

3745-40-09

Approved sampling methods, monitoring frequency requirements, standard operating procedures, record retention, and annual reporting requirements.

[Comment: For dates of non-regulatory government publications, publications of recognized organizations and associations, federal rules and federal statutory provisions referenced in this rule, see rule 3745-40-01 of the Administrative Code.]

(A) Approved sampling analytical methods.

- (1) Except as provided in paragraph (A)(2) of this rule, a permittee shall collect and analyze, as applicable, representative samples of biosolids in accordance with table A-1 of this rule, or any other method as approved under 40 C.F.R. 503. ~~The following methods or methods listed in 40 C.F.R. Part 136 shall be used to analyze samples of biosolids and are adopted by reference in this chapter.~~

Table A-1. Approved methods for sampling.

Pollutant	Methods source	Methods number
<u>Enteric viruses</u>	<u>"Standard Practice for Recovery of Viruses from Wastewater Sludges", 1992 Annual Book of ASTM Standards: Section 11 - Water and Environmental Technology, ASTM, 1916 Race Street, Philadelphia, PA 19103-1187.</u>	<u>ASTM D 4994-89</u>
<u>Fecal coliform</u>	<u>"Standard Methods for the Examination of Water and Wastewater", 24th Edition, 2022, American Public Health Association, 1015 15th Street, NW, Washington, DC 20005.</u>	<u>Part 9221 E</u>
	<u>"Standard Methods for the Examination of Water and Wastewater", 24th Edition, 2022, American Public Health Association, 1015 15th Street, NW, Washington, DC 20005.</u>	<u>Part 9222 D</u>
	<u>40 CFR Part 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants.</u>	<u>EPA Method 1680</u>
	<u>40 CFR Part 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants.</u>	<u>EPA Method 1681</u>
<u>Helminth ova</u>	<u>Yanko, W.A., "Occurrence of Pathogens in Distribution and Marketing Municipal Sludges", EPA 600/1-87-014, 1987. National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161 (PB 88-154273/AS).</u>	<u>Yanko, 1987</u>
<u>Salmonella sp. bacteria</u>	<u>"Standard Methods for the Examination of Water and Wastewater", 24th Edition, 2022, American Public Health Association, 1015 15th Street, NW, Washington, DC 20005.</u>	<u>Part 9260 D</u>
	<u>Kenner, B.A. and H.P. Clark, "Detection and enumeration of Salmonella and Pseudomonas aeruginosa", Journal of the Water Pollution Control Federation, Vol. 46, No. 9, September 1974, pp. 2163-2171. Water Environment Federation, 601 Wythe Street, Alexandria, Virginia 22314.</u>	<u>Kenner and Clark, 1974</u>
	<u>40 CFR Part 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants.</u>	<u>EPA Method 1682</u>
<u>Specific oxygen uptake rate</u>	<u>"Standard Methods for the Examination of Water and Wastewater", 24th Edition, 2022, American Public Health Association, 1015 15th Street, NW, Washington, DC 20005.</u>	<u>Part 2710 B</u>
<u>Total, fixed, and volatile solids</u>	<u>"Standard Methods for the Examination of Water and Wastewater", 24th Edition, 2022, American Public Health Association, 1015 15th Street, NW, Washington, DC 20005.</u>	<u>Part 2540 G</u>
<u>Inorganic pollutants</u>		<u>SW-846 6010D</u>
	<u>"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA publication SW-846, Third Edition, Final Updates I (1993), II (1995), IIA (1994), IIB (1995), III (1997), IIIA (1999), IIIB (2005), IV (2008), and V (2015).</u>	<u>SW-846 7061A</u>
		<u>SW-846 7000B</u>
		<u>SW-846 7470A</u>
		<u>SW-846 7471B</u>

