND permit or present in effluent to treatment plant (if applicable).

Note: You may request a copy of the State Regulation 61-9.503, "State Domestic Sludge Management", and/or the SCDHEC guidance manual, "Beneficial Use of Wastewater Biosolids", dated February, 1996, for use in preparing documentation.

A minimum of 15% solids is usually required for disposal at most landfills. Contact landfill owner for specific requirements.

# SLUDGE DISPOSAL BY LAND APPLICATION OR OTHER BENEFICIAL USE: SLUDGE DISPOSAL REPORT C

## REQUIREMENTS FOR A SLUDGE REPORT C

The following information, at a minimum, must be addressed in report format with the supporting documents included in the report.

### A. *Sludge Generator*

1. Name.
2. Address.
3. Phone Number.
4. County.
5. NPDES or ND Permit Number (if applicable).
6. Plant capacity (MGD).
7. Amount of sludge generated per year (dry weight tons).
8. Size, description, and location of sludge storage.
9. Amount of stockpiled sludge and sludge age.
10. Description of sludge treatment (sludge must be stabilized)  
Process to Significantly Reduce Pathogens (PSRP)\*, if any.  
Process to Further Reduce Pathogens (PFRP)\*, if any.
11. Current method of sludge disposal.
12. Letter of acceptance, including NPDES or ND number, of facility accepting sludge (if applicable).
13. Amount of sludge transported, reported in dry tons per year.
14. Estimated percent solids and total liquid volume.

\* - Provide a short description of PSRP or PFRP from State Regulation 61-9.503.32.

### B. *Sludge Analysis Information*

1. TCLP toxicity test with acceptable ignitability, corrosivity, and reactivity lab report or rationale to demonstrate the non-hazardous nature of the sludge. (for existing facilities, a signed statement that no change in sludge constituents has occurred since the last EP or TCLP toxicity test and provide copy of the latest test results.)
2. Name of the certified lab conducting the analysis (if applicable).  
address.  
phone number.
3. Other compounds required by NPDES or ND permit or present in effluent to treatment plant (if applicable).
4. Method used to determine the reliability of sludge composition.
5. Total organic nitrogen (mg/kg).
6. Total inorganic nitrogen (mg/kg).
7. Ammonia nitrogen (mg/kg)
8. pH
9. Calcium Carbonate Equivalency (only required if the sludge is lime or alkaline treated).
10. Percent total solids.
11. Total arsenic (mg/kg).
12. Total cadmium (mg/kg).
13. Total copper (mg/kg).
14. Total lead (mg/kg)
15. Total mercury (mg/kg).
16. Total molybdenum (mg/kg).
17. Total nickel (mg/kg).
18. Total selenium (mg/kg).
19. Total zinc (mg/kg).

**C. Application of Sludge** (only required if the permittee will be land applying the sludge)

1. Description of method of transport to the proposed land sites.
2. Approximate time of year or schedule for the sludge application and how it relates to crop planting and/or harvesting.
3. Description of application method(s).
4. Name of contractor applying sludge (if applicable).  
address.  
phone number.
5. Type of equipment used to spread the sludge.

**D. Application Site Information** (only required if the permittee will be land applying the sludge)

1. General
  - a. Name, address, and signature of landowner.
  - b. Name, address, and party managing the site.
  - c. Approximate schedule for sludge application.
  - d. Previous sludge application amounts covered under Permit #\_\_\_\_\_.
  - e. Additional soil additives applied on site (if any).
  - f. Description of method to control access to the site.
  - g. Method of odor control.
  - h. Letter from each county stating that the proposed land application activity is consistent with the county solid waste management plan (new and/or expanding projects only).
2. Site Description  
Scale Maps (preferably topographic & soils maps) indicating:
  - a. Site location.
  - b. Slope and drainage characteristics including the surrounding land.
  - c. Adjacent land usage and locations of inhabited dwellings.
  - d. All water supply wells within 1000 feet.
  - e. Adjacent surface water bodies.
  - f. Sludge disposal boundaries and buffer zones.
  - g. location of proposed or existing groundwater monitoring wells (if applicable).
  - h. Private roads, public roads, and right-of-ways.
  - i. Certification of site suitability (see the *Beneficial Use of Wastewater Biosolids* manual, appendix E for more information).
3. Site Monitoring Plan  
Proposed method of site monitoring indicating:
  - a. Groundwater monitoring well locations and proposed construction details and method of sampling (if applicable).
  - b. Soil monitoring methods and locations.
  - c. Surface water sampling methods and locations (if applicable).
  - d. Proposed parameters and frequency of sampling groundwater, surface water and/or soil.
  - e. Metals testing, if required, due to previous application.
  - f. Monitoring schedule to insure that soil pH will remain in agronomic ranges during the land application project.
4. Sludge Application Plan
  - a. Typical crops to be grown and crop management plan.
  - b. Sludge application rate (tons/acre on a dry weight basis).
  - c. Total organic nitrogen (mg/kg).
  - d. Total inorganic nitrogen (mg/kg).
  - e. Ammonia nitrogen (mg/kg)
  - f. pH
  - g. Calcium Carbonate Equivalency (only required for lime/alkaline treated sludge).
  - h. Percent total solids.

- i. Total arsenic (mg/kg).
- j. Total cadmium (mg/kg).
- k. Total copper (mg/kg).
- l. Total lead (mg/kg)
- m. Total mercury (mg/kg).
- n. Total molybdenum (mg/kg).
- o. Total nickel (mg/kg).
- p. Total selenium (mg/kg).
- q. Total zinc (mg/kg).
- r. Formula and calculations used to determine plant available nitrogen and application rate.
- s. Estimated hydraulic loading rate (if applicable).
- t. Certification of crop management plan (see the *Beneficial Use of Wastewater Biosolids* manual, appendix E for more information).

***E. Distribution & Marketing or other Alternative Programs***

1. If a Class "A/EQ" material is produced for sale or give away, please attach the product use information sheet that is distributed with the sludge.
2. Include an explanation of how the product is made available to the consumer (truck pick up, bag, bulk, etc).
3. For proposed distribution and marketing programs, explain the anticipated user base and possible product demand for the material compared to projected production.
4. For existing distribution and marketing programs, please summarize the last calendar year's product production versus actual material sold and/or given away.
5. For other alternative beneficial uses (landfill cover, brick making, etc), please attach a detailed PER regarding the proposed use.
6. Include a letter from the county stating that the proposed sludge use activity is consistent with the county solid waste management plan (new and/or expanding projects only).

Note: You may request a copy of the State Regulation 61-9.503, "State Domestic Sludge Management", and/or the SCDHEC guidance manual, "Beneficial Use of Wastewater Biosolids", dated February, 1996, for use in preparing documentation.