### PART IV: BIOSOLIDS REQUIREMENTS PERMIT INSTRUCTIONS TO PERMITTEES

Select only those Elements and Sections that apply to your biosolids/sewage sludge reuse or disposal practice.

If your facility utilizes more than one type of disposal or reuse method (for example, Element 1 and Element 2 apply) or the quality of your biosolids/sewage sludge varies (for example, Section II and Section III of Element 1 apply) use a separate Discharge Monitoring Report (DMR) for each Section that is applicable.

The biosolids/sewage sludge DMRs shall be due by February 19 of each year and shall cover the previous January through December period.

The biosolids/sewage sludge conditions do not apply to wastewater treatment lagoons where biosolids/sewage sludge are not wasted for final reuse/disposal. If the biosolids/sewage sludge is not removed, the permittee shall indicate on the DMR "No Discharge".

#### NOTE:

The term "Biosolids" refers to municipal solid waste being land applied.

The term "Sewage Sludge" refers to municipal solid waste being disposed of in municipal solid waste landfill.

#### **ELEMENT 1 - LAND APPLICATION**

SECTION I: Page 1 - Requirements Applying to All Biosolids Land Application

SECTION II: Page 4 - Requirements Specific to Bulk Biosolids for Application to the Land Meeting Class A or B

Pathogen Reduction and the Cumulative Loading Rates in Table 2, or Class B Pathogen Reduction

and the Pollutant Concentrations in Table 3

SECTION III: Page 7 - Requirements Specific to Bulk Biosolids Meeting Pollutant Concentrations in Table 3 and Class A

Pathogen Reduction Requirements

SECTION IV: Page 8 - Requirements Specific to Biosolids Sold or Given Away in a Bag or Other Container for

Application to the Land that does not Meet the Pollutant Concentrations in Table 3

#### ELEMENT 2 - MUNICIPAL SOLID WASTE LANDFILL DISPOSAL

SECTION I: Page 10 - Requirements Applying to All Municipal Solid Waste Landfill Disposal Activities

#### **ELEMENT 1 - LAND APPLICATION**

#### **SECTION I: Requirements Applying to All Land Application of Biosolids**

#### A. General Requirements

- 1. The permittee shall handle and dispose of biosolids in accordance with the Oklahoma Pollutant Discharge Elimination System (OPDES) Act (hereafter "the Act") and all other applicable federal and state regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants which may be present in the biosolids.
- 2. If requirements for biosolids management practices or pollutant criteria become more stringent than the biosolids pollutant limits or acceptable management practices in this permit, or control a pollutant not listed in this permit, this permit may be modified or revoked and reissued to conform to the requirements promulgated under the Act. If new limits for any pollutant in Table 1 below are promulgated prior to permit expiration, then those limits shall become directly enforceable.
- 3. In all cases, if the person (permit holder) who prepares the biosolids and/or applies the biosolids to another person for land application use or to the owner or lease holder of the land, the permit holder shall provide necessary information to the parties who receive the biosolids to assure compliance with these regulations.

The permittee shall give prior notice to the Director, Water Quality Division, State of Oklahoma Department of Environmental Quality (DEQ), 707 North Robinson, Oklahoma City, Oklahoma 73101-1677 of any planned changes in the biosolids disposal practice, in accordance with 40 CFR § 122.41(I)(1)(iii). These changes may justify the application of permit conditions that are different from or absent in the existing permit. Change in the biosolids use or disposal practice may be cause for modification of the permit in accordance with 40 CFR § 122.62(a)(1).

#### **Testing Requirements**

- Biosolids shall be tested once during the life of the permit within one (1) year from the effective date of the permit in accordance with the method specified at 40 CFR, Part 268, Appendix I [Toxicity Characteristic Leaching Procedure (TCLP)] or other approved methods. Biosolids shall be tested after final treatment prior to leaving the publicly owned treatment works (POTW) site. Biosolids determined to be a hazardous waste in accordance with 40 CFR, Part 261, shall be handled according to Resource Conservation and Recovery Act (RCRA) standards for the disposal of hazardous waste in accordance with 40 CFR, Part 262. The disposal of biosolids determined to be a hazardous waste, in other than a certified hazardous waste disposal facility shall be prohibited. The DEQ, Waste Management Division at 405-702-5100, shall be notified of test failure within 24 hours. A written report shall be provided to this division within 7 days after failing the TCLP. The report will contain test results, certification that unauthorized disposal has not occurred and a summary of alternative disposal plans that comply with RCRA standards for the disposal of hazardous waste. The report shall be addressed to the Director, Waste Management Division, DEO, 707 N. Robinson, Oklahoma City, Oklahoma 73101-1677 and a copy sent to the Director, Water Quality Division, DEQ, at the same address.
- Biosolids shall not be applied to the land if the concentration of the pollutants exceeds the pollutant concentration criteria in Table 1. The frequency of testing for pollutants in Table 1 is found in Element 1, Section I.C.