~~Table A-1: Approved methods for sampling.~~

Sample	Approved method	
Enteric viruses	ASTM D4994	
Fecal coliform	Part 9221E. or part 9222D., "Standard Methods for the Examination of Water and Wastewater"	
Foreign/inert matter	U.S. EPA 160.3 "Methods for Chemical Analysis of Water and Wastes"	
Helminth ova	Yanko, W.A. "Occurrence of Pathogens in Distribution and Marketing Municipal Sludges"	
Inorganic pollutants	"EPA SW-846—Test Methods for Evaluating Solid Waste, Physical/Chemical Methods"	
Salmonella sp. bacteria	Part 9260D., "Standard Methods for the Examination of Water and Wastewater" or Kenner, B.A. and H.P. Clark, "Detection and Enumeration of Salmonella and Pseudomonas aeruginosa."	
Specific oxygen uptake rate	Part 2710B., "Standard Methods for the Examination of Water and Wastewater"	
Total, fixed, and volatile solids	Part 2540G., "Standard Methods for the Examination of Water and Wastewater"	

- (2) The director may approve alternative **sampling analytical** methods to those listed in table A-1 of this rule provided the permittee submits a copy of the alternative **sampling analytical** method being proposed and any necessary

support documentation to the director for ~~consideration~~ approval prior to any sampling being done.

(B) Monitoring frequency requirements. For any NPDES permit issued by the director, monitoring frequencies shall be in accordance with this paragraph. In addition to the following monitoring frequencies, the director may require additional monitoring to protect public health or the environment:

(1) Total solids. Each day when sewage sludge or biosolids are removed from the treatment works for disposal or biosolids are removed for beneficial use, collect a representative composite sample of sewage sludge or biosolids and analyze it for total solids.

~~(a) Each day when sewage sludge or biosolids are removed from the treatment works for disposal, a representative composite sample of the sewage sludge or biosolids, as applicable, shall be collected and analyzed for total solids.~~

~~(b) Each day when biosolids are removed from the treatment works for beneficial use, a representative composite sample of the biosolids shall be collected and analyzed for total solids.~~

(2) Disposal in a landfill. Each day when sewage sludge or biosolids are disposed of in a landfill, document the total dry tons of sewage sludge or biosolids removed from a treatment works for disposal in a landfill and the total dry tons disposed in each landfill.

~~(2)~~(3) Transfer to another NPDES permitted treatment works for further treatment. Each day when sewage sludge or biosolids are transferred to another treatment works, document the total volume of sewage sludge or biosolids removed from the treatment works for transfer shall be documented and the total amount transferred to each receiving NPDES permitted treatment works.

~~(3)~~(4) Pathogen reduction. To ensure that pathogen reduction requirements are met prior to beneficial use, monitoringMonitoring shall occur for pathogen reduction prior to beneficial use.

(a) ~~Monitoring~~ Perform monitoring for pathogen reduction ~~shall be performed~~ as necessary to show compliance with all processing requirements in accordance with rule 3745-40-04 of the Administrative Code and, at a minimum, in accordance with table B-1 of this rule.

(b) If beneficial use does not occur in a reporting period, the number of

samples collected and reported for pathogen reduction shall be increased during the next beneficial use event to include the missed monitoring periods, unless all previously accumulated sewage sludge has been removed and disposed of ~~via~~ in a landfill, ~~though~~ through incineration or by transfer to another NPDES permitted treatment works.

~~{Comment: For example, for a treatment works that would be required to monitor their sewage sludge on a quarterly basis, but only has one annual beneficial use event, and that relies on fecal coliform monitoring to meet pathogen reduction, four separate sets of seven fecal coliform samples with the appropriate four separate geometric mean calculations would be required.}~~

~~(4)~~(5) Vector attraction. ~~To ensure that vector attraction requirements are met prior to beneficial use, monitoring~~Monitoring shall occur for vector attraction reduction prior to beneficial use except as provided in paragraph (B)(5)(b) of this rule.

(a) ~~Monitoring~~ Perform monitoring for vector attraction reduction ~~shall be performed~~ as necessary to show compliance with all processing requirements in accordance with rule 3745-40-04 of the Administrative Code and, at a minimum, in accordance with table B-1 of this rule.

(b) Monitoring for vector attraction reduction is not ~~required~~ necessary when vector attraction reduction options VAR-9 or VAR-10, in accordance with rule 3745-40-04 of the Administrative Code, are utilized.

~~(5)~~(6) Metals and nutrients.

(a) ~~The~~ Monitor for the following ~~is a list of~~ listed parameters ~~that shall be monitored for~~ prior to beneficial use in accordance with the frequencies in table B-1 of this rule:

(i) Metals:

(a) Arsenic.

