

## Biosolids Annual Report Landing Page / CITY OF IOWA CITY

NPDES ID: IAL070866

Facility Status: Active

Facility Name: CITY OF IOWA CITY

410 E. WASHINGTON STREET IOWA CITY, IA 52240

# View Annual Report



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460  
BIOSOLIDS ANNUAL REPORT

FORM  
Approved OMB No.  
2040-0004

EPA's sewage sludge regulations require certain publicly owned treatment works (POTWs) and Class I sewage sludge management facilities to submit to a Sewage Sludge (Biosolids) Annual Report (see 40 CFR 503.18 ([https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_118](https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_118)), 503.28 ([https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_128](https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_128)), 503.48 ([https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_148](https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_148))). Facilities that must submit a Sewage Sludge (Biosolids) Annual Report include POTWs with a design flow rate equal to or greater than one million gallons per day, POTWs that serve 10,000 people or more, Class I Sludge Management Facilities (as defined by 40 CFR 503.9 ([https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_19](https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_19))), and facilities otherwise required to file this report (e.g., permit condition, enforcement action, state law). This is the electronic form for Sewage Sludge (Biosolids) Annual Report filers to use if they are located in one of the states, tribes, or territories (<https://www.epa.gov/npdes/npdes-state-program-information>) where EPA administers the Federal biosolids program.

For the purposes of this form, the term 'sewage sludge' ([https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_19](https://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_19)) 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 EPA may contact you after you submit this report for more information regarding your sewage sludge management program.

## Program Information

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 part 503. The facility is:

- a Class I Sludge Management Facility as defined in 40 CFR 503.9
- 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

In the reporting period, did you manage your sewage sludge or biosolids using any of the following management practices: land application, surface disposal, or incineration?

YES  NO

If your facility is a POTW, please provide the estimated total amount of sewage sludge produced at your facility for the reporting period (in dry metric tons). If your facility is not a POTW, please provide the estimated total amount of biosolids produced at your facility for the reporting period (in dry metric tons).

2386

Reporting Period Start Date: 01/01/2018

Reporting Period End Date: 12/31/2018

## Treatment Processes

**Processes to Significantly Reduce Pathogens (PSRP):**

Anaerobic Digestion

**Processes to Further Reduce Pathogens (PFRP):**

Thermophilic Aerobic Digestion

**Physical Treatment Options:**

Preliminary Operations (e.g., sludge grinding, degritting, blending)

Thickening (e.g., gravity and/or flotation thickening, centrifugation, belt filter press, vacuum filter)

**Other Processes to Manage Sewage Sludge:**

Methane or Biogas Capture and Recovery

## Analytical Methods

Did you use any analytical methods to analyze sewage sludge in the reporting period?  YES  NO**Analytical Methods**

- EPA Method 7010 - Arsenic (GF-AAS)
- EPA Method 6010 - Cadmium (ICP-OES)
- EPA Method 6010 - Chromium (ICP-OES)
- EPA Method 6010 - Copper (ICP-OES)
- EPA Method 6010 - Lead (ICP-OES)
- EPA Method 7471 - Mercury (CVAA)
- EPA Method 6010 - Molybdenum (ICP-OES)
- EPA Method 6010 - Nickel (ICP-OES)
- EPA Method 7010 - Selenium (GF-AAS)
- EPA Method 6010 - Zinc (ICP-OES)
- EPA Method 351.2 - Total Kjeldahl Nitrogen
- Standard Method 4500-N - Nitrogen
- EPA Method 350.1 - Ammonia Nitrogen
- EPA Method 9056 - Nitrate Nitrogen (IC)
- Standard Method 4500-Norg - Organic Nitrogen
- Standard Method 2540 - Total Solids
- Standard Method 2540 - Fixed Solids
- Standard Method 2540 - Volatile Solids
- EPA Method 9045 - pH (> 7% solids)
- Standard Method 2550 - Temperature
- EPA Method 1680 - Fecal Coliform
- W.A. Yanko Method - Helminth ova.