	TIMBLE I
	Ceiling Concentration
<u>Pollutant</u>	(milligrams per kilogram) (mg/Kg)*
Arania	75

Arsenic	75
Cadmium	85
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
PCBs	49
Selenium	100
Zinc	7500

TARIE 1

#### Pathogen Control

All biosolids that is applied to agricultural land, forest, a public contact site, or a reclamation site shall be treated by either the Class A or Class B pathogen requirements. Biosolids that is applied to a lawn or home garden shall be treated by the Class A pathogen requirements. Biosolids that is sold or given away in a bag shall be treated by the Class A pathogen requirements.

#### Class A Biosolids Requirements:

Six (6) alternatives are available to demonstrate compliance with Class A biosolids. All six (6) options require either the density of fecal coliform in the biosolids be less than 1000 Most Probable Number (MPN) per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the biosolids be less than three MPN per four grams of total solids (dry weight basis) at the time the biosolids is used or disposed; at the time the biosolids is prepared for sale or given away in a bag or other container for application to the land. Below are the additional requirements necessary to meet the definition of a Class A biosolids.

The temperature of the biosolids that is used or disposed shall be maintained at a specific value for a period of time. Alternative 1: See 40 CFR § 503.32(a)(3)(ii) and Oklahoma Administrative Code (OAC) 252:606 for specific information.

(i) The pH of the biosolids that is used or disposed shall be raised to above 12 and shall remain above 12 for 72

- The temperature of the biosolids shall be above 52 degrees Celsius for 12 hours or longer during the period that the pH of the biosolids is above 12.
- (iii) At the end of the 72 hour period during which the pH of the biosolids is above 12, the biosolids shall be air dried to achieve a percent solids in the biosolids greater than 50 percent.

The biosolids shall be analyzed for enteric viruses prior to pathogen treatment. The limit for enteric viruses is one Plaque-forming Unit per four (4) grams of total solids (dry weight basis) either before or following pathogen treatment. See 40 CFR § 503.32(a)(5)(ii) for specific information. The biosolids shall be analyzed for viable helminth ova prior to pathogen treatment. The limit for viable helminth ova is less than one per four (4) grams of total solids (dry weight basis) either before or following pathogen treatment. See 40 CFR § 503.32(a)(5)(iii) and OAC 252:606 for specific information.

The density of enteric viruses in the biosolids shall be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the biosolids is used or disposed or at the time the biosolids are prepared for

#### Alternative 2:

### Alternative 3:

Alternative 4:

<sup>\*</sup> Dry weight basis

sale or given away in a bag or other container for application to the land.

(ii) The density of viable helminth ova in the biosolids shall be less than one per four grams of total solids (dry weight basis) at the time the biosolids are used or disposed or at the time the biosolids are prepared for sale or given away in a bag or other container for application to the land.

Alternative 5: Biosolids shall be treated by one of the Processes to Further Reduce Pathogens (PFRP) described in 40 CFR, Part 503' Appendix B. PFRPs include composting, heat drying, heat treatment, and thermophilic aerobic digestion.

Biosolids shall be treated by a process that is equivalent to a PFRP, if individually approved by the Pathogen Equivalency Committee representing the DEQ.

#### b. Class B Biosolids Requirements:

Alternative 6:

Three (3) alternatives are available to demonstrate compliance with Class B biosolids.

Alternative 1: (i) Seven separate random samples representative of the biosolids shall be collected for one monitoring episode at the time the biosolids are used or disposed.