(b) Cadmium.

(c) Copper.

(d) Lead.

(e) Mercury.

(f) Molybdenum.

(g) Nickel.

(h) Selenium.

(i) Zinc.

(ii) Nutrients:

(a) Ammonia nitrogen.

(b) Total kjeldahl nitrogen.

(c) Total phosphorus or other phosphorus testing authorized by Ohio EPA.

(d) Total potassium.

(b) For any NPDES permit or biosolids management plan issued by the director, the minimum frequency of monitoring for metals and nutrients shall be in accordance with table B-1 of this rule and either of the following: ~~This monitoring shall occur even if beneficial use does not occur during a reporting period, or the number of samples collected and reported shall be increased prior to the next beneficial use event to account for the reporting period in which beneficial use did not occur, unless all previously accumulated sewage sludge has been removed and disposed of via a landfill, through incineration or by transfer to another treatment works.~~

(i) Monitor metals and nutrients even if beneficial use does not occur during a reporting period.

~~(e)(ii) For any NPDES permit or biosolids management plan issued by the director that does not include sampling requirements for total phosphorus or total potassium, the minimum frequency of~~

~~monitoring for total phosphorus or total potassium shall be in accordance with table B-1 of this rule~~ Increase the number of samples collected and reported prior to the next beneficial use event to account for the reporting period in which beneficial use did not occur, unless all previously accumulated sewage sludge has been removed and disposed of in a landfill, through incineration or by transfer to another NPDES permitted treatment works.

Table B-1: Minimum frequency of monitoring ~~required~~ for the beneficial use of biosolids based on amount of sewage sludge generated per calendar year.

Amount of sewage sludge generated (dry U.S. tons per calendar year)	Minimum frequency of required monitoring
Greater than zero but less than three hundred twenty	Once per year
Greater than or equal to three hundred twenty but less than one thousand six hundred fifty	Once per quarter
Greater than or equal to one thousand six hundred fifty but less than sixteen thousand five hundred	Once every two months
Greater than or equal to sixteen thousand five hundred	Once per month

~~(6) Dioxin monitoring requirements.~~

~~(a) To protect public health or the environment, the director may require monitoring for dioxin for any treatment works, to do both of the following:~~

~~(i) To determine whether a significant increase is occurring in the dioxin concentration.~~

~~(ii) To assist in identifying the source of any such significant increase.~~

~~(b) If monitoring for dioxin is required, the treatment works shall monitor for dioxin in sewage sludge, such that all of the following requirements are met:~~

~~(i) All analyses for dioxin in sewage sludge that are required by this rule are performed by a laboratory equipped to provide accurate results.~~

~~(ii) All test results for dioxin are submitted to the appropriate Ohio environmental protection agency district office and the Ohio~~

~~environmental protection agency central office.~~

~~(iii) The 2, 3, 7, 8-TCDD total toxicity equivalence of the dioxin in sewage sludge, calculated from the twenty-nine dioxin congeners defined in rule 3745-40-01 of the Administrative Code, shall be reported as part of the permittee's monthly operating report.~~

~~(iv) All dioxin in sewage sludge monitoring results shall be retained by the permittee for a minimum of five years and shall be submitted to the Ohio environmental protection agency upon request. The results shall include all of the following:~~

~~(a) Total class concentrations of the dibenzo-p-dioxins and dibenzofurans in parts per trillion.~~

~~(b) Concentrations of the twenty-nine individual congeners in parts per trillion.~~

~~(c) Calculation of the 2, 3, 7, 8-TCDD total toxicity equivalence in parts per trillion.~~

~~(v) Both of the following analytical methods shall be used for the analysis of dioxin in sewage sludge:~~

~~(a) United States environmental protection agency method number 1613B, 1994 shall be used for the seven 2, 3, 7, 8-chlorinated dibenzo-p-dioxin congeners and ten 2, 3, 7, 8-chlorinated dibenzofuran congeners.~~

~~(b) United States environmental protection agency method number 1668A (U.S. EPA number 821/C-97-005821/C-97-005) shall be used for the twelve coplanar polychlorinated biphenyl congeners.~~

~~(vi) Non-detected values shall be reported as one-half of the detection limit.~~