Sludge Management - Land Application

ID: 001

Amount: 2386

Management Practice Detail: Agricultural Land Application

Bulk or Bag/Container: Bulk

Handler, Preparer, or Applier Type: On-Site Owner or Operator

Pathogen Class: Class A

Sewage Sludge or Biosolids Pathogen Reduction Options:

- Class A-Alternative 5; PFRP 4: Thermophilic Aerobic Digestion (ATAD)

Sewage Sludge or Biosolids Vector Attraction Reduction Options:

- Option 1 - Volatile Solids Reduction

Did the facility land apply bulk sewage sludge when one or more pollutants in the sewage sludge exceeded 90 percent or more of any of the cumulative pollutant loading rates in Table 2 of 40 CFR 503.13?

YES  NO  UNKNOWN

Monitoring Data

**INSTRUCTIONS:** Pollutants, pathogen densities, and vector attraction reduction must be monitored when sewage sludge or biosolids are applied to the land. Please use the following section to report monitoring data for the land application conducted by you or your facility in the reporting period for this SSUID. These monitoring data should be representative of the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID (40 CFR 503.8(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_18](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_18))). All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis. EPA will be using these data to demonstrate compliance with EPA's land application requirements (40 CFR 503, Subpart B).

Compliance Monitoring Periods

**INSTRUCTIONS:** Please use the table below to identify the start date and end date for each compliance monitoring period. The number of compliance monitoring periods reported will correspond to the required frequency of monitoring (monthly, quarterly, semi-annually, or annually). For example, if monthly monitoring is required, you should report 12 compliance monitoring periods. The required frequency is determined by the number of metric tons (dry weight basis) of sewage sludge or biosolids land applied in the reporting period for this SSUID (40 CFR 503.16 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_116](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_116))).

Compliance Monitoring Event No. 1

Compliance Monitoring Period Start Date:  
01/01/2018

Compliance Monitoring Period End Date:  
02/28/2018

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

**Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's 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 (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	3.75	
Cadmium	=	7.66	
Copper	=	479	
Lead	=	38.3	
Mercury	=	1.62	
Molybdenum	=	19.1	
Nickel	=	19.1	
Selenium	=	16.4	
Zinc	=	1830	

**Pathogen And Vector Attraction Reduction**

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	=	903.5	
Salmonella	=		

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	47	

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

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	3.75	
Cadmium	=	7.66	
Copper	=	479	

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Lead	=	38.3	
Mercury	=	1.62	
Nickel	=	19.1	
Selenium	=	16.4	
Zinc	=	1830	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	52900	

Compliance Monitoring Event No. 2

Compliance Monitoring Period Start Date:  
03/01/2018

Compliance Monitoring Period End Date:  
04/30/2018

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

**Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's 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 (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	2.7	
Cadmium	=	4.67	
Copper	=	435	
Lead	=	23.3	
Mercury	=	1.29	
Molybdenum	=	11.7	
Nickel	=	18.2	
Selenium	=	22.2	
Zinc	=	1580	

**Pathogen And Vector Attraction Reduction**

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	=	133	
Salmonella	=		

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	55.5	

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

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	2.7	
Cadmium	=	4.67	
Copper	=	435	

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Lead	=	23.3	
Mercury	=	1.29	
Nickel	=	18.2	
Selenium	=	22.2	
Zinc	=	1580	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	46200	



Compliance Monitoring Event No. 3

Compliance Monitoring Period Start Date:  
05/01/2018

Compliance Monitoring Period End Date:  
06/30/2018

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

**Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's 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 (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	3.31	
Cadmium	=	5.81	
Copper	=	483	
Lead	=	29	
Mercury	=	1.11	
Molybdenum	=	14.5	
Nickel	=	19.8	
Selenium	=	26.1	
Zinc	=	1660	

**Pathogen And Vector Attraction Reduction**

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	=	138.7	
Salmonella	=		

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	54	

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

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	3.31	
Cadmium	=	5.81	
Copper	=	483	

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Lead	=	29	
Mercury	=	1.11	
Nickel	=	19.8	
Selenium	=	26.1	
Zinc	=	1660	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	53200	

Compliance Monitoring Event No. 4

Compliance Monitoring Period Start Date:  
07/01/2018

Compliance Monitoring Period End Date:  
08/31/2018

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

**Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's 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 (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	2.42	
Cadmium	=	3.63	
Copper	=	409	
Lead	=	19.2	
Mercury	=	1.05	
Molybdenum	=	11.8	
Nickel	=	22.4	
Selenium	=	14.8	
Zinc	=	1600	

