



Gallatin Public Utilities

Water ♦ Sewer ♦ Natural Gas

January 30, 2018

USEPA - Region 7
WWPD/WENF
11201 Renner Boulevard
Lenexa, KS 66219

RE: City of Gallatin WWTP
NPDES Permit #TN0020141
Annual Sludge Report – 2017

TN DEPT. OF ENV. & CONSERVATION
FEB 05 2018
DIVISION OF WATER RESOURCES

To Whom It May Concern:

In accordance with the requirements of **40 CFR 503**, the City of Gallatin Wastewater Treatment submits the following report for the generation, treatment and disposal of sewage sludge at this facility. We are generating Class A Biosolids by the addition of an alkali material (lime kiln dust) to raise the pH above 12 for 72 hours, raising the Biosolids temperature above 52 degrees Celsius for 12 hours and increasing solids above 50 percent. The treatment plant samples on Bi-monthly schedule. Liquid sludge prior to Biosolids and Lime Stabilized Biosolids are analyzed on alternate Bi-monthly schedules. This report includes the following information:

- 1. Pollutant Concentrations:** In accordance with **§ 503.17(a)(4)(i)(A)**, enclosed is a copy of the analysis reports from the sampling of the Class A lime stabilized sewage sludge for the parameters listed in **Table 3 of § 503.13**. Results from these samples, collected in January, March, May, July, September and November 2017 indicate that all parameters were below the monthly average concentrations listed in **Table 3 of § 503.13**. In addition, the parameter of Molybdenum was found to be below the ceiling concentration listed in **Table 1 of § 503.13**. Also enclosed are copies of the analysis reports from the sampling of the Digested sludge prior to dewatering for the parameters listed in **Table 3 of § 503.13**. Results from these samples, collected February, April, June, August, October and November 2017 indicate all parameters were below the monthly average concentrations listed in **Table 3 of § 503.13**. In addition, the parameter of Molybdenum was found to be below the ceiling concentration listed in **Table 1 of § 503.13**.
- 2. Certification Statement:** The certification statement required in **§503.17(a)(4)(i)(B)** is enclosed.

3. **Pathogen Reduction Requirements**: The **Class A** pathogen reduction requirements in § 503.32(a) - **Alternative 2** were met by the collection and analysis of bi-monthly sewage sludge samples for fecal coliform. The results the analyses are as follows:

February, 2017	<3 col/g
March, 2017	<3.12 col/g
May, 2017	<3 col/g
July, 2017	<3 col/g
October, 2017	<3 col/g
December, 2017	<3 col/g

4. **Vector Attraction Reduction Requirements**: The vector attraction reduction requirements in § 503.33(b)(6) was met for all Class A sludge given away in 2017. Average detention time in the aerobic digesters is approximately **40** days. Please find attached copies of bench sheets solids concentration and pH analysis calculations conducted at the Gallatin WWTP on Class A sludge given away in 2017.

5. **Sludge Production and Disposal**: A total of **2499.20** dry metric tons of sewage sludge was disposed of for the reporting year of **2017**. A total of **2234.48** dry tons of the Class A lime stabilized sewage sludge generated and given away to the public. The City of Gallatin has a contract with **Ohio County Balefill** to transport and dispose of excess dewatered sewage sludge generated at the Gallatin Wastewater Treatment Plant. An additional **264.72** dry tons of the sewage sludge generated was dewatered and delivered to Ohio County Balefill in 2017 for disposal.

Please do not hesitate to contact me if you have any questions or comments concerning this report.

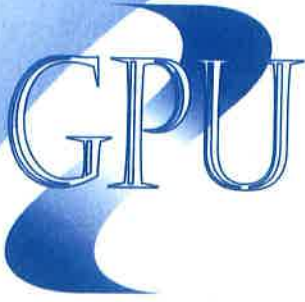
Sincerely,



Brandon Traughber
Chief Wastewater Treatment Plant Operator
City of Gallatin

Enclosures

cc: David A. Gregory, Supt. of Public Utilities
David T. Kellogg, Assist. Supt. of Public Utilities
TDEC-Division of Water Pollution Control
TDEC-Nashville EAC



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"I certify, under penalty of law, that the Class A pathogen requirements in § 503.32(a) and the vector attraction reduction requirements in § 503.33(b)(6) have been met. This determination has been made under my direction and supervision, in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that requirements have been met. I am aware that there are significant penalties for false certification, including the possibility of fine and imprisonment."

A handwritten signature in black ink, which appears to read 'David A. Gregory', is written over a horizontal line.