~~(vii) The toxicity equivalence factors (TEF) listed in table B-2 of this rule shall be used in the calculation of the 2, 3, 7, 8-TCDD total toxicity equivalence.~~

~~Table B-2: Toxicity equivalent factors.~~

Congener	Toxicity equivalent factor
2, 3, 7, 8-tetrachlorodibenzo-p-dioxin	1.0
1, 2, 3, 7, 8-pentachlorodibenzo-p-dioxin	0.5

1, 2, 3, 4, 7, 8-hexachlorodibenzo-p-dioxin	0.1
1, 2, 3, 6, 7, 8-hexachlorodibenzo-p-dioxin	0.1
1, 2, 3, 7, 8, 9-hexachlorodibenzo-p-dioxin	0.1
1, 2, 3, 4, 6, 7, 8-heptachlorodibenzo-p-dioxin	0.01
1, 2, 3, 4, 6, 7, 8, 9-octachlorodibenzo-p-dioxin	0.001
2, 3, 7, 8-tetrachlorodibenzofuran	0.1
1, 2, 3, 7, 8-pentachlorodibenzofuran	0.05
2, 3, 4, 7, 8-pentachlorodibenzofuran	0.5
1, 2, 3, 4, 7, 8-hexachlorodibenzofuran	0.1
1, 2, 3, 6, 7, 8-hexachlorodibenzofuran	0.1
1, 2, 3, 7, 8, 9-hexachlorodibenzofuran	0.1
2, 3, 4, 6, 7, 8-hexachlorodibenzofuran	0.1
1, 2, 3, 4, 6, 7, 8-heptachlorodibenzofuran	0.01
1, 2, 3, 4, 7, 8, 9-heptachlorodibenzofuran	0.01
1, 2, 3, 4, 6, 7, 8, 9-octachlorodibenzofuran	0.001
3, 3', 4, 4'-tetrachlorobiphenyl	0.0001
3, 4, 4', 5-tetrachlorobiphenyl	0.0001
3, 3', 4, 4', 5-pentachlorobiphenyl	0.1
2, 3, 3', 4, 4'-pentachlorobiphenyl	0.0001
2, 3', 4, 4', 5-pentachlorobiphenyl	0.0001
2', 3, 4, 4', 5-pentachlorobiphenyl	0.0001
2, 3, 4, 4', 5-pentachlorobiphenyl	0.0005
3, 3', 4, 4', 5, 5'-hexachlorobiphenyl	0.01
2, 3, 3', 4, 4', 5-hexachlorobiphenyl	0.0005
2, 3, 3', 4, 4', 5'-hexachlorobiphenyl	0.0005

2, 3', 4, 4', 5, 5'-hexachlorobiphenyl	0.00001
2, 3, 3', 4, 4', 5, 5'-heptachlorobiphenyl	0.0001

~~(viii) If the sample shows results above three hundred parts per trillion total toxicity equivalence, all beneficial use or distribution of the biosolids shall cease.~~

(C) Standard operating procedures. The permittee, beneficial user, and distributor of biosolids shall develop standard operating procedures that are reviewed and updated annually, or more frequently, to address changes.

(1) The standard operating procedures developed and maintained by the permittee that generates biosolids shall include, at a minimum, the following information:

(a) Procedures used to meet the applicable pathogen reduction alternative requirements in accordance with paragraph (B) of rule 3745-40-04 of the Administrative Code.

(b) Procedures used to meet the applicable vector attraction reduction alternative requirements in accordance with paragraph (C) of rule 3745-40-04 of the Administrative Code.

(c) Procedures used to monitor the applicable biosolids parameters listed in paragraphs (A) and (B) of this rule.

(d) Procedures used for sampling and monitoring including, at a minimum, the following:

(i) Sample collection and monitoring locations.

(ii) The frequency at which sample collection and monitoring is to occur.

(iii) Sample collection and monitoring procedures.

(iv) Sample storage and preservation procedures.

(v) Sample and monitoring analysis procedures, including any calculations.

(e) For exceptional quality biosolids, procedures detailing how pathogen reduction is being met, either prior to, or at the same time as, meeting the vector attraction reduction requirements in accordance with paragraph (A)(2) of rule 3745-40-04 of the Administrative Code.