(ii) The geometric mean of the density of fecal coliform in the samples collected shall be less than either 2,000,000 MPN per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

Alternative 2: Biosolids shall be treated in one of the Processes to Significantly Reduce Pathogens (PSRP) described in 40 CFR, Part 503, Appendix B.

Alternative 3: Biosolids shall be treated in a process that is equivalent to a PSRP, if individually approved by the Pathogen Equivalency Committee representing the DEQ.

In addition, the following site restrictions must be met if Class B biosolids are land applied:

- (1) Food crops with harvested parts that touch the biosolids /soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
- (2) Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of biosolids when the biosolids remains on the land surface for four (4) months or longer prior to incorporation into the soil.
- (3) Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of biosolids when the biosolids remains on the land surface for less than four (4) months prior to incorporation into the soil.
- (4) Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of biosolids.
- (5) Animals shall not be allowed to graze on the land for 30 days after application of biosolids.
- (6) Turf grown on land where biosolids is applied shall not be harvested for one (1) year after application of the biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority.
- (7) Public access to land with a high potential for public exposure shall be restricted for one (1) year after application of biosolids.
- (8) Public access to land with a low potential for public exposure shall be restricted for 30 days after application of biosolids.

#### 4. Vector Attraction Reduction Requirements

All bulk biosolids that are applied to agricultural land, forest, a public contact site, or a reclamation site shall be treated by one of the following Alternatives 1 through 10 for Vector Attraction Reduction. If bulk biosolids are applied to a home garden, or bagged biosolids are applied to the land, only Alternatives 1 through 8 shall be used.

Alternative 1: The mass of volatile solids in the biosolids shall be reduced by a minimum of 38 %.

Alternative 2: If Alternative 1 cannot be met for an anaerobically digested biosolids, demonstration can be made by digesting a portion of the previously digested biosolids anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30 and 37 degrees Celsius. Volatile solids must be reduced by less than 17 % to demonstrate compliance.

Alternative 3: If Alternative 1 cannot be met for an aerobically digested biosolids, demonstration can be made by digesting a portion of the previously digested biosolids with a percent solid of 2% or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20 degrees Celsius. Volatile solids must be reduced by less than 15 % to demonstrate compliance.

Alternative 4: The specific oxygen uptake rate (SOUR) for biosolids treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20 degrees Celsius.

Alternative 5: Biosolids shall be treated in an aerobic process for 14 days or longer. During that time, the minimum temperature of the biosolids shall be higher than 40 degrees Celsius and the average temperature of the biosolids shall be higher than 45

degrees Celsius.

Alternative 6:

The pH of biosolids shall be raised to 12 or higher by alkali addition and, without the addition of more alkali, shall remain at 12 or higher for two (2) hours and then at 11.5 or higher for an additional 22 hours.

Alternative 7:

The percent solids of biosolids that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75 % based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in biosolids that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 8:

The percent solids of biosolids that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90 % based on the moisture content and total solids prior to mixing with other materials. Unstabilized solids are defined as organic materials in biosolids that have not been treated in either an aerobic or anaerobic treatment process.

Alternative 9:

- (i) Biosolids shall be injected below the surface of the land.
- (ii) No significant amount of the biosolids shall be present on the land surface within one (1) hour after the biosolids is injected.
- (iii) When biosolids injected below the surface of the land are Class A with respect to pathogens, the biosolids shall be injected below the land surface within eight (8) hours after being discharged from the pathogen treatment process.

Alternative 10:

- (i) Biosolids applied to the land surface or placed on a surface disposal site shall be incorporated into the soil within six (6) hours after application to or placement on the land.
- (ii) When biosolids incorporated into the soil are Class A with respect to pathogens, the biosolids shall be applied to or placed on the land within eight (8) hours after being discharged from the pathogen treatment process.

#### C. Monitoring Requirements

Toxicity Characteristic Leaching Procedure (TCLP) Test
 performed within one (1) year from the effective date of the permit.

2. PCBs Once/Year

3. All other pollutants shall be monitored at the frequency shown below:

Amount of biosolids \*

 $0 \le Biosolids < 290$ 

(metric tons per 365 day period)

Once/Year

290 ≤ Biosolids < 1,500

Once/Quarter

Frequency

1,500 ≤ Biosolids < 15,000

Once/Two Months

15,000 ≤ Biosolids

Once/Month

Representative samples of biosolids shall be collected and analyzed in accordance with the methods referenced in 40 CFR § 503.8(b) and OAC 252:606.