David A. Gregory
Superintendent of Public Utilities
Gallatin Public Utilities



Sewage Sludge (Biosolids) Annual Report

EPA Regulations – 503.18, 503.28, 503.48

INSTRUCTIONS

EPA's sewage sludge regulations ([40 CFR part 503](#)) require certain POTWs and Class I sewage sludge management facilities to submit to an annual biosolids report. POTWs that must submit an annual report include POTWs with a design flow rate equal to or greater than one million gallons per day and POTWs that serve 10,000 people or more. This is the biosolids annual report form for POTWs and Class I sewage sludge management facilities in the 42 states and all tribes and territories where EPA administers the Federal biosolids program.

For the purposes of this form, the term 'sewage sludge' also refers to the material that is commonly referred to as 'biosolids.' EPA does not have a regulatory definition for biosolids but this material is commonly referred to as sewage sludge that is placed on, or applied to the land to use the beneficial properties of the material as a soil amendment, conditioner, or fertilizer. EPA's use of the term 'biosolids' in this form is to confirm that information about beneficially used sewage sludge (a.k.a. biosolids) should be reported on this form.

Please note that questions with a (*) are required. Please also note that EPA may contact you after you submit this report for more information regarding your sewage sludge program.

Questions regarding this form should be directed to the NPDES Electronic Reporting Helpdesk at:

- NPDESReporting@epa.gov OR
- 1-877-227-8965

What action would you like to take? *

New Biosolids Program Report

1. Program Information

Please select the NPDES ID number below for this Sewage Sludge (Biosolids) Annual Report. *

TNL020141: GALLATIN STP

IMPORTANT - If you do not see the NPDES ID associated with your facility (i.e., you only see a blue bar in the above drop down list), you MUST follow the instructions in the "Biosolids User's Guide." A shorter set of instructions to fix this issue are in the "Important Instructions on Accessing Your NPDES ID" document. Both documents are located at: <https://epanel.zendesk.com/hc/en-us/sections/207108787-General-Biosolids>.

Facility Name: GALLATIN STP

Street: LOCK FOUR ROAD

City: GALLATIN

State: TN

Zip Code: 37066

- 1.1 Please select at least one of the following options pertaining to your obligation to submit a Sewage Sludge (Biosolids) Annual Report in compliance with [40 CFR 503](#). The facility is: *
- a POTW with a design flow rate equal to or greater than one million gallons per day a POTW that serves 10,000 people or more a Class I Sludge Management Facility as defined in [40 CFR 503.9](#)
- otherwise required to report (e.g., permit condition, enforcement action) none of the above

1.2. Reporting Period Start and End Dates

Start Date of Reporting Period *	End Date of Reporting Period *
01-01 -2017	12-31 -2017

2. Facility Information

2.1 Biosolids or Sewage Sludge Treatment Processes

Please check the box next to the following biosolids or sewage sludge treatment processes that you used on the sewage sludge or biosolids generated or produced at your facility during the reporting period (check one or more that apply). *

Pathogen Reduction Operations (see Appendix B to Part 503)

Processes to Significantly Reduce Pathogens (PSRP)

- Aerobic Digestion
 - Air Drying (or "sludge drying beds")
 - Anaerobic Digestion
 - Lower Temperature Composting
 - Lime Stabilization
- Processes to Further Reduce Pathogens (PFRP)
- Higher Temperature Composting
 - Heat Drying (e.g., flash dryer, spray dryer, rotary dryer)
 - Heat Treatment (liquid sewage sludge is heated to temp. of 356°F (or 180°C) or higher for 30 min.)
 - Thermophilic Aerobic Digestion
 - Beta Ray Irradiation
 - Gamma Ray Irradiation
 - Pasteurization

Physical Treatment Operations

- Preliminary Operations (e.g., sludge grinding, degritting, blending)
- Thickening (e.g., gravity and/or flotation thickening, centrifugation, belt filter press, vacuum filter)
- Sludge Lagoon

Other Processes to Manage Sewage Sludge

- Temporary Sludge Storage (sewage sludge stored on land 2 years or less, not in sewage sludge unit)
- Long-term Sludge Storage (sewage sludge stored on land 2 years or more, not in sewage sludge unit)
- Methane or Biogas Capture and Recovery
- Other Treatment Process:

2.2 Biosolids or Sewage Sludge Analytical Methods

EPA regulations specify that representative samples of sewage sludge that is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator must be collected and analyzed. These regulations also specify the analytical methods that must be used to analyze samples of sewage sludge. For example, EPA requires facilities to monitor for the certain parameters, which are listed in Tables 1, 2, 3, and 4 at [40 CFR 503.13](#) and Tables 1 and 2 [40 CFR 503.23](#). See also [40 CFR 503.8](#).