(f) A copy of the beneficial user beneficial use management plan in accordance with paragraph (C)(2) of this rule.

(2) The standard operating procedures developed and maintained by the beneficial user shall be compiled into a beneficial use management plan that contains, at a minimum, the following sections:

(a) Procedures for soil collection and monitoring at beneficial use sites in accordance with paragraphs (D)(3) to (D)(4) of rule 3745-40-08 of the Administrative Code.

(b) Procedures for acquiring the following information to calculate the agronomic rate:

(i) Nutrient concentrations of the biosolids from the most recent biosolids analysis.

(ii) Soil phosphorus test results that are less than three years old at the time of beneficial use.

(iii) Soil types.

(iv) Crop types.

(v) Average crop yields.

(vi) Determination of acres to be used.

(vii) All sources of nitrogen and phosphate such as commercial fertilizer or manure in addition to biosolids.

(c) A description of the beneficial use application equipment that includes the types, quantities, capacities, and functions of the equipment, and procedures detailing how that equipment is used and calibrated.

(d) Weather forecast monitoring procedures in accordance with paragraph (B)(4) of rule 3745-40-08 of the Administrative Code.

(e) The process used to ensure that sites are re-certificated in accordance with paragraph (F) of rule 3745-40-06 of the Administrative Code.

(f) For class B biosolids, beneficial use sign placement and monitoring procedures in accordance with rule 3745-40-11 of the Administrative Code.

(g) If applicable, subsurface tile drainage monitoring procedures developed in

accordance with paragraph (D)(5) of rule 3745-40-08 of the Administrative Code.

(h) If applicable, the drag line and mobile storage tank standard operating procedure set forth in paragraph (E)(4) of rule 3745-40-08 of the Administrative Code.

(i) If applicable, a narrative description of how the vector attraction reduction requirements in either paragraph (C)(9) or (C)(10) of rule 3745-40-04 of the Administrative Code are met at each site.

(j) If applicable, a description of how the requirements to obtain cumulative pollutant loading rate information in paragraph (D)(5) of rule 3745-40-04 of the Administrative Code are met.

(3) The standard operating procedures developed and maintained by the distributor of exceptional quality biosolids shall include, at a minimum, the following:

(a) Sources, quantities, and storage methods of exceptional quality biosolids received.

(b) As applicable, blending equipment, methods, and quality control measures.

(c) Method of distribution.

~~(E)~~(D) Record retention requirements. Record retention is required by all of the following ~~people~~:

(1) The permittee of ~~exceptional-quality~~ class B biosolids. In addition to the recordkeeping requirements in rule 3745-40-04 of the Administrative Code, the permittee ~~who prepares exceptional-quality~~ that generates class B biosolids for the purpose of beneficial use ~~or distribution~~ shall develop the following information, ~~shall retain the following information~~ it for a minimum of five years at the treatment works, and ~~shall make it all of the following information~~ available to the director or an authorized representative upon request:

(a) The results of all analyses ~~as required for parameters listed~~ in paragraph (B) of this rule ~~3745-40-09 of the Administrative Code.~~

(b) The following signed ~~certification~~ statement:

"I certify, under penalty of law, that the information that ~~will be~~ was used to determine compliance with the class B pathogen reduction

~~alternative~~ [insert one of the pathogen reduction alternatives ~~in paragraphs (B)(8) to (B)(16)~~ of rule 3745-40-04 of the Administrative Code] ~~in of~~ rule 3745-40-04 of the Administrative Code, ~~and the~~ vector attraction reduction ~~alternative requirement~~ [insert one of the vector attraction reduction ~~alternatives in paragraphs (C)(1) to (C)(8)~~ options of rule 3745-40-04 of the Administrative Code] ~~in of~~ rule 3745-40-04 of the Administrative Code, ~~and all applicable NPDES permit terms and conditions~~ 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."