# SECTION II: Requirements Specific to Bulk Biosolids for Application to the Land Meeting Class A or B Pathogen Reduction and the Cumulative Loading Rates in Table 2, or Class B Pathogen Reduction and the Pollutant Concentrations in Table 3

For those permittees meeting Class A or B pathogen reduction requirements and that meet the cumulative loading rates in Table 2 below, or the Class B pathogen reduction requirements and contain concentrations of pollutants below those listed in Table 3 found in Element 1, Section III, the following conditions apply:

<sup>\*</sup>Either the amount of bulk biosolids applied to the land or the amount of biosolids received by a person who prepares biosolids that is sold or given away in a bag or other container for application to the land (dry weight basis).

#### 1. Pollutant Limits:

#### TABLE 2

<u>Pollutant</u>	Cumulative Pollutant Loading Rate (kilograms per hectare) (kg/ha)
Arsenic	41
Cadmium	39
Copper	1500
Lead	300
Mercury	17
Molybdenum	Report
Nickel	420
Selenium	100
Zinc	2800

#### 2. Pathogen Control

All biosolids that are applied to agricultural land, forest, a public contact site, a reclamation site, or lawn or home garden shall be treated by either Class A or Class B pathogen reduction requirements as defined above in Element 1, Section I.B.3.

#### 3. Management Practices

- a. Bulk biosolids shall not be applied to agricultural land, forest, a public contact site, or a reclamation site that is flooded, frozen, or snow-covered so that the bulk biosolids enter a wetland or other waters of the state, as defined in 40 CFR § 122.2, except as provided in a permit issued pursuant to the Act.
- b. Bulk biosolids shall not be applied within 100 feet of a water of the state.
- c. Bulk biosolids shall be applied at or below the agronomic rate in accordance with recommendations from the following references:
  - (1) STANDARDS 1992, Standards, Engineering Practices and Data, 39th Edition (1992) American Society of Agricultural Engineers, 2950 Niles Road, St. Joseph, MI 49085-9659.
  - (2) National Engineering Handbook Part 651, Agricultural Waste Management Field Handbook (1992), P.O. Box 2890, Washington, D.C. 20013.
  - (3) Recommendations of local extension services or Soil Conservation Services.
  - (4) Recommendations of a major university's Agronomic Department.
- d. An information sheet shall be provided to the person who receives bulk biosolids that are sold or given away. The information sheet shall contain the following information:
  - (1) The name and address of the person who prepared the biosolids that are sold or given away in a bag or other container for application to the land
  - (2) A statement that application of the biosolids to the land is prohibited except in accordance with the instructions on the label or information sheet
  - (3) The annual whole biosolids application rate for the biosolids that does not cause any of the cumulative pollutant loading rates in Table 2 above to be exceeded, unless the pollutant concentrations in Table 3 found in Element 1. Section III below are met.

#### 4. Notification Requirements

- a. If bulk biosolids are applied to land in a state other than the state in which the biosolids are prepared, written notice shall be provided prior to the initial land application to the permitting authority for the state in which the bulk biosolids are proposed to be applied. The notice shall include:
  - (1) The location, by either street address or latitude and longitude, of each land application site.
  - (2) The approximate time period bulk biosolids will be applied to the site.
  - (3) The name, address, telephone number, and Oklahoma Pollutant Discharge Elimination System or National Pollutant Discharge Elimination System, whichever is applicable, permit number (if appropriate) for the person who prepares the bulk biosolids.
  - (4) The name, address, telephone number, and Oklahoma Pollutant Discharge Elimination System or National Pollutant Discharge Elimination System, whichever is applicable, permit number (if appropriate) for the person who will apply the bulk biosolids.
- b. The permittee shall give 60 days prior notice to the DEQ of any change planned in the biosolids practice. Any change shall include any planned physical alterations or additions to the permitted treatment works, changes in the permittee's biosolids use or disposal practice, and also alterations, additions, or deletions of disposal sites. These changes may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional disposal sites not reported during the permit application process or absent in the existing permit. Change in the biosolids use or disposal practice may be cause for modification of the permit in accordance with 40 CFR § 122.62(a)(1).