Please check the box next to the following analytic methods used on the sewage sludge or biosolids generated or produced by you or your facility during the reporting period (check one or more that apply). *

Parameter	Method Number or Author
Pathogens	
Ascaris ova.	<input type="checkbox"/> Sludge Monitoring - Ascaris ova.
	<input type="checkbox"/> Other Ascaris ova. Analytical Method:

Description Text for Certification Section

Sludge Monitoring - Ascaris ova., "Test Method for Detecting, Enumerating, and Determining the Viability Ascaris in Sludge (Appendix I)," Control of Pathogens and Vector Attraction in Sewage Sludge", EPA-625-R-92-013, July 2003

Parameter	Method Number or Author	Description Text for Certification Section
Enteric viruses	<input type="checkbox"/> ASTM Method D4994 - Enteric Viruses	ASTM Method D4994 - Enteric Viruses; "Standard Practice for Recovery of Viruses From Wastewater Sludges." ASTM International
	<input type="checkbox"/> Other Enteric Viruses Analytical Method:	
Fecal coliform	<input type="checkbox"/> Standard Method 9222 - Fecal Coliform	Standard Method 9222 - Fecal Coliform, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association [Note: This method is only allowable for Class B sewage sludge]
	<input checked="" type="checkbox"/> Standard Method 9221 - Fecal Coliform	Standard Method 9221 - Fecal Coliform, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	<input type="checkbox"/> EPA Method 1680 - Fecal Coliform	EPA Method 1680 - Fecal Coliform, "Fecal Coliforms in Sewage Sludge by Multiple-Tube Fermentation using Lauryl Tryptose Broth and EC Medium," EPA-821-R-10-003, April 2010
	<input type="checkbox"/> EPA Method 1681 - Fecal Coliform	EPA Method 1681 - Fecal Coliform, "Fecal Coliforms in Sewage Sludge (Biosolids) by Multiple-Tube Fermentation using A-1 medium," EPA-821-R-04-027, June 2005
	<input type="checkbox"/> Other Fecal Coliform Analytical Method:	
Helminth ova.	<input type="checkbox"/> W.A. Yanko Method - Helminth ova.	W.A. Yanko Method - Helminth Ova., "Occurrence of Pathogens in Distribution and Marketing Municipal Sludges," EPA-600-1-87-014, 1987
	<input type="checkbox"/> Other Helminth ova Analytical Method:	
Salmonella sp. Bacteria	<input type="checkbox"/> Standard Method 9260 - Salmonella	Standard Method 9260 - Salmonella, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	<input type="checkbox"/> EPA Method 1682 - Salmonella	EPA Method 1682, "Salmonella in Sewage Sludge (Biosolids) by Modified Semisolid Rappaport-Vassiliadis (MSRV) Medium," EPA-821-R-06-014, July 2006
	<input type="checkbox"/> Kenner and Clark Method - Salmonella	Kenner and Clark Method - Salmonella, "Detection and Enumeration of Salmonella and Pseudomonas aeruginosa," J. Water Pollution Control Federation, 46(9):2163-2171, 1974
	<input type="checkbox"/> Other Salmonella sp. Bacteria Analytical Method:	
Total Culturable Viruses	<input type="checkbox"/> Class A Sludge Monitoring - Total Culturable Viruses	EPA Class A Sludge Monitoring - Total Culturable Viruses, "Method for the Recovery and Assay of Total Culturable Viruses from Sludge (Appendix H)," Control of Pathogens and Vector Attraction in Sewage Sludge, EPA-625-R-92-013, July 2003
	<input type="checkbox"/> Other Total Culturable Viruses Analytical Method:	
Metals	<input checked="" type="checkbox"/> EPA Method 6010 - Arsenic (ICP-OES)	EPA Method 6010 - Arsenic (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 6020 - Arsenic (ICP-MS)	EPA Method 6020 - Arsenic (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7010 - Arsenic (GF-AAS)	EPA Method 7010 - Arsenic (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7061 - Arsenic (AA-GH)	EPA Method 7061 - Arsenic (Atomic Absorption - Gaseous Hydride), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> Other Arsenic Analytical Method:	
	<input checked="" type="checkbox"/> EPA Method 6010 - Beryllium (ICP-OES)	EPA Method 6010 - Beryllium (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 6020 - Beryllium (ICP-MS)	EPA Method 6020 - Beryllium (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7000 - Beryllium (FAAS)	EPA Method 7000 - Beryllium (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7010 - Beryllium (GF-AAS)	EPA Method 7010 - Beryllium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> Other Beryllium Analytical Method	

