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:

- NPDESeReporting@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. *

CAL048160: GOLETA WWTP

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://epanet.zendesk.com/hc/en-us/sections/207108787-General-Biosolids.

Facility Name: GOLETA WWTP

Street: 1 William Moffett Place

City: GOLETA

State: CA

Zip Code: 93117

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: *

- [x] a POTW with a design flow rate equal to or greater than one million gallons per day
- [x] 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	Description Text for Certification Section
Pathogens		
Ascaris ova.	☐ Sludge Monitoring - Ascaris ova. ☐ Other Ascaris ova. Analytical Method:	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	☒ ASTM Method D4994 - Enteric Viruses	ASTM Method D4994 - Enteric Viruses, "Standard Practice for Recovery of Viruses From Wastewater Sludges," ASTM International
	☐ Other Enteric Viruses Analytical Method:	
Fecal coliform	☐ 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]
	☒ Standard Method 9221 - Fecal Coliform	Standard Method 9221 - Fecal Coliform, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	☐ 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
	☐ EPA Method 1681 - Fecal Coliform	EPA Method 1681 - Fecal Coliform, Fecal Coliforms in Sewage Sludge (Biosolids) by MultipleTube Fermentation using A-1 medium, EPA-821-R-04-027, June 2005
	☐ Other Fecal Coliform Analytical Method:	
Helminth ova.	☐ 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
	☒ Other Helminth ova. Analytical Method:	EPA 625/R-92/013
Salmonella sp. Bacteria	☐ Standard Method 9260 - Salmonella	Standard Method 9260 - Salmonella, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	☐ 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
	☐ 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
	☒ Other Salmonella sp. Bacteria Analytical Method:	TMECC 07.02-A
Total Culturable Viruses	☐ 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
	☐ Other Total Culturable Viruses Analytical Method:	
Metals		
Arsenic	☒ 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
	☐ 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
	☐ 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
	☐ 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
	☐ Other Arsenic Analytical Method:	

Parameter	Method Number or Author	Description Text for Certification Section
Beryllium	☒ 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
	☐ 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
	☐ 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
	☐ 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
	☐ Other Beryllium Analytical Method	
Cadmium	☒ 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
	☐ 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
	☐ 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
	☐ 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
	☐ 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
	☐ Other Cadmium Analytical Method:	
Chromium	☒ 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
	☐ 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
	☐ 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
	☐ 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
	☐ 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
	☐ Other Chromium Analytical Method:	
Copper	☒ 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
	☐ 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
	☐ 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
	☐ 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
	☐ Other Copper Analytical Method:	
Lead	☒ 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
	☐ 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
	☐ 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
	☐ 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
	☐ 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
	☐ Other Lead Analytical Method:	

Parameter	Method Number or Author	Description Text for Certification Section
Mercury	☒ EPA Method 7471 - Mercury (CVAA)	EPA Method 7471 - Mercury in Solid or Semi-Solid Waste (Cold Vapor Atomic Absoprtion), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ Other Mercury Analytical Method:	
Molybdenum	☒ 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
	☐ 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
	☐ 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
	☐ 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
	☐ EPA Method 7481 - Molybdenum (AA-FT)	EPA Method 7481 - Molybdenum (Atomic Absorption - Furnace Technique), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ Other Molybdenum Analytical Method:	
Nickel	☒ 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
	☐ 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
	☐ 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
	☐ 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
	☐ Other Nickel Analytical Method:	
Selenium	☒ 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
	☐ 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
	☐ 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
	☐ EPA Method 7740 - Selenium (AA-FT)	EPA Method 7741A - Selenium (Atomic Absorption - Furnace Technique), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ 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
	☐ Other Selenium Analytical Method:	
Zinc	☒ 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
	☐ 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
	☐ 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
	☐ 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
	☐ Other Zinc Analytical Method:	

Nitrogen Compounds

Ammonia Nitrogen	☐ 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 Method 4500-NH3 - Ammonia Nitrogen, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	☐ Other Ammonia Nitrogen Analytical Method	

Parameter	Method Number or Author	Description Text for Certification Section
Nitrate Nitrogen	☒ 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
	☐ EPA Method 9210 - Nitrate Nitrogen (ISE)	EPA Method 9210 - Nitrate Nitrogen (Ion-Selective Electrode), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☐ Other Nitrate Nitrogen Analytical Method:	
Nitrogen	☒ Standard Method 4500-N - Nitrogen	Standard Method 4500-N - Nitrogen, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	☐ Other Nitrogen Analytical Method:	
Organic Nitrogen	☒ 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
	☐ Other Organic Nitrogen Analytical Method:	
Total Kjeldahl Nitrogen	☒ 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
	☐ Other Total Kjeldahl Nitrogen Analytical Method:	

