

## **Instructions for Application for Construction/Operation Permit for Sludge Disposal and Utilization Schedule G**

Schedule G must be submitted for all projects where sludges originate at a treatment works as defined in 35 Illinois Administrative Code Subtitle C of the Illinois Pollution Control Board Regulations.

Complete all items of the form where applicable.

### **2.7 Sludge Hauling**

Municipal water and wastewater treatment plant sludge which is to be applied to land is exempt from the permitting and manifesting requirements pursuant to Section 21(j) of the Environmental Protection Act provided the municipality has submitted semi-annual Sludge Management Reports to IEPA.

2.7.1 The name(s) and address(es) of the sludge hauler(s) should be indicated. The method of transporting the sludge shall be included in the permit application to construct and/or operate the sewage treatment works or the permit application to apply the sludges to land.

The application for the permit which includes the sludge transportation must include a detailed description of the equipment to be used for transportation.

2.7.2 For industrial sludges provide the Illinois Generator ID Number and the Authorization Number for the sludge to be applied. If you do not have the preceding numbers contact the Division of Land Pollution Control, Illinois Environmental Protection Agency.\*

Transportation of industrial sludge, whether to a landfill or to a land application site, must be performed in accordance with the permitting, manifesting, and other requirements of 35 Ill. Adm. Code, Part 809 (Special Waste Hauling) administered by the Division of Land Pollution Control.

3. Methods of Sludge Disposal and/or Utilization. Check the applicable method of disposal or utilization.

### **3.1 Land Application**

Part 391, Design Criteria for Sludge Application on Land is the criteria to be used for the land application of municipal sludge for beneficial utilization of nutrients for crops or vegetation. This document, if used, will substantially reduce administrative procedures and allow the use of municipal sludge to be applied more readily at agronomic rates in an environmentally acceptable manner on land throughout the State. Therefore, prior to completing the schedule, refer to the above referenced design criteria to determine how the document applies to your proposed project.

3.1.2 If the proposed land application site is known indicate the location and complete the site location to the nearest quarter section including section, township, range and principal meridian and provide site information in accordance with Section 391.202(a)(6). Additionally name the U.S. Geological Survey quadrangle map or plat map used in making the above determination. For industrial sludges, the disposal site must be selected and appropriate site information submitted in the permit application.

3.1.3 Provide soil survey map and soil descriptions for disposal site.

3.1.4 Indicate if sludge is to be stored on the disposal site. For off-site storage of municipal sludge, refer to Part 391 noted above, to determine the criteria for sludge storage.

3.1.5 If no application site has been selected submit an example sludge user information sheet. If application sites have been chosen, completed, signed sludge user information sheets shall be submitted as part of the application.

For industrial projects the sludge disposal site must be selected and completed, signed sludge user information sheets shall be provided to the Agency, as permits for industrial projects are site specific.

For permit renewal applications sludge application sites shall be identified and completed, signed sludge user information sheets shall be submitted as part of the permit application.

Letters of acceptance signed by the site owner are acceptable in lieu of the site owner signature on the user information sheets.

3.1.6 Submit a narrative description and technical basis of the project including but not limited to the following:

1. Major Unit Operations: The complete description including specifications, manufacturer's drawings, etc., for such items as spray irrigation headers, pumps, piping, sludge application equipment, etc., must be provided.
2. Operations Contingency: The narrative should include when the sludges will be applied to the land, and include contingencies when sludge cannot be applied to land due to climatic or cropping conditions. Contingencies should include storage at STP site, landfilling or other sludge management methods.
3. Method of Application: A detailed narrative of the method of application using such procedures as spray irrigation, surface spreading, incorporation by tillage equipment, injection or other methods.

4. Runoff Control: Runoff control measures shall be considered for all projects. For projects which do not meet site characteristic requirements of Part 391 or for land reclamation projects additional runoff control measures such as vegetative buffer areas or retention basins may be required.
5. Operating Techniques: Describe special considerations for operating techniques for special sites.
6. Odor Control: It is recommended that sludge be incorporated or injected to minimize odor complaints. Land application of partially, digested sludge or wastewater lagoon sludge shall be by injection or immediate incorporation into the soil.
7. Monitoring Program: Sludge, soil, groundwater, surface water and plant tissue monitoring shall be in accordance with Part 391 or Agency permit.

Depending on the situation and the constituents to be monitored, the monitoring well design will vary. It is recommended that the Division of Land Pollution Control (DLPC) of the Illinois Environmental Protection Agency, the State Water Survey and/or the State Geological Survey be contacted for advice and assistance in the design of the monitoring wells.