**Pathogen And Vector Attraction Reduction**

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	=	8.44	
Salmonella	=		

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	50	

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

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	2.42	
Cadmium	=	3.63	
Copper	=	409	

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Lead	=	19.2	
Mercury	=	1.05	
Nickel	=	22.4	
Selenium	=	14.8	
Zinc	=	1600	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	60100	

Compliance Monitoring Event No. 5

Compliance Monitoring Period Start Date:  
09/01/2018

Compliance Monitoring Period End Date:  
10/31/2018

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

**Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's 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 (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	2.08	
Cadmium	=	3.44	
Copper	=	421	
Lead	=	33.7	
Mercury	=	0.796	
Molybdenum	=	61.7	
Nickel	=	21.6	
Selenium	=	10.7	
Zinc	=	1890	

**Pathogen And Vector Attraction Reduction**

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	=	4.94	
Salmonella	=		

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	47	

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

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	2.08	
Cadmium	=	3.44	
Copper	=	421	

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Lead	=	33.7	
Mercury	=	0.796	
Nickel	=	21.6	
Selenium	=	10.7	
Zinc	=	1890	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	52900	

Compliance Monitoring Event No. 6

Compliance Monitoring Period Start Date:  
11/01/2018

Compliance Monitoring Period End Date:  
12/31/2018

Do you have analytical results to report for this monitoring period?  YES  NO

Are you reporting maximum pollutant concentrations that are equivalent to the monthly average pollutant concentrations for this compliance monitoring event? [For example, this will be the case if you only collected and analyzed one sample of sewage sludge or biosolids for this compliance monitoring period.]

YES  NO

**Maximum Concentration Data for All Sewage Sludge or Biosolids Applied to Land**

This section summarizes the maximum pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. In accordance with 40 CFR 503.13(a) ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)), EPA's 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 (Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113))). EPA will compare the pollutant concentrations in this section against the ceiling concentration limits in Table 1 of 40 CFR 503.13 ([http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503\\_113](http://www.ecfr.gov/cgi-bin/text-idx?node=pt40.32.503&rgn=div5#se40.32.503_113)) to identify noncompliance events. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Please only select a "No Data Indicator Code" if you are reporting no data for the sampling period or particular parameter.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	2.57	
Cadmium	=	4.58	
Copper	=	391	
Lead	=	22.9	
Mercury	=	1.03	
Molybdenum	=	11.4	
Nickel	=	22.8	
Selenium	=	8.81	
Zinc	=	1730	

**Pathogen And Vector Attraction Reduction**

Report the maximum pathogen densities in the sewage sludge or biosolids that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Fecal Coliform	=	41.29	
Salmonella	=		

Report the vector attraction reduction data for the biosolids or sewage sludge that was placed on an active sewage sludge unit during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Value	If No Data, Select One Of The Following
Solids, total volatile percent removal	=	59	

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

This section summarizes the monthly average pollutant concentrations in the biosolids or sewage sludge that was applied to land during the compliance monitoring period for this SSUID. All pollutant monitoring data should be reported in milligrams per kilogram (mg/kg), dry weight basis.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Arsenic	=	2.57	
Cadmium	=	4.58	
Copper	=	391	

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Lead	=	22.9	
Mercury	=	1.03	
Nickel	=	22.8	
Selenium	=	8.81	
Zinc	=	1730	

Report the average concentration (mg/kg, dry weight basis) of Total Nitrogen (TKN plus Nitrate-Nitrite, as N) in the sewage sludge or biosolids that was applied to land during the compliance monitoring period for this SSUID.

Sewage Sludge or Biosolids Parameter	Value Qualifier	Parameter Concentration (mg/kg, dry-weight basis)	If No Data, Select One Of The Following
Total Nitrogen (TKN plus Nitrate-Nitrite)	=	56900	

Sludge Management - Surface Disposal

Sludge Management - Incineration

Sludge Management - Other Management Practice

Additional Information

Please enter any additional information that you would like to provide in the comment box below.

Additional Attachments

Name	Created Date	Size
------	--------------	------

Certification Information

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. Signing an electronic document on behalf of another person is subject to criminal, civil, administrative, or other lawful action.

**Certified By:** Steven S. Flake (STEVEN-FLAKE@IOWA-CITY.ORG)

**Certified On:** 02/08/2019 10:43 AM