Other Analytes

Fixed Solids	☐ 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
	☐ Other Fixed Solids Analytical Method:	
Paint Filter Test	☐ 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
	☐ Other Paint Filter Test Analytical Method:	
pH	☐ EPA Method 9040 - pH (≤ 7% solids)	EPA Method 9040 - pH (≤ 7% solids), "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Pub. SW-846
	☒ 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
	☐ Other pH Analytical Method:	
Specific Oxygen Uptake Rate	☐ Standard Method 2710 - SOUR	Standard Method 2710 - Specific Oxygen Uptake Rate, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	☐ Other Specific Oxygen Uptake Rate Analytical Method:	
TCLP	☐ 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
	☒ Other TCLP Analytical Method:	RCRA
Temperature	☒ Standard Method 2550 - Temperature	Standard Method 2550 - Temperature, "Standard Methods for the Examination of Water and Wastewater," American Public Health Association
	☐ Other Temperature Analytical Method:	
Total Solids	☒ 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
	☐ Other Total Solids Analytical Method:	

Parameter	Method Number or Author	Description Text for Certification Section
Volatile Solids	☒ 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
	☐ Other Volatile Solids Analytical Method:	
No Analytical Methods	☐ 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)? *

1070

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	Off-Site Third-Party Preparer	Distribution and Marketing - Compost

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) *
Bulk	Class A EQ (sale/give away)	1070

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 ◯ Unknown

Name of Off-Site Third-Party Handler, Preparer, or Applier for this Sewage Sludge Unique Identifier

Please complete the following information for the Off-Site Third-Party Handler, Preparer, or Applier for this Sewage Sludge Unique Identifier.You may optionally look up a NPDES ID to auto-populate this information. If fields remain blank after clicking the Lookup button, then no data exists and you must enter the information.

Off-Site Third-Party Handler, Preparer, or Applier Information

NPDES ID (if known)

Facility/Company Name *

Liberty Composting Inc.

Address *

12421 Holloway Road

City *

Lost Hills

State *

California

Zip Code *

93249

Off-Site Third-Party Handler, Preparer, or Applier Contact Information

First Name *

Patrick

Last Name *

McCarthy

Title *

General Manager

Phone (10-digits, No dashes) *

6617972914

Ext.

E-Mail Address

contact@libertyrecyc.com

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 Class A (must also demonstrate that meet fecal coliform or salmonella limits)
☐	A1	Class A-Alternative 1: Time/Temperature
☐	A2	Class A-Alternative 2: pH/Temperature/Percent Solids
☐	A3	Class A-Alternative 3: Test Enteric Viruses and Helminth ova; Operating Parameters
☐	A4	Class A-Alternative 4: Test Enteric Viruses and Helminth ova; No New Solids
☒	A51	Class A-Alternative 5 PFRP 1: Composting
☐	A52	Class A-Alternative 5 PFRP 2: Heat Drying
☐	A53	Class A-Alternative 5 PFRP 3: Liquid Heat Treatment
☐	A54	Class A-Alternative 5 PFRP 4: Thermophilic Aerobic Digestion (ATAD)
☐	A55	Class A-Alternative 5 PFPR 5: Beta Ray Irradiation
☐	A56	Class A-Alternative 5 PFPR 6: Gamma Ray Irradiation
☐	A57	Class A-Alternative 5 PFRP 7: Pasteurization
☐	A6	Class A-Alternative 6: PFRP Equivalency
☐	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 applier (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 appliers during the reporting period (see 40 CFR 503.27).

SSUID Section

Sewage Sludge Unique Identifier (SSUID): 002

Management Practice Type *	Handler, Preparer, or Applier Type *	Management Practice Detail *
Land Application	On-Site Owner or Operator	Distribution and Marketing - Other

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) *
Bulk	Class A EQ (sale/give away)	4.5

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 Class A (must also demonstrate that meet fecal coliform or salmonella limits)
☐	A1	Class A-Alternative 1: Time/Temperature
☐	A2	Class A-Alternative 2: pH/Temperature/Percent Solids
☒	A3	Class A-Alternative 3: Test Enteric Viruses and Helminth ova; Operating Parameters
☐	A4	Class A-Alternative 4: Test Enteric Viruses and Helminth ova; No New Solids
☐	A51	Class A-Alternative 5 PFRP 1: Composting
☐	A52	Class A-Alternative 5 PFRP 2: Heat Drying
☐	A53	Class A-Alternative 5 PFRP 3: Liquid Heat Treatment
☐	A54	Class A-Alternative 5 PFRP 4: Thermophilic Aerobic Digestion (ATAD)
☐	A55	Class A-Alternative 5 PFPR 5: Beta Ray Irradiation
☐	A56	Class A-Alternative 5 PFPR 6: Gamma Ray Irradiation
☐	A57	Class A-Alternative 5 PFRP 7: Pasteurization
☐	A6	Class A-Alternative 6: PFRP Equivalency
☐	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