An agronomist may be utilized to assist with soil and plant tissue monitoring at project sites.

8. Site Access: Access shall be provided for all sampling points on the project.
9. Site Description: Indicate the distances to: nearest dwellings, potable water supply wells, watercourses, highways, known field titles, and incorporated areas. Provide a general narrative concerning site selection criteria for selecting new sites.

### 3.2 Landfilling\*

If on-site landfilling is proposed describe environmental controls proposed for groundwater and surface water protection (i.e. subsurface soil conditions, liner and capping provisions, groundwater monitoring, etc.).

3.2.2 Indicate the name and location of the landfill designated to receive the sludge.

3.2.3 The Illinois Environmental Protection Agency permit numbers refer to landfill operations. The landfills are issued permits by the Division of Land Pollution Control (DLPC), Illinois Environmental Protection Agency. Contact the Division of Land Pollution Control for specific requirements for disposal at a landfill.

### 3.3 Incineration\*

3.3.2 The Illinois Environmental Protection Agency permit numbers refer to permits for air pollution control devices. Such devices are issued permits by the Division of Air Pollution Control (DAPC), Illinois Environmental Protection Agency. Contact the Division of Air Pollution Control for specific requirements to air pollution control devices.

3.3.3 The disposal of incinerator residue must be done in an environmentally sound manner. Contact the Division of Land Pollution Control for specific requirements for solid waste disposal.

## 4. Sludge Characteristics (minimum requirements)

Sewage treatment plants must submit analyses for the following parameters:

% TS, % VS, % Volatile Acids if anaerobically digested, pH, Phosphorus, Potassium, Cadmium, Nickel, Zinc, Lead, Copper, Manganese, Ammonia, and Total Kjeldahl Nitrogen. Other parameters may be required pursuant to generator's permit or federal regulations.

Water treatment plants must submit analyses for the following parameters:

% TS, pH Arsenic, Barium, Cadmium, Chromium (hexavalent) Chromium (total), Copper, Mercury, Nickel, Selenium, Silver, Zinc, % CaCO<sub>3</sub> equivalent, and radium for those public water supplies which have wells withdrawing water which contains naturally occurring radium.

Industries must perform an analysis for all the indicated parameters, and must also include any organic priority pollutant present in the sludge.

For industrial sludges include results of any hazardous waste characteristic tests performed for: 1) EP Toxicity, 2) Corrosivity, 3) Ignitability and 4) Reactivity.

\*For projects involving Division of Land Pollution Control or Division of Air Pollution Control requirements, the appropriate division can be contacted at the following address and telephone number.

Division of Land Pollution Control  
 Illinois Environmental Protection Agency  
 1021 North Grand Ave. East  
 Springfield, Illinois 62794-9276  
 217/782-6760

Division of Air Pollution Control  
 Illinois Environmental Protection Agency  
 1021 North Grand Ave. East  
 Springfield, Illinois 62794-9276  
 217/782-7326

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1/2, Section 1039. Disclosure of this information is required under that section. Failure to do so may prevent this form from being processed and could result in your application being denied.

**For IEPA Use:**

LOG #

DATE RECEIVED:

**ILLINOIS ENVIRONMENTAL PROTECTION AGENCY  
DIVISION OF WATER POLLUTION CONTROL  
PERMIT SECTION  
Springfield, Illinois 62794-9276**