- (c) ~~A narrative description, in the form of a standard operating procedure, of how the pathogen reduction alternative being utilized meets the applicable requirements of the pathogen reduction alternative, Copies of the notice and necessary information that were provided to the beneficial user, beneficial use site owner, and beneficial use site operator~~ in accordance with ~~paragraphs (B)(8) to (B)(16)~~ paragraph (A) of rule ~~3745-40-04~~ 3745-40-05 of the Administrative Code ~~and copies of beneficial user notice and necessary information in accordance with paragraph (B)~~ and a narrative description, in the form of a standard operating procedure, of how the vector attraction reduction alternative being utilized meets the applicable requirements of the vector attraction reduction alternative, in accordance with paragraphs (C)(1) to (C)(8) of rule 3745-40-04 3745-40-05 of the Administrative Code. ~~The standard operating procedure shall include the following, at a minimum, when applicable:~~
- ~~(i) Sample collection or monitoring locations.~~
 - ~~(ii) The frequency at which sample collection or monitoring is to occur.~~
 - ~~(iii) Sample collection or monitoring procedures.~~
 - ~~(iv) Sample storage and preservation procedures.~~
 - ~~(v) Sample or monitoring analysis procedures, including any calculations required for sample or monitoring analysis.~~
 - ~~(vi) A description of how pathogen reduction is being met, either prior to, or at the same time as meeting the vector attraction reduction requirements in accordance with paragraph (A)(1)(a) of rule 3745-40-04 of the Administrative Code.~~
- (d) ~~An example of the notice and necessary information that is provided to~~

~~each initial recipient of the biosolids.~~ Copies of the beneficial use site authorization applications and the Ohio environmental protection agency beneficial use site authorization letters for each beneficial use site utilized for beneficial use.

(e) A copy of the information ~~required to be~~ maintained in accordance with paragraph ~~(C)(2)~~(D)(4) of this rule.

~~(f) If the permittee is distributing exceptional quality biosolids, contact information for each person who receives the exceptional quality biosolids.~~

(2) The ~~beneficial user of bulk~~ permittee that generates exceptional quality biosolids. ~~The person~~ In addition to the recordkeeping requirements in rule 3745-40-04 of the Administrative Code, the permittee who ~~beneficially uses bulk~~ generates exceptional quality biosolids for the purpose of beneficial use or distribution shall develop the following information, ~~shall~~ retain ~~the following information~~ it for a minimum of five years at the treatment works, and ~~shall~~ make ~~all of the following information~~ it available to the director or an authorized representative upon request:

(a) The results of all analyses for parameters listed in paragraph (B) this rule.

~~(a)~~(b) The following ~~certification~~ signed statement:

"I certify, under penalty of law, that the information that ~~will be~~was used to determine compliance with ~~the storage requirements of pathogen reduction requirements~~ [insert one of the pathogen reduction alternatives in paragraphs (B)(8) to (B)(16)] of rule 3745-40-~~07~~ 04 of the Administrative Code, the vector attraction reduction requirements [insert one of the vector attraction reduction requirements in paragraphs (C)(1) to (C)(8) of rule 3745-40-04 of the Administrative Code]~~of the Administrative Code, and the beneficial use requirements~~ of rule 3745-40-~~08~~ 04 of the Administrative Code, and all applicable NPDES permit terms and conditions 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."

~~(b)~~(c) ~~Records showing that the bulk~~ Copies of the notice and necessary information that were provided to each initial recipient of the exceptional quality biosolids ~~were not stored for more than ninety days at any beneficial use site, in accordance with table F-1 of rule~~

~~3745-40-07 of the Administrative Code.~~

~~(e)(d) If applicable, a copy~~Copies of the ~~tile drainage operating procedure developed~~applicable information maintained in accordance with paragraph ~~(D)(3) or (D)(4) of this rule 3745-40-08 of the Administrative Code and a copy of the drag line and mobile storage tank standard operating procedure developed in accordance with paragraph (E)(10) of rule 3745-40-08 of the Administrative Code.~~

~~(d) Records showing that the beneficial use requirements in rule 3745-40-08 of the Administrative Code have been met at each beneficial use site including, but not limited to, all of the following:~~

~~(i) The soil phosphorous levels for each beneficial use site.~~

~~(ii) The agronomic rate calculations for each beneficial use site.~~

~~(iii) If a multi-year phosphate agronomic rate is utilized, the period of time for with the rate was calculated.~~

~~(iv) Forecast or actual precipitation data in accordance with paragraphs (B)(4) and (B)(5) of rule 3745-40-08 of the Administrative Code;~~