- c. The permittee shall provide the location of all existing biosolids disposal/use sites to the State Historical Commission within 90 days of the effective date of this permit. In addition, the permittee shall provide the location of any new disposal/use site to the State Historical Commission prior to use of the site.
- d. The permittee shall within 30 days after notification by the State Historical Commission that a specific biosolids disposal/use area will adversely affect a National Historic Site, cease use of such area.
- 5. Recordkeeping Requirements The biosolids documents will be retained on site at the same location as other OPDES records.
  - a. The person who prepares bulk biosolids or a biosolids material shall develop the following information and shall retain the information for **five** (5) **years**. If the permittee supplies the biosolids to another person who land applies the biosolids, the permittee shall notify the persons who land apply biosolids of the requirements for recordkeeping found in 40 CFR § 503.17 and OAC 252:606.
    - (1) The concentration of milligrams per kilogram (mg/Kg) in the biosolids of each pollutant listed in Table 3 found in Element I, Section III and the applicable pollutant concentration criteria (mg/Kg), or the applicable cumulative pollutant loading rate and the applicable cumulative pollutant loading rate limit of kilograms per hectare (kg/ha) listed in Table 2 above.
    - (2) A description of how the pathogen reduction requirements are met (including site restrictions for Class B biosolids, if applicable).
    - (3) A description of how the vector attraction reduction requirements are met.
    - (4) A description of how the management practices listed above in Section II.3 are being met.
    - (5) The recommended agronomic loading rate from the references listed in Section II.3.c above, as well as the actual agronomic loading rate shall be retained.
    - (6) A description of how the site restrictions in 40 CFR § 503.32(b)(5) and OAC 252:606 are met for each site on which Class B bulk biosolids are applied.
    - (7) The following certification statement:
      - "I certify, under penalty of law, that the management practices in 40 CFR § 503.14 have been met for each site on which bulk biosolids are applied. 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 the management practices have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."
    - (8) A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 40 CFR § 503.17(a)(4)(i)(B) or 40 CFR § 503.17(a)(5)(i)(B) as applicable to the permittees biosolids treatment activities.
    - (9) The permittee shall maintain information that describes future geographical areas where biosolids may be land applied.
    - (10) The permittee shall maintain information identifying site selection criteria regarding land application sites not identified at the time of permit application submission.
    - (11) The permittee shall maintain information regarding how future land application sites will be managed.
  - b. The person who prepares bulk biosolids or a biosolids material shall develop the following information and shall retain the information **indefinitely**. If the permittee supplies the biosolids to another person who land applies the biosolids, the permittee shall notify the persons who land apply biosolids of the requirements for recordkeeping found in 40 CFR § 503.17 and OAC 252:606.
    - (1) The location, by either street address or latitude and longitude, of each site on which biosolids are applied.
    - (2) The number of hectares in each site on which bulk biosolids are applied.
    - (3) The date and time biosolids are applied to each site.
    - (4) The cumulative amount of each pollutant in kilograms/hectare listed in Table 2 applied to each site.
    - (5) The total amount of biosolids applied to each site in metric tons.
    - (6) The following certification statement:
      - "I certify, under penalty of law, that the requirements to obtain information in 40 CFR § 503.12(e)(2) have been met for each site on which bulk biosolids are applied. 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 the requirements to obtain information have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."
    - (7) A description of how the requirements to obtain information in 40 CFR § 503.12(e)(2) and OAC 252:606 are met.
- 6. Reporting Requirements The permittee shall report annually on the DMR the following information:
  - a. Pollutants listed in Table 2 or 3 as appropriate for permittee's land application practices.