**SCHEDULE G SLUDGE DISPOSAL & UTILIZATION**

1. Name of Project \_\_\_\_\_
2. General Information
  - 2.1 Source(s) \_\_\_\_\_
  - 2.2 Production Volume per year \_\_\_\_\_ Dry Tons per year \_\_\_\_\_
  - 2.3 Sludge to be disposed of is: Liquid \_\_\_\_\_ Dry Tons \_\_\_\_\_
  - 2.4 Sludge is: Aerobically digested \_\_\_\_\_, Anaerobically digested \_\_\_\_\_, Heat Anaerobically digested \_\_\_\_\_, Raw \_\_\_\_\_, Chemically Stabilized \_\_\_\_\_, Composted \_\_\_\_\_, Wastewater Lagoon \_\_\_\_\_, WTP Lime \_\_\_\_\_, WTP Alum \_\_\_\_\_, WTP Iron \_\_\_\_\_, Other \_\_\_\_\_, If other, describe \_\_\_\_\_ . Mixture \_\_\_\_\_, If mixture, describe \_\_\_\_\_
  - 2.5 Is the sludge defined as hazardous by State or Federal Law? YES \_\_\_\_\_ NO \_\_\_\_\_. If yes, basis. \_\_\_\_\_
  - 2.6 Is sludge to be stored on the STP site? YES \_\_\_\_\_ NO \_\_\_\_\_ If yes, type of storage, lagoon \_\_\_\_\_, storage tank \_\_\_\_\_, Other \_\_\_\_\_. If other, describe \_\_\_\_\_ capacity of storage, \_\_\_\_\_ cu. ft.
  - 2.7 Sludge Hauling
    - 2.7.1 Name(s), address(es) and Illinois Transporters I.D. Numbers \_\_\_\_\_
    - 2.7.2 For industrial generators, has Illinois Generator ID Number and Authorization Number been issued? YES \_\_\_\_\_ NO \_\_\_\_\_  
If no, contact the Division of Land Pollution Control.  
Illinois Generator ID Number \_\_\_\_\_  
Authorization Number \_\_\_\_\_
3. Methods of Sludge Disposal and/or Utilization
  - 3.1 Land Application
    - 3.1.1 Indicate the number of dry tons of sludge per year to be disposed by each of the following methods:  
Agricultural land \_\_\_\_\_, Commercial Fertilizer Production \_\_\_\_\_, Dedicated Land Disposal \_\_\_\_\_, Disturbed Land Reclamation \_\_\_\_\_, Silviculture \_\_\_\_\_, Horticultural Lands \_\_\_\_\_, Public Distribution \_\_\_\_\_, Other \_\_\_\_\_, If other, specify \_\_\_\_\_
    - 3.1.2 Sludge Disposal Site Location. Provide a map (USGS Quadrangle map or plat map) showing location.  
Name of USGS Quadrangle Map (7.5 or 15 minute) or plat map \_\_\_\_\_
    - 3.1.3 Provide soil survey map and soil description for disposal site. Identify name of soil survey and map sheet number for each soil survey map provided.

3.1.4 Is sludge to be stored at disposal site? YES NO . If yes, describe and state the storage volume \_\_\_\_\_ cubic feet.

3.1.5 Provide a copy of sludge user information sheet and completed, signed copies for any known users.

3.1.6 In a narrative description provide operating practices and design features to prevent ground and/or surface water pollution, potable water supply wellhead protection and other buffer distances, calculations supporting storage capacity, total acres available, soil characteristics, operational contingencies, etc.

3.1.7 Submit calculations of sludge application rate for agronomic rate, organic loading and metal loading rate.

3.2 Landfilling on-site off-site

3.2.1 Sanitary Landfill Special Waste Landfill Hazardous Waste Landfill Other

If other, specify \_\_\_\_\_

3.2.2 Name and Location of Landfill(s)

3.2.3 IEPA Permit Number(s) \_\_\_\_\_ ; \_\_\_\_\_ ;

3.3 Incineration

3.3.1 Name and Location \_\_\_\_\_

3.3.2 IEPA Permit Number(s) \_\_\_\_\_ ; \_\_\_\_\_ ;

3.3.3 Ultimate Disposal of Incinerator residue

#### 4. Sludge Characteristics

Submit complete analyses of sludge characteristics in mg/kg dry wt. basis unless otherwise indicated. The analyses shall be performed unless the sludge is disposed of by incineration or at an off-site landfill. Analyses performed shall include but not be limited to parameters below:

Parameter	Parameter
% TS	Sulfur
% VS	Aluminum (total)
COD mg/l	Arsenic (total)
pH	Barium (total)
BOD <sub>5</sub> mg/l	Cadmium (total)
Acidity meq of CaCO <sub>3</sub> at pH	Cobalt (total)
Alkalinity meq of CaCO <sub>3</sub> at pH	Chromium, hex (total)
Oil and Grease mg/l	Chromium (total)
Phenols mg/l	Copper (total)
Cyanide	Iron (total)
Sulfate (total) mg/l	Mercury (total)
Sulfide (total) mg/l	Manganese (total)
Sodium	Molybdenum (total)
EC mmhos/cm	Nickel (total)
TOC	Lead (total)

Ammonia mg/l  
Total Kjeldahl Nitrogen mg/l  
Phosphorus  
Potassium  
% Volatile Acids, if anaerobically digested

Selenium (total)  
Vanadium (total)  
Zinc (total)  
Radium 226 pCi/g  
Radium 228 pCi/g  
Other\*

\*Include results of any hazardous waste characteristics tests performed for: 1) EP Toxicity, 2) Corrosivity, 3) Ignitability, and 4) Reactivity.