Parameter	Method Number or Author	Description Text for Certification Section
Cadmium	<input checked="" type="checkbox"/> EPA Method 6010 - Cadmium (ICP-OES)	EPA Method 6010 - Cadmium (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 6020 - Cadmium (ICP-MS)	EPA Method 6020 - Cadmium (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7000 - Cadmium (FAAS)	EPA Method 7000 - Cadmium (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7010 - Cadmium (GF-AAS)	EPA Method 7010 - Cadmium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7131 - Cadmium (GF-AAS)	EPA Method 7131 - Cadmium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> Other Cadmium Analytical Method:	
	<input checked="" type="checkbox"/> EPA Method 6010 - Chromium (ICP-OES)	EPA Method 6010 - Chromium (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Chromium	<input type="checkbox"/> EPA Method 6020 - Chromium (ICP-MS)	EPA Method 6020 - Chromium (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7000 - Chromium (FAAS)	EPA Method 7000 - Chromium (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7010 - Chromium (GF-AAS)	EPA Method 7010 - Chromium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7191 - Chromium (AA-FT)	EPA Method 7191 - Chromium (Atomic Absorption - Furnace Technique), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> Other Chromium Analytical Method:	
	<input checked="" type="checkbox"/> EPA Method 6010 - Copper (ICP-OES)	EPA Method 6010 - Copper (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 6020 - Copper (ICP-MS)	EPA Method 6020 - Copper (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Copper	<input type="checkbox"/> EPA Method 7000 - Copper (FAAS)	EPA Method 7000 - Copper (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7010 - Copper (GF-AAS)	EPA Method 7010 - Copper (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> Other Copper Analytical Method:	
	<input checked="" type="checkbox"/> EPA Method 6010 - Lead (ICP-OES)	EPA Method 6010 - Lead (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 6020 - Lead (ICP-MS)	EPA Method 6020 - Lead (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Lead	<input type="checkbox"/> EPA Method 7000 - Lead (FAAS)	EPA Method 7000 - Lead (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7010 - Lead (GF-AAS)	EPA Method 7010 - Lead (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7421 - Lead (AA-FT)	EPA Method 7421 - Lead (Atomic Absorption - Furnace Technique), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> Other Lead Analytical Method:	
	<input checked="" type="checkbox"/> EPA Method 7471 - Mercury (CVAA)	EPA Method 7471 - Mercury in Solid or Semi-Solid Waste (Cold Vapor Atomic Absorption), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Mercury	<input type="checkbox"/> Other Mercury Analytical Method:	

Parameter	Method Number or Author	Description Text for Certification Section
Molybdenum	<input checked="" type="checkbox"/> EPA Method 6010 - Molybdenum (ICP-OES)	EPA Method 6010 - Molybdenum (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 6020 - Molybdenum (ICP-MS)	EPA Method 6020 - Molybdenum (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7000 - Molybdenum (FAAS)	EPA Method 7000 - Molybdenum (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7010 - Molybdenum (GF-AAS)	EPA Method 7010 - Molybdenum (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7481 - Molybdenum (AA-FI)	EPA Method 7481 - Molybdenum (Atomic Absorption - Furnace Technique), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> Other Molybdenum Analytical Method:	
	<input checked="" type="checkbox"/> EPA Method 6010 - Nickel (ICP-OES)	EPA Method 6010 - Nickel (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 6020 - Nickel (ICP-MS)	EPA Method 6020 - Nickel (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7000 - Nickel (FAAS)	EPA Method 7000 - Nickel (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7010 - Nickel (GF-AAS)	EPA Method 7010 - Nickel (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Nickel	<input type="checkbox"/> EPA Method 7010 - Nickel (GF-AAS)	EPA Method 7010 - Nickel (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7010 - Nickel (GF-AAS)	EPA Method 7010 - Nickel (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> Other Nickel Analytical Method:	
	<input checked="" type="checkbox"/> EPA Method 6010 - Selenium (ICP-OES)	EPA Method 6010 - Selenium (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 6020 - Selenium (ICP-MS)	EPA Method 6020 - Selenium (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7010 - Selenium (GF-AAS)	EPA Method 7010 - Selenium (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Selenium	<input type="checkbox"/> EPA Method 7740 - Selenium (AA-FI)	EPA Method 7740 - Selenium (Atomic Absorption - Furnace Technique), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7741 - Selenium (AA-GH)	EPA Method 7741 - Selenium (Atomic Absorption - Gaseous Hydride), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> Other Selenium Analytical Method:	
	<input checked="" type="checkbox"/> EPA Method 6010 - Zinc (ICP-OES)	EPA Method 6010 - Zinc (Inductively Coupled Plasma - Optical Emission Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Zinc	<input type="checkbox"/> EPA Method 6020 - Zinc (ICP-MS)	EPA Method 6020 - Zinc (Inductively Coupled Plasma - Mass Spectrometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7000 - Zinc (FAAS)	EPA Method 7000 - Zinc (Flame Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 7010 - Zinc (GF-AAS)	EPA Method 7010 - Zinc (Graphite Furnace Atomic Absorption Spectrophotometry), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> Other Zinc Analytical Method:	
	<input checked="" type="checkbox"/> EPA Method 350.1 - Ammonia Nitrogen	EPA Method 350.1 - Ammonia Nitrogen, "Determination of Ammonia Nitrogen by Semi-Automated Colorimetry," August 1993 Standard Method 4500-NH3 - Ammonia Nitrogen, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
Ammonia Nitrogen	<input type="checkbox"/> Standard Method 4500-NH3 - Ammonia Nitrogen	
	<input type="checkbox"/> Other Ammonia Nitrogen Analytical Method	
	<input checked="" type="checkbox"/> EPA Method 9056 - Nitrate Nitrogen (IC)	EPA Method 9056 - Nitrate Nitrogen (Ion Chromatography), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Nitrate Nitrogen	<input type="checkbox"/> EPA Method 9210 - Nitrate Nitrogen (SE)	EPA Method 9210 - Nitrate Nitrogen (Ion-Selective Electrode), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> Other Nitrate Nitrogen Analytical Method:	
	<input checked="" type="checkbox"/> EPA Method 350.1 - Ammonia Nitrogen	EPA Method 350.1 - Ammonia Nitrogen, "Determination of Ammonia Nitrogen by Semi-Automated Colorimetry," August 1993 Standard Method 4500-NH3 - Ammonia Nitrogen, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association