~~(v) If applicable, the monitoring records for all beneficial use sites with subsurface tile drainage in accordance with paragraph (D)(4) of rule 3745-40-08 of the Administrative Code.~~

~~(e) A description of how the agronomic rate is met at each beneficial use site including, but not limited to, all of the following:~~

~~(i) Nutrient concentrations of the biosolids.~~

~~(ii) Soil phosphorus test results.~~

~~(iii) Soil types.~~

~~(iv) Crop types.~~

~~(v) Expected crop yield.~~

~~(vi) Crop nitrogen requirements.~~

~~(vii) All sources of nitrogen and phosphate such as commercial fertilizer or manure in addition to biosolids.~~

~~(viii) Phosphorus index calculations if applicable.~~

~~(ix) How the beneficial use application equipment is calibrated.~~

~~[Comment: An agronomic rate calculation worksheet with instructions is available at: <http://epa.ohio.gov/dsw/sludge/biosolid.aspx#137944357> compliance tools. The instructions include available references to determine soil types, crop yields, and phosphorus index guidance.]~~

~~(f) The date the bulk exceptional quality biosolids were beneficially used on each beneficial use site and the quantity of bulk exceptional quality biosolids (in dry tons) that were beneficially used on each beneficial use site on that date.~~

~~(g) A copy of the information provided to the beneficial use site operator in accordance with paragraph (B) of rule 3745-40-05 of the Administrative Code.~~

(3) The permittee distributor of class B exceptional quality biosolids. ~~In addition to the recordkeeping requirements in rule 3745-40-04 of the Administrative Code, the permittee who prepares class B~~The distributor of exceptional quality biosolids ~~for the purpose of beneficial use~~ shall develop the following information, ~~shall retain the following information~~ it for a minimum of five years at the treatment works, and ~~shall make it all of the following information~~ available to the director or an authorized representative upon request:

~~(a) The results of all analyses as required in paragraph (B) of rule 3745-40-09 of the Administrative Code.~~

~~(b) The following certification statement:~~

~~"I certify, under penalty of law, that the information that will be used to determine compliance with the class B pathogen reduction requirements in rule 3745-40-04 of the Administrative Code and the vector attraction reduction requirement in [insert one of the vector attraction reduction options in rule 3745-40-04 of the Administrative Code, Option VAR-1 to Option VAR-8 if one of those requirements is met] 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."~~

~~(c) A narrative description, in the form of a standard operating procedure, of~~

~~how the pathogen reduction alternative being utilized meets the applicable requirements of the pathogen reduction alternative, in accordance with paragraphs (B)(1) to (B)(7) of rule 3745-40-04 of the Administrative Code and, if applicable, a narrative description, in the form of a standard operating procedure, of how the vector attraction reduction alternative being utilized meets the applicable requirements of the vector attraction reduction alternative, in accordance with paragraphs (C)(1) to (C)(8) of rule 3745-40-04 of the Administrative Code. The standard operating procedure shall include all of the following at a minimum, when applicable:~~

~~(i) Sample collection or monitoring locations.~~

~~(ii) The frequency at which sample collection or monitoring is to occur.~~

~~(iii) Sample collection or monitoring procedures.~~

~~(iv) Sample storage and preservation procedures.~~

~~(v) Sample or monitoring analysis procedures, including any calculations required for sample or monitoring analysis.~~

~~(d)(a) An example~~ A copy of the notice and necessary information that ~~is~~was provided ~~to by~~ the ~~beneficial user, land owner, and farm operator~~permittee in accordance with paragraph (A) of rule 3745-40-05 of the Administrative Code and a copy of the notice and necessary information that was provided to the receiver of the biosolids or a copy of the label affixed to the container in accordance with paragraph (C) of rule 3745-40-05 of the Administrative Code.

~~(e) A copy of the application for an authorization for a beneficial use site and the Ohio environmental protection agency beneficial use site authorization letter for each beneficial use site that is utilized for beneficial use.~~

~~(f) A copy of the information required to be maintained in accordance with paragraph (C)(4) of this rule.~~

- (4) The beneficial user of bulk exceptional quality biosolids, class B biosolids, or class B biosolