



# Instructions for Completing Ohio EPA Form 2S

## NPDES Permit Application for Sewage Sludge Use or Disposal

### Overview

This application has been developed to meet the requirements of **Title 40 Code of Federal Regulations Part 503 (40 CFR 503) - Standards for the Use or Disposal of Sewage Sludge**. The application form collects information from persons that are required to apply for a sewage sludge use or disposal permit.

### Who Must Submit Application Information?

The following applicants are required to submit sewage sludge permit application information:

- Any person who generates sewage sludge that is ultimately regulated by Part 503 (i.e., it is applied to the land, placed on a surface disposal site, fired in a sewage sludge incinerator), or placed in a municipal solid waste landfill unit;
- Any person who derives material from, or otherwise changes the quality of, sewage sludge (e.g., an intermediate treatment facility such as a composting facility, or a facility that processes sewage sludge for sale or give away in a bag or other container for application to the land), if that sewage sludge is used or disposed in a manner subject to Part 503; and
- Any person who generates sewage sludge that is sent to another facility that provides treatment or blending.

For purposes of this form, "you" refers to the applicant. "This facility" and "your facility" refer to the facility for which application information is being submitted. Facility should be interpreted to include activities potentially subject to regulation under the sewage sludge program – e.g., areas of sewage sludge treatment, storage, land application, surface disposal, or incineration, even if such activities do not occur at the same location.

### Definitions

All significant terms used in these instructions and in the form are defined in the glossary found in the *General Instructions* which accompany Form 1.

### Which Parts of The Form Apply?

Form 2S is presented in a modular format, enabling information collection to be tailored to your facility's sewage sludge generation, treatment, use, or disposal practices. Your application will not be considered complete unless you answer all applicable questions on this form and on Form 1. If a particular question does not apply to your treatment works, write "N/A" (meaning "not applicable") as your answer to that question. The form is divided into seven sections:

- Section I is general information to be provided by all applicants.
- Section II must be completed by any facility that generates sewage sludge for shipment off-site for treatment or blending.
- Section III must be completed by any facility that applies sewage sludge to the land.
- Section IV must be completed by any facility that places sewage sludge on a surface disposal site.
- Section V must be completed by any facility that places sewage sludge in a sewage sludge incinerator.
- Section VI must be completed by any facility that disposes of sewage sludge at a municipal solid waste landfill.

Complete Sections II through VI that apply. In each section, answer every question that applies to you. If a particular question does not apply, write "N/A" as your answer to that question.

### Section I: General Information

#### A. Treatment System Description

**A.1.** List all treatment units used for collecting, dewatering, storing or treating sewage sludge. Treatment units should be listed in order by selecting the proper code from Table 2S-1. Use "other" if no treatment code corresponds to a treatment unit you list. Provide the manufacturer for each treatment unit if applicable. This question does not request information on sewage sludge treatment at an off-site use

or disposal facility.

**A.2.** Attach to this form a line drawing, simple flow diagram, or narrative description that identifies all sewage sludge processes employed at the facility.

**A.3.** Indicate whether the facility is a Class I sludge management facility. A Class I sludge management facility is either:

- Any POTW required to have an approved pretreatment program under 40 CFR 403.8(a), including any POTW located in a State assuming local pretreatment program responsibilities pursuant to 40 CFR 403.10(e); or
- Any treatment works treating domestic sewage, as defined in 40 CFR 122.2, classified as a Class I sludge management facility by the EPA Regional Administrator, or, in the case of approved State programs, the Regional Administrator in conjunction with the State Director, because of the potential for its sewage sludge use or disposal practices to adversely affect public health and the environment.

**A.4.** Provide the facility's sewage sludge treatment design capacity (in dry tons per year). Design capacity in this case refers to the quantity of sewage sludge the treatment works was designed to treat on a yearly basis. Dry tons per year is calculated by first multiplying gallons of sludge produced for the design year by 8.34 lb/gal and the dry weight percent solids and then dividing by 2000 lb/ton. Calculations on a dry weight basis are based on the sewage sludge having been dried at 105 degrees Celsius until reaching a constant weight (i.e., essentially 100 percent solids content).

**A.5.** Provide the date of construction or last major modification of the sewage sludge treatment systems at your facility. A major modification is any construction project that required the issuance of a Permit to Install (PTI) by Ohio EPA.

## **B. Amount Generated On Site**

**B.1.** Provide the total amount of sewage sludge (in dry tons) generated for the most recent year at your facility. Report only the amount of sewage sludge that is generated during treatment of domestic sewage in a treatment works and not the amount of material that is derived from sewage sludge.

**B.2.** If your facility receives any sewage sludge from off-site facilities for further treatment (including blending), use, or disposal, provide the total dry tons received for the most recent year. For purposes of this form, an off-site facility is a facility or site that is located on land physically separated from your facility. "Off-site" may include facilities or sites that you own if they are not located on the same property or on adjacent property.

**B.3.** If your facility receives any domestic septage from residential septic systems, provide the total gallons received for the most recent year. Domestic septage is defined as either liquid or solid material removed from a septic tank, cesspool, portable toilet, type three marine sanitation device or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives commercial or industrial wastewater and does not include grease removed from a grease trap at a restaurant.

## **C. Pollutant Concentrations**

Provide pollutant concentration data as follows:

- Submit the requested data from the most recent year for each of the pollutants listed in the appropriate section.
- Provide the average of three data points taken at least one month apart during the last two years. If existing data are not available for a pollutant, you must obtain and analyze at least one sample for that pollutant.
- In addition, if you have any available concentration data for pollutants not listed in the section you are completing, provide that data as well. If data for such additional pollutants are not available from the last two years, provide the most recent data.
- Express pollutant concentrations as dry weight concentrations.

The Part 503 sewage sludge use or disposal regulation requires the use of Test Method SW-846 (in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," Second and Third Editions) to analyze samples of sewage sludge for compliance with Part 503.

## **D. Sewage Sludge treatment and disposal characteristics**

Answer each question to determine which additional sections of the application apply to your facility. If you answer yes to any question you must complete the section listed in the parenthesis following the question. Complete all sections that apply to your facility.

## **Section II: Shipment Off Site for Treatment or Blending**

Complete this section if sewage sludge from your facility is hauled or conveyed to another facility for subsequent treatment or blending (i.e., it derives a material from sewage sludge). If you provide sewage sludge to more than one facility, complete Section II.B for each such facility. Attach additional pages as necessary.

**A.** Provide the total dry tons for the most recent year that is shipped off-site for treatment or blending.

**B. Information on off-site treatment or blending**

**B.1.** Provide the official or legal name of the facility receiving the sewage sludge. Do not use a colloquial name.

**B.2.** Provide the name, title, and work telephone number of the facility contact person. This should be an individual who is responsible for, or is familiar with, the operation of the facility receiving the sewage sludge.

**B.3.** Provide the physical location (street address) of the receiving facility. If the receiving facility lacks a street address or route number, provide the most accurate alternative geographic information (e.g., township and range, section or quarter section number, nearby highway intersection).

**B.4.** Provide the total amount (in dry tons) of your sewage sludge hauled to the receiving facility for the most recent year.

**Section III: Land Application of Bulk Sewage Sludge**

Complete this section if sewage sludge from your facility is land applied. Land application refers to sewage sludge that is sprayed or spread onto the land surface, injected below the land surface, or incorporated into the soil in order to condition the soil or fertilize crops or vegetation grown in the soil.

**A. Land Application General Information**

**A.1.** Provide the total amount (in dry tons) of sewage sludge that was land applied from your facility for the most recent year.

**A.2.** Provide total number of land application sites that are assigned an Ohio EPA site identification number. Ohio EPA's site identification number is the six-digit number used to identify a land application site.

**A.3.** Provide total acreage of land application sites that are assigned an Ohio EPA site identification number.

**A.4.** List all Ohio counties where you land apply sewage sludge.

**A.5.** If any land application sites are located in states other than Ohio, describe how you notify, or will notify, the respective permitting authorities.

**A.6.** Indicate if the sludge from your facility meets the ceiling concentrations in Table 1 of 40 CFR 503.13(b)(1) and the pollutant concentrations in Table 3 of 40 CFR

503.13(b)(3). If "yes", report the percentage of the total sludge produced from your facility that met this criteria over the previous year.

**A.7.** Indicate if the sludge from your facility meets the ceiling concentrations in Table 1 of 40 CFR 503.13(b)(1) but does not meet the pollutant concentrations in Table 3 of 40 CFR 503.13(b)(3). If "yes", report the percentage of the total sludge produced from your facility that met this criteria over the previous year.

**A.8.** Indicate the total percentage of sludge land applied for each class of pathogen reduction (Class A or Class B) that is achieved prior to land application. Options for meeting Class A pathogen reduction are listed at 40 CFR 503.32(a). Options for meeting Class B pathogen reduction are listed at 40 CFR 503.32(b).

**A.9.** Indicate the pathogen reduction alternative(s) achieved prior to land application. Options for meeting Class A pathogen reduction are listed at 40 CFR 503.32(a). Options for meeting Class B pathogen reduction are listed at 40 CFR 503.32(b).

**A.10.** Indicate the vector attraction reduction options achieved prior to or at the time of land application. Sewage sludge applied to agricultural land, a forest, a public contact site, or a reclamation site must meet one of the vector attraction reduction options 1-10, which are defined at 40 CFR 503.33(b) (1)-(10), respectively. Sewage sludge applied to a lawn or home garden, or placed in a bag or other container for sale or giveaway for application to the land, must meet any of options 1-8, defined at 40 CFR 503.33(b) (1)-(8), respectively. Options 1-8 are typically met at the point of sewage sludge generation, whereas Options 9, 10, and 11 are generally met at the point of use or disposal.

**A.11.** If you are a Class I sludge management facility, provide the Total Toxicity Equivalence (TTE) for all dioxin and dibenzofuran classes or 2, 3, 7, 8 dioxin/dibenzofuran congeners. Information on calculation of TTE may be obtained from the most recent edition of Ohio EPA "Land Application of Sludge Manual". If the results of your annual pretreatment report do not include this pollutant, you must obtain and analyze at least one sample for the pollutants.

**B. Spill Contingency Plan**

A spill contingency plan must be developed by all facilities that land apply sewage sludge.

**B.1.** Provide the date that your spill contingency plan was submitted to Ohio EPA.

**B.2.** If there have been any substantial modifications to the spill contingency plan, provide a copy of the modified plan to the appropriate district office.

## Section IV: Surface Disposal

Complete this section if sewage sludge from your facility is placed on a surface disposal site. A surface disposal site is an area of land that contains one or more active sewage sludge units. A sewage sludge unit is land on which only sewage sludge is placed for final disposal, excluding land on which sewage sludge is either stored or treated. If sewage sludge is placed on more than one surface disposal site, complete section IV.B for each such facility. Attach additional pages as necessary.

**A.** Provide the total amount (in dry tons) of your sewage sludge placed on surface disposal sites for the most recent year.

### ***B. Information on Active Sewage Sludge Units***

**B.1.** Provide the official or legal name of the facility receiving the sewage sludge. Do not use a colloquial name.

**B.2.** Provide the name, title, and work telephone number of the facility contact person. This should be an individual who is responsible for, or is familiar with, the operation of the facility receiving the sewage sludge.

**B.3.** Provide the physical location (street address) of the receiving facility. If the receiving facility lacks a street address or route number, provide the most accurate alternative geographic information (e.g., township and range, section or quarter section number, nearby highway intersection).

**B.4.** Provide the total amount (in dry tons) of your sewage sludge hauled to the receiving facility for the most recent year.

## Section V: Incineration

Complete this section if sewage sludge from your facility is fired in a sewage sludge incinerator. A sewage sludge incinerator is an enclosed device in which sewage sludge and auxiliary fuel are fired. If sewage sludge is fired in more than one facility, complete section V.B for each such facility. Attach additional pages as necessary.

**A.** Provide the total amount (in dry tons) of your sewage sludge fired in a sewage sludge incinerator for the most recent year.

### ***B. Information on Sewage Sludge Incinerators***

**B.1.** Provide the official or legal name of the facility receiving the sewage sludge. Do not use a colloquial name.

**B.2.** Provide the name, title, and work telephone number of the facility contact person. This should be an individual who is responsible for, or is familiar with, the operation of the

facility receiving the sewage sludge.