Parameter	Method Number or Author	Description Text for Certification Section
Nitrogen	<input checked="" type="checkbox"/> Standard Method 4500-N - Nitrogen	Standard Method 4500-N - Nitrogen, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	<input type="checkbox"/> Other Nitrogen Analytical Method:	
Organic Nitrogen	<input checked="" type="checkbox"/> Standard Method 4500-Norg - Organic Nitrogen	Standard Method 4500-Norg - Organic Nitrogen, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	<input type="checkbox"/> Other Organic Nitrogen Analytical Method:	
Total Kjeldahl Nitrogen	<input type="checkbox"/> EPA Method 351.2 - Total Kjeldahl Nitrogen	EPA Method 351.2 - Total Kjeldahl Nitrogen, "Determination of Total Kjeldahl Nitrogen by Semi-Automated Colorimetry," August 1993
	<input type="checkbox"/> Other Total Kjeldahl Nitrogen Analytical Method:	
Other Analytes		
Fixed Solids	<input checked="" type="checkbox"/> Standard Method 2540 - Fixed Solids	Standard Method 2540 - Total, fixed, and volatile solids, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	<input type="checkbox"/> Other Fixed Solids Analytical Method:	
Paint Filter Test	<input checked="" type="checkbox"/> EPA Method 9095 - Paint Filter Liquids Test	EPA Method 9095 - Paint Filter Liquids Test, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> Other Paint Filter Test Analytical Method:	
pH	<input type="checkbox"/> EPA Method 9040 - pH (\leq 7% solids)	EPA Method 9040 - pH (\leq 7% solids), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	<input type="checkbox"/> EPA Method 9045 - pH ($>$ 7% solids)	EPA Method 9045 - pH ($>$ 7% solids), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Specific Oxygen Uptake Rate	<input type="checkbox"/> Other pH Analytical Method:	
	<input type="checkbox"/> Standard Method 2710 - SOUR	Standard Method 2710 - Specific Oxygen Uptake Rate, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
TCLP	<input type="checkbox"/> Other Specific Oxygen Uptake Rate Analytical Method:	
	<input checked="" type="checkbox"/> EPA Method 1311 - Toxicity Characteristic Leaching Procedure	EPA Method 1311 - Toxicity Characteristic Leaching Procedure, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
Temperature	<input type="checkbox"/> Other TCLP Analytical Method:	
	<input checked="" type="checkbox"/> Standard Method 2550 - Temperature	Standard Method 2550 - Temperature, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
Total Solids	<input type="checkbox"/> Other Temperature Analytical Method:	
	<input checked="" type="checkbox"/> Standard Method 2540 - Total Solids	Standard Method 2540 - Total, fixed, and volatile solids, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
Volatile Solids	<input type="checkbox"/> Other Total Solids Analytical Method:	
	<input type="checkbox"/> Standard Method 2540 - Volatile Solids	Standard Method 2540 - Total, fixed, and volatile solids, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
No Analytical Methods	<input type="checkbox"/> Other Volatile Solids Analytical Method:	
	<input type="checkbox"/> No Analytical Methods Used	

2.3 What is the estimated total volume of biosolids or sewage sludge produced at your facility for the reporting period (in dry metric tons)? *

2499.2

3. Biosolids or Sewage Sludge Management

EPA NPDES regulations at 40 CFR 503 only require reporting for land application, surface disposal, or incineration. You have the option to select "Other Management Practice" if you wish to provide more information on how you manage your sewage sludge or biosolids.