- [x] 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 applier (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 appliers 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	03-31-2017
Sample 2 Time Period	04-01-2017	06-30-2017
Sample 3 Time Period	07-01-2017	09-30-2017
Sample 4 Time Period	10-01-2017	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		Sample 2		Sample 3		Sample 4	
=	8.4	=	9.3	=	9.3	=	12

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Cadmium	Maximum	mg/kg	COMPOS

Sample 1		Sample 2		Sample 3		Sample 4	
=	3.3	=	3.6	=	3.8	=	3.3

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Copper	Maximum	mg/kg	COMPOS

Sample 1	Sample 2	Sample 3	Sample 4
= 280	= 330	= 380	= 490

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Lead	Maximum	mg/kg	COMPOS

Sample 1	Sample 2	Sample 3	Sample 4
= 14	= 16	= 16	= 20

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Mercury	Maximum	mg/kg	COMPOS

Sample 1	Sample 2	Sample 3	Sample 4
< 1.0	< 1.0	= 0.92	< 1.0

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Molybdenum	Maximum	mg/kg	COMPOS

Sample 1	Sample 2	Sample 3	Sample 4
= 20	= 23	= 24	= 26

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Nickel	Maximum	mg/kg	COMPOS

Sample 1	Sample 2	Sample 3	Sample 4
= 35	= 37	= 41	= 39

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Selenium	Maximum	mg/kg	COMPOS

Sample 1	Sample 2	Sample 3	Sample 4
= 15	= 14	= 20	= 23

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Zinc	Maximum	mg/kg	COMPOS

Sample 1	Sample 2	Sample 3	Sample 4
= 610	= 720	= 710	= 750

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
= 45.1	= 51	= 66.8	= 75.2

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
= 8.28	= 8.9	= 7.17	= 8.43

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
= 3.28	= 3.4	= 3.21	= 2.61

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
= 275	= 292	= 336	= 379

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
= 14	= 13.5	= 14.6	= 16.9

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
< 1.0	< 1.0	<= 0.92	< 1

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
= 34.8	= 36.1	= 35.2	= 33.3

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	
=	14.8	=	13.9	=	15.8	=	16.2

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	
=	605	=	632	=	657	=	642

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	
<	7.5	<	7.5	<	7.5	<	7.5

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	
<	3	<	3	<	3	<	3

Pathogens: Class A, Helminth Ova and Enteric Viruses *

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Enteric Viruses	Arithmetic Mean	PFU per 4 grams	COMPOS

Sample 1		Sample 2		Sample 3		Sample 4	
N		N		N		N	

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Helminth Ova	Arithmetic Mean	MPN per 4 grams	COMPOS

Sample 1		Sample 2		Sample 3		Sample 4	
N		N		N		N	

Vector Attraction Reduction - Volatile Solids Options (Options 1-3) *

Biosolids or Sewage Sludge Monitored Parameter	Measurement Type	Unit of Measure (Dry Weight)	Sample Type
Solids, total volatile percent removal	Minimum	Percent	CALCTD

Sample 1		Sample 2		Sample 3		Sample 4	
=	46	=	60.2	=	51.9	=	62.8

Additional Information

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

Goleta Sanitary District produced a small amount of Class A biosolids during 2015. Biosolids dredged from stabilization basins and dried in the sludge drying beds were tested and given away as "Class A Biosolids of Exceptional Quality". These biosolids are to be used in home lawns and gardens, and as such, they are exempt from the General Requirements and Management Practices of 40 CFR Part 503 Sections 503.12 and 503.14, respectively. Throughout 2017 a total of 14.8 cubic yards (4.5 dry metric tons) of biosolids were distributed to the local community.
These Biosolids were tested for Enteric Virus and Helminth Ova during 2015 prior to making it available for give away. The test dates were: 3/24/15 and 11/10/15 with both test results of <1 pfu/4g TS and <1 Viable Ova/4g TS. The biosolids were also tested for fecal coliforms on 6/10/15 and 1/26/16 with results of < 1.8 MPN/g for both tests. In addition, the biosolids were tested for metals which were all below the 503.13 Table 3 limits. All analytical results are available upon request.

Additional Attachments (maximum size 25 MB)

File: Biosolids Annual Report 2017.pdf

Certification Information

I certify, under penalty of law, that the information in this report was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

Certifier E-Mail *

rhidalgo@goletasanitary.org

Form Action *

Approve