- b. The frequency of monitoring listed in Element 1, Section I.C which applies to the permittee.
- c. Toxicity Characteristic Leaching Procedure (TCLP) results (Pass/Fail).
- d. The concentration (mg/Kg) in the biosolids of each pollutant listed in Table 1 (defined as a monthly average) as well as the applicable pollutant concentration criteria (mg/Kg) listed in Table 3 found in Element 1, Section III, or the applicable pollutant loading rate limit (kg/ha) listed in Table 2 above if it exceeds 90% of the limit.
- e. Level of pathogen reduction achieved (Class A or Class B).
- f. Alternative used as listed in Section I.B.3.(a. or b.). Alternatives describe how the pathogen reduction requirements are met. If Class B biosolids, include information on how site restrictions were met in the DMR comment section or attach a separate sheet to the DMR.
- g. Vector attraction reduction alternative used as listed in Section I.B.4.
- h. Annual biosolids production in dry metric tons/year.
- i. Amount of biosolids land applied in dry metric tons/year.
- j. Amount of biosolids transported interstate in dry metric tons/year.
- k. The certification statement listed in 40 CFR § 503.17(a)(4)(i)(B) or 40 CFR § 503.17(a)(5)(i)(B) whichever applies to the permittees biosolids treatment activities shall be attached to the DMR.
- 1. When the amount of any pollutant applied to the land exceeds 90% of the cumulative pollutant loading rate for that pollutant, as described in Table 2, the permittee shall report the following information as an attachment to the DMR.
  - (1) The location, by either street address or latitude and longitude.
  - (2) The number of hectares in each site on which bulk biosolids is applied.
  - (3) The date and time bulk biosolids is applied to each site.
  - (4) The cumulative amount of each pollutant (i.e., kilograms/hectare) listed in Table 2 in the bulk biosolds applied to each site.
  - (5) The amount of biosolids (i.e., metric tons) applied to each site.
  - (6) The following certification statement:
    - "I certify, under penalty of law, that the requirements to obtain information in 40 CFR § 503.12(e)(2) have been met for each site on which bulk biosolids are applied. 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 the requirements to obtain information have been met. I am aware that there are significant penalties for false certification including fine and imprisonment."
  - (7) A description of how the requirements to obtain information in 40 CFR § 503.12(e)(2) and OAC 252:606 are met.

## SECTION III: Requirements Specific to Bulk or Bagged Biosolids Meeting Pollutant Concentrations in Table 3 and Class A Pathogen Reduction Requirements

For those permittees with biosolids that contain concentrations of pollutants below those pollutant limits listed in Table 3 for bulk or bagged (containerized) biosolids\_and also meet the Class A pathogen reduction requirements, the following conditions apply (Note: All bagged biosolids must be treated by Class A pathogen reduction requirements.):

1. Pollutant Limits - The concentration of the pollutants in the municipal biosolids are at or below the values listed.

#### TABLE 3

Pollutant	Monthly Average Concentration (milligrams per kilogram) (mg/Kg)*
Arsenic	41
Cadmium	39
Copper	1500
Lead	300
Mercury	17
Molybdenum	Report
Nickel	420
Selenium	36

Zinc 2800

\* Dry weight basis

#### Pathogen Control

All bulk biosolids that are applied to agricultural land, forest, a public contact site, a reclamation site, or lawn or home garden shall be treated by the Class A pathogen reduction requirements as defined above in Element I, Section I.B.3. All bagged biosolids must be treated by Class A pathogen reduction requirements.

- 3. Management Practices None.
- 4. Notification Requirements None.
- 5. Recordkeeping Requirements The permittee shall develop the following information and shall retain the information for five (5) years. The biosolids documents will be retained on site at the same location as other OPDES records.
  - a. The concentration (mg/Kg) in the biosolids of each pollutant listed in Table 3 and the applicable pollutant concentration criteria listed in Table 3.
  - b. A certification statement that all applicable requirements (specifically listed) have been met, and that the permittee understands that there are significant penalties for false certification including fine and imprisonment. See 40 CFR § 503.17(a)(1)(ii) or 40 CFR § 503.17(a)(3)(i)(B), and OAC 252:606 whichever applies to the permittees biosolids treatment activities.
  - c. A description of how the Class A pathogen reduction requirements are met.
  - d. A description of how the vector attraction reduction requirements are met.
  - 6. Reporting Requirements The permittee shall report annually on the DMR the following information:
  - a. Pollutants listed in Table 3 as appropriate for permittee's land application practices.
  - b. The frequency of monitoring listed in Element 1, Section I.C which applies to the permittee.
  - c. Toxicity Characteristic Leaching Procedure (TCLP) results. (Pass/Fail).
  - d. The concentration (mg/Kg) in the biosolids of each pollutant listed in Table 1 (defined as a monthly average) found in Element 1, Section I. In addition, the applicable pollutant concentration criteria listed in Table 3 should be included on the DMR.
  - e. Pathogen reduction Alternative used for Class A bagged or bulk biosolids as listed in Section I.B.3.a.
  - f. Vector attraction reduction Alternative used as listed in Section I.B.4.
  - g. Annual biosolids production in dry metric tons/year.
  - h. Amount of biosolids land applied in dry metric tons/year.
  - i. Amount of biosolids transported interstate in dry metric tons/year.
  - j. The certification statement listed in 40 CFR § 503.17(a)(1)(ii) or 40 CFR § 503.17(a)(3)(i)(B), and OAC 252:606 whichever applies to the permittees biosolids\_treatment activities, shall be attached to the DMR.