Please use the selections below to identify how sewage sludge or biosolids generated or produced at your facility was managed, used, or disposed by you or your facility for the reporting period. You can use the button below to add as many Sewage Sludge Unique Identifier (SSUID) sections as needed to describe how you manage your sewage sludge.

SSUID Section

Sewage Sludge Unique Identifier (SSUID): 001

Management Practice Type *	Handler, Preparer, or Applier Type *	Management Practice Detail *
Land Application	On-Site Owner or Operator	Advanced Alkaline Stabilized Biosolids Distribution & Marketing

Please Note: Land Application includes the distribution and marketing (sale or give away) of Class A EQ. "Off-Site Third-Party Handler or Applier" refers to third parties which do not change the quality of the Biosolids. "Off-Site Third-Party Preparer" refers to a third party which changes the quality of the Biosolids.

Bulk or Bag/Container * Pathogen Class * Volume Amount (dry metric tons) *

Pollutant Concentrations:

Did the facility/land apply bulk sewage sludge when one or more pollutant concentrations in the sewage sludge exceeded a monthly average pollutant concentration in Table 3 of 40 CFR 503.13? *

- Yes No

Biosolids or Sewage Sludge Pathogen Reduction Options

Please use the selections below to identify the pathogen reduction options used by your facility for this sewage sludge unique identifier for the reporting period (check one or more that apply). *

- | | |
|--|--|
| Code | Pathogen Reduction Option |
| <input type="checkbox"/> A1 | Class A-Alternative 1: Time/Temperature |
| <input checked="" type="checkbox"/> A2 | Class A-Alternative 2: pH/Temperature/Percent Solids |
| <input type="checkbox"/> A3 | Class A-Alternative 3: Test Enteric Viruses and Helminth ova; Operating Parameters |
| <input type="checkbox"/> A4 | Class A-Alternative 4: Test Enteric Viruses and Helminth ova; No New Solids |
| <input type="checkbox"/> A51 | Class A-Alternative 5 PFRP 1: Composting |
| <input type="checkbox"/> A52 | Class A-Alternative 5 PFRP 2: Heat Drying |
| <input type="checkbox"/> A53 | Class A-Alternative 5 PFRP 3: Liquid Heat Treatment |
| <input type="checkbox"/> A54 | Class A-Alternative 5 PFRP 4: Thermophilic Aerobic Digestion (ATAD) |
| <input type="checkbox"/> A55 | Class A-Alternative 5 PEPR 5: Beta Ray Irradiation |
| <input type="checkbox"/> A56 | Class A-Alternative 5 PEPR 6: Gamma Ray Irradiation |
| <input type="checkbox"/> A57 | Class A-Alternative 5 PFRP 7: Pasteurization |
| <input type="checkbox"/> A6 | Class A-Alternative 6: PFRP Equivalency |
| <input type="checkbox"/> pH | pH Adjustment (Domestic Septage) |

Biosolids or Sewage Sludge Vector Attraction Reduction Options

Please use the selections below to identify the vector attraction reduction options used by your facility or another person/facility for this sewage sludge unique identifier for the reporting period (check one or more that apply). *

Vector Attraction Reduction Options

- VR1 Option 1-Volatile Solids Reduction
- VR2 Option 2-Bench-Scale Volatile Solids Reduction (Anaerobic Bench Test)
- VR3 Option 3-Bench-Scale Volatile Solids Reduction (Aerobic Bench Test with Percent Solids of Two Percent or Less)
- VR4 Option 4-Specific Oxygen Uptake Rate
- VR5 Option 5-Aerobic Processing (Thermophilic Aerobic Digestion/Composting)
- VR6 Option 6-Alkaline Treatment
- VR7 Option 7-Drying (Equal to or Greater than 75 Percent)
- VR8 Option 8-Drying (Equal to or Greater than 90 Percent)

Noncompliance Reporting

Please use the check boxes below to indicate any noncompliance with EPA's Federal sewage sludge program requirements (see [40 CFR 503](#)) for this facility during the reporting period. EPA notes that any person who prepares sewage sludge (i.e., person who generates sewage sludge or a person who derives a material from sewage sludge) shall ensure that the applicable requirements in EPA's biosolids regulations ([40 CFR 503](#)) are met when the sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator (see [40 CFR 503.7](#)).

Land Application

- Facility land applied bulk sewage sludge or sold or gave away sewage sludge in a bag or other container when one or more pollutant concentrations in the sewage sludge exceeded a land application ceiling pollutant limit (see Table 1 of [40 CFR 503.13](#)).
- Facility failed to properly collect and analyze its sewage sludge in accordance with the required monitoring frequency and approved analytical methods in order to obtain an accurate and representative sample (including appropriate method holding times) (see permit requirements and [40 CFR 503.8](#)).
- Facility had deficiencies with pathogen reduction (see [40 CFR 503.32](#)).
- Facility had deficiencies with vector attraction reduction (see [40 CFR 503.33](#)).
- Land application of bulk sewage sludge likely to adversely affected a threatened or endangered species listed under Section 4 of the Endangered Species Act or its designated critical habitat (see [40 CFR 503.14\(a\)](#)).
- Bulk sewage sludge was applied to agricultural land, forest, a public contact site, or a reclamation site that was flooded, frozen, or snow-covered such that the bulk sewage sludge entered a wetland or other waters of the United States, as defined in [40 CFR 122.2](#), except as provided in a permit issued pursuant to Section 402 or 404 of the CWA (see [40 CFR 503.14\(b\)](#)).
- Bulk sewage sludge was applied to agricultural land, forest, or a reclamation site was 10 meters or less from waters of the United States, as defined in [40 CFR 122.2](#), unless otherwise specified by the permitting authority (see [40 CFR 503.14\(c\)](#)).
- Bulk sewage sludge was applied to agricultural land, forest, a public contact site, or a reclamation site at a whole sludge application rate that was greater than the agronomic rate for the bulk sewage sludge, unless, in the case of a reclamation site, otherwise specified by the permitting authority (see [40 CFR 503.14\(d\)](#)).
- One or more label or information sheet requirements were not met for sewage sludge that was sold or given away for land application (see [40 CFR 503.14\(e\)](#)).
- Bulk sewage sludge was applied to land where the cumulative pollutant loading rates in [§503.13\(b\)\(2\)](#) have been reached.
- The required notice and information was not provided to the land application applicator (see [40 CFR 503.12\(f\)](#) and [\(g\)](#)).

- The required notice and information was not provided to the owner or lease holder of the land on which bulk sewage sludge was applied (see [40 CFR 503.12\(h\)](#)).
- The required notice was not provided to the permitting authority for the State in which bulk sewage sludge was applied if the bulk sewage sludge was applied to land in a State other than the State in which the bulk sewage sludge was prepared (see [40 CFR 503.12\(i\)](#) and [\(j\)](#)).
- The facility failed to keep the necessary records for preparers and applicators during the reporting period (see [40 CFR 503.27](#)).

**Please select this checkbox to continue completing the form.
If you wish to change the SSUID section(s) above, uncheck this box.***

Biosolids Monitoring Data

INSTRUCTIONS: These monitoring data should be representative of the sewage sludge that was applied to land or placed on a surface disposal site during the reporting year see [40 CFR 503.8\(a\)](#). This section uses the frequency of monitoring requirements in [40 CFR 503.16](#) and [503.26](#). The following codes can be used as data qualifiers: T = Too Numerous to Count, E = Estimated, N = No Data.

Land Application Monthly Sample Table

Sample	Sample Period Start Date	Sample Period End Date
Sample 1 Time Period	01-01-2017	02-28-2017
Sample 2 Time Period	03-01-2017	04-30-2017
Sample 3 Time Period	05-01-2017	06-30-2017
Sample 4 Time Period	07-01-2017	08-31-2017
Sample 5 Time Period	09-01-2017	10-31-2017
Sample 6 Time Period	11-01-2017	12-31-2017

Maximum Pollutant Concentration Data for All Sewage Sludge Applied to Land *

This section summarizes the maximum pollutant concentrations in sewage sludge that was applied to land during the reporting year. In accordance with [40 CFR 503.13\(a\)](#), EPA's sewage sludge regulations prohibit land application of bulk sewage sludge or sewage sludge sold or gave away sewage sludge in a bag or other container when one or more sewage sludge pollutant concentrations in the sewage sludge exceed a land application ceiling pollutant limit (see [Table 1 of 40 CFR 503.13](#)). In order to identify noncompliance, EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in [Table 1 of 40 CFR 503.13](#).