**B.3.** Provide the physical location (street address) of the receiving facility. If the receiving facility lacks a street address or route number, provide the most accurate alternative geographic information (e.g., township and range, section or quarter section number, nearby highway intersection).

**B.4.** Provide the total amount (in dry tons) of your sewage sludge hauled to the receiving facility for the most recent year.

## Section VI: Disposal at a Municipal Solid Waste Landfill

Complete this section if sewage sludge from your facility is placed on a municipal solid waste landfill (MSWLF) unit. A MSWLF unit is a discrete area of land or an excavation that receives household waste, and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined under 40 CFR 257.2. A MSWLF unit also may receive other types of RCRA subtitle D wastes, such as commercial solid waste, nonhazardous sludge, small quantity generator waste and industrial solid waste. Such a landfill may be publicly or privately owned. If sewage sludge from your facility is placed on more than one MSWLF, complete Section VI.B for each such facility. Attach additional pages as necessary.

**A.** Provide the total amount (in dry tons) of your sewage sludge placed on all MSWLF for the most recent year.

### ***B. Information on Municipal Solid Waste Landfill***

**B.1.** Provide the official or legal name of the facility receiving the sewage sludge. Do not use a colloquial name.

**B.2.** Provide the name, title, and work telephone number of the facility contact person. This should be an individual who is responsible for, or is familiar with, the operation of the facility receiving the sewage sludge.

**B.3.** Provide the physical location (street address) of the receiving facility. If the receiving facility lacks a street address or route number, provide the most accurate alternative geographic information (e.g., township and range, section or quarter section number, nearby highway intersection).

**B.4.** Provide the total amount (in dry tons) of your sewage sludge hauled to the receiving facility for the most recent year.

## Section VII: Certification

All permit applications must be signed and certified in accordance with 40 CFR 122.22 and Ohio Administrative Code, Chapter 3745-33-03. An application submitted by a municipality, State, Federal, or other public agency must be signed by either a principal executive officer or ranking elected official. A principal executive officer of a Federal agency includes: (1) the chief executive officer of the agency; or (2) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA). An application submitted by a corporation must be signed by a responsible corporate officer. A responsible corporate officer means: (1) a president, secretary, treasurer, or vice president in charge of a principal business function, or any other person who performs similar policy- or decision-making functions; or (2) the manager of 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. An application submitted by a partnership or sole proprietorship must be signed by a general partner or the proprietor, respectively.

**Table 2S-1  
Sludge Handling Codes**

Sludge Treatment Unit		
	Aerobic Digestion - Air	92
	Aerobic Digestion - Oxygen	93
	Anaerobic Digestion	94
	Composting	95
	Heat Treatment	96
	Air Drying	A1
	Sludge Lagoons	A2
	Mechanical Dewatering - Vacuum Filter	A3
	Mechanical Dewatering - Centrifuge	A4
	Mechanical Dewatering - Filter Press	A5
	Gravity Thickening	A6
	Air Flotation Thickening	A8
	Polymer, Lime, Ferric-Chloride, Alum Addition	B1
	Digester Gas Utilization Facilities	B9
	Heat Recovery and Utilization	C1
	Chlorinate Oxidation (Purifax)	97
	Lime Stabilization	98
	Wet Air Oxidation	99
	Elutriation	A7
	Other Dewatering	A9
	Other Sludge Treatment	C2
	Incineration - Multiple Hearth	B2
	Incineration - Fluidized Bed	B3
	Incineration - Rotary Kiln	B4
	Pyrolysis	B5
	Co-Incineration with Solid Waste	B6
	Co-Pyrolysis with Solid Waste	B7
	Land Spreading	C4
	Landfill	C3
	Distribution and/or Marketing of Sludge	C6

<b>Pollutant</b>	<b>503.13 Table 1 Ceiling Concentration Limits for Land Application (mg/kg)</b>	<b>503.13 Table 2 Cumulative Pollutant Limits for Land Application (kg/ha)</b>	<b>503.13 Table 3 Pollutant Concentration Limits for Land Application (mg/kg)</b>
Arsenic	75	41	41
Cadmium	85	39	39
Copper	4,300	1,500	1,500
Lead	840	300	300
Mercury	57	17	17
Molybdenum	75	-	-
Nickel	420	420	420
Selenium	100	100	36
Zinc	7,500	2,800	2,800