### SECTION IV: Requirements Specific to Biosolids Sold or Given Away in a Bag or Other Container for Application to the Land that Does Not Meet the Pollutant Concentrations in Table 3

1. Pollutant Limits

#### TABLE 4

<u>Pollutant</u>	Annual Pollutant Loading Rate (kilograms per hectare (kg/ha) per 365 day period)
Arsenic	2.0
Cadmium	1.9
Copper	75.0
Lead	15.0
Mercury	0.85
Molybdenum	Report

Nickel	21.0
Selenium	5.0
7inc	140.0

#### 2. Pathogen Control

All biosolids that are sold or given away in a bag or other container for application to the land shall be treated by the Class A pathogen requirements as defined in Section I.B.3.a.

#### 3. Management Practices

Either a label shall be affixed to the bag or other container in which biosolids that are sold or given away for application to the land, or an information sheet shall be provided to the person who receives biosolids that are sold or given away in another container for application to the land. The label or information sheet shall contain the following information:

- a. The name and address of the person who prepared the biosolids that are sold or given away in a bag or other container for application to the land.
- b. A statement that application of the biosolids to the land is prohibited except in accordance with the instructions on the label or information sheet.
- c. The annual whole biosolids application rate for the biosolids that will not cause any of the annual pollutant loading rates in Table 4 above to be exceeded.
- 4. Notification Requirements None.
- 5. Recordkeeping Requirements The biosolids documents will be retained on site at the same location as other OPDES records.

The person who prepares biosolids or a biosolids material shall develop the following information and shall retain the information for five (5) years.

- a. The concentration in the biosolids of each pollutant listed above in found in Element 1, Section I, Table 1.
- b. The following certification statement found in 40 CFR § 503.17(a)(6)(iii).

"I certify, under penalty of law, that the management practices in 40 CFR § 503.14(e), the Class A pathogen requirement in 40 CFR § 503.32(a), and the vector attraction reduction reduction reduction reduction reduction option) 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 the management practices, pathogen requirements, and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment".

- c. A description of how the Class A pathogen reduction requirements are met.
- d. A description of how the vector attraction reduction requirements are met.
- e. The annual whole biosolids application rate for the biosolids that does not cause the annual pollutant loading rates in Table 4 to be exceeded. See Appendix A to 40 CFR, Part 503 Procedure to Determine the Annual Whole Sludge Application Rate for Biosolids.
- 6. Reporting Requirements The permittee shall report annually on the DMR the following information:
  - a. Pollutant listed in Table 4 as appropriate for permittee's land application practices.
  - b. The frequency of monitoring listed in Element 1, Section I.C which applies to the permittee.
  - c. Toxicity Characteristic Leaching Procedure (TCLP) results (Pass/Fail).
  - d. The concentration (mg/Kg) in the biosolids of each pollutant listed above in Table 1 (defined as a monthly average) found in Element 1, Section
  - e. Class A pathogen reduction Alternative used as listed in Section I.B.3.a. Alternatives describe how the pathogen reduction requirements are met.
  - f. Vector attraction reduction Alternative used as listed in Section I.B.4.
  - g. Annual biosolids production in dry metric tons/year.
  - h. Amount of biosolids land applied in dry metric tons/year.
  - i. Amount of biosolids transported interstate in dry metric tons/year.
  - j. The following certification statement found in 40 CFR § 503.17(a)(6)(iii) shall be attached to the DMR.