Biosolids or Sewage Sludge Monitored Parameter		Measurement Type	Unit of Measure (Dry Weight)	Sample Type	
Arsenic		Maximum	mg/kg	COMPOS	
Sample 1	= 11.9	Sample 2	= 6.8	Sample 3	= 9.9
Sample 4	= 6.8	Sample 5	= 6.12	Sample 6	= 5.9
Biosolids or Sewage Sludge Monitored Parameter		Measurement Type	Unit of Measure (Dry Weight)	Sample Type	
Cadmium		Maximum	mg/kg	COMPOS	
Sample 1	< 0.898	Sample 2	< 0.865	Sample 3	< 0.9
Sample 4	< 0.416	Sample 5	< 0.912	Sample 6	< 0.85

Biosolids or Sewage Sludge Monitored Parameter		Measurement Type		Unit of Measure (Dry Weight)		Sample Type	
Total Nitrogen (TKN plus Nitrate-Nitrite)		Average		mg/kg		COMPOS	
Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6		
= 4633	= 9864	= 9331	= 8122	= 7025	= 6311		

Monthly Average Pollutant Concentration Data for All Sewage Sludge Applied to Land *

This section summarizes the monitoring-period average pollutant concentrations in sewage sludge that was applied to land during the reporting year.

Biosolids or Sewage Sludge Monitored Parameter		Measurement Type		Unit of Measure (Dry Weight)		Sample Type	
Arsenic		Average		mg/kg		COMPOS	
Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6		
= 11.9	= 6.8	= 9.9	= 6.8	= 6.12	= 5.9		

Biosolids or Sewage Sludge Monitored Parameter		Measurement Type		Unit of Measure (Dry Weight)		Sample Type	
Cadmium		Average		mg/kg		COMPOS	
Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6		
< 0.898	< 0.865	< 0.9	< 0.416	< 0.912	< 0.85		

Biosolids or Sewage Sludge Monitored Parameter		Measurement Type		Unit of Measure (Dry Weight)		Sample Type	
Copper		Average		mg/kg		COMPOS	
Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6		
= 84.4	= 146	= 188	= 135	= 146	= 133		

Biosolids or Sewage Sludge Monitored Parameter		Measurement Type		Unit of Measure (Dry Weight)		Sample Type	
Lead		Average		mg/kg		COMPOS	
Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6		
= 8.41	= 9.63	= 9.5	= 6.94	= 8.64	= 8.43		

Biosolids or Sewage Sludge Monitored Parameter		Measurement Type		Unit of Measure (Dry Weight)		Sample Type	
Mercury		Average		mg/kg		COMPOS	
Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6		
= 0.176	= 0.226	< 0.1	= 0.165	= 0.141	= 0.14		

Biosolids or Sewage Sludge Monitored Parameter		Measurement Type		Unit of Measure (Dry Weight)		Sample Type	
Nickel		Average		mg/kg		COMPOS	
Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6		
= 49.4	= 11.9	= 14.2	= 11.7	= 10.7	= 10.6		

Biosolids or Sewage Sludge Monitored Parameter Measurement Type Unit of Measure (Dry Weight) Sample Type

Selenium Average mg/kg COMPOS

Sample 1 Sample 2 Sample 3 Sample 4 Sample 5 Sample 6

< 3.59 < 3.46 < 3.5 = 3.6 < 3.65 = 4.03

Biosolids or Sewage Sludge Monitored Parameter Measurement Type Unit of Measure (Dry Weight) Sample Type

Zinc Average mg/kg COMPOS

Sample 1 Sample 2 Sample 3 Sample 4 Sample 5 Sample 6

= 195 = 219 = 180 = 214 = 278 = 240

Pathogens: Class A, Fecal Coliform *

Biosolids or Sewage Sludge Monitored Parameter Measurement Type Unit of Measure (Dry Weight) Sample Type

Fecal Coliform Maximum MPN/gram COMPOS

Sample 1 Sample 2 Sample 3 Sample 4 Sample 5 Sample 6

< 5 < 3.12 < 3 < 3 < 3 < 3

Pathogens: Class A, Salmonella *

Biosolids or Sewage Sludge Monitored Parameter Measurement Type Unit of Measure (Dry Weight) Sample Type

Salmonella Maximum MPN per 4 grams COMPOS

Sample 1 Sample 2 Sample 3 Sample 4 Sample 5 Sample 6

N N N N N N

Additional Information

Please enter any additional information in the comment box below (limit to 3,900 characters) that you would like to provide.

Additional Attachments (maximum size 25 MB)
 File: Annual Sludge 2018.pdf

Certification Information
 Certifier E-Mail *
 dgregory@gallatinutilities.com

Confirm Certifier: dgregory@gallatinutilities.com *