"I certify, under penalty of law, that the management practice in 40 CFR § 503.14(e), the Class A pathogen requirement in 40 CFR §\_503.32(a), and the vector attraction reduction requirement (insert appropriate option) have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel gather and evaluate the information used to determine that the management practice, pathogen requirements, and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

#### ELEMENT 2 - MUNICIPAL SOLID WASTE LANDFILL DISPOSAL

#### SECTION I: Requirements Applying to all Sewage Sludge Disposed in a Municipal Solid Waste Landfill

- 1. The permittee shall handle and dispose of sewage sludge in accordance with the Act and all other applicable federal and state regulations to protect public health and the environment from any reasonably anticipated adverse effects due to any toxic pollutants that may be present. The permittee shall ensure that the sewage sludge meets the requirements in 40 CFR, Part 258 concerning the quality of the sewage sludge disposed in the municipal solid waste landfill (MSWLF) unit.
- If requirements for the sewage sludge management practices or pollutant criteria become more stringent than the sewage sludge pollutant limits or
  acceptable management practices in this permit, or control a pollutant not listed in this permit, this permit may be modified or revoked and reissued to
  conform to the requirements promulgated under the Act.
- 3. If the permittee generates sewage sludge and supplies that sewage sludge to the owner or operator of a MSWLF for disposal, the permittee shall provide to the owner or operator of the MSWLF appropriate information needed to be in compliance with the provisions of this permit.
- 4. The permittee shall give prior notice to the Director, Water Quality Division, DEQ, 707 N. Robinson, Oklahoma City, Oklahoma 73101-1677, of any planned changes in the sewage sludge disposal practice, in accordance with 40 CFR § 122.41(l)(1)(iii). These changes may justify the application of permit conditions that are different from or absent in the existing permit. Change in the sewage sludge use or disposal practice may be cause for modification of the permit in accordance with 40 CFR § 122.62(a)(1).
- 5. The permittee shall provide the location of all existing sewage sludge disposal/use sites to the State Historical Commission within 90 days of the effective date of this permit. In addition, the permittee shall provide the location of any new disposal/use site to the State Historical Commission prior to use of the site.
  - The permittee shall within 30 days after notification by the State Historical Commission that a specific sewage sludge disposal/use area will adversely affect a National Historic Site, cease use of such area.
- 6. Sewage sludge shall be tested once during the life of the permit within one (1) year from the effective date of the permit in accordance with the method specified at 40 CFR, Part 268, Appendix I [Toxicity Characteristic Leaching Procedure (TCLP)] or other approved methods. Sewage sludge shall be tested after final treatment prior to leaving the POTW site. Sewage sludge determined to be a hazardous waste in accordance with 40 CFR, Part 261, shall be handled according to RCRA standards for the disposal of hazardous waste in accordance with 40 CFR, Part 262. The disposal of sewage sludge determined to be a hazardous waste, in other than a certified hazardous waste disposal facility shall be prohibited. The DEQ, Waste Management Division at (405) 271-5338, shall be notified of test failure within 24 hours. A written report shall be provided to this office within 7 days after failing the TCLP. The report will contain test results, certification that unauthorized disposal has not occurred and a summary of alternative disposal plans that comply with RCRA standards for the disposal of hazardous waste. The report shall be addressed to the Director, Waste Management Division, DEQ, 707 N. Robinson, Oklahoma City, Oklahoma 73101-1677, and a copy sent to the Director, Water Quality Division, DEQ, at the same address.
- 7. Sewage sludge shall be tested as needed, or at a minimum, once/year in accordance with the method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Pub. No. SW-846).
- 8. Recordkeeping Requirements The permittee shall develop the following information and shall retain the information for five (5) years.
  - a. The description, including procedures followed, and results of the Paint Filter Tests performed.
  - b. The description, including procedures followed, and results of the TCLP Test.
- 9. Reporting Requirements The permittee shall report annually on the Discharge Monitoring Report the following information:
  - a. Results of the Toxicity Characteristic Leaching Procedure Test conducted on the sewage sludge to be disposed (Pass/Fail).
  - b. Annual sewage sludge production in dry metric tons/year.
  - c. Amount of sewage sludge disposed in a municipal solid waste landfill in dry metric tons/year.
  - d. Amount of sewage sludge transported interstate in dry metric tons/year.
  - e. A certification that the sewage sludge meets the requirements in 40 CFR, Part 258 concerning the quality of the sewage sludge disposed in a municipal solid waste landfill unit shall be attached to the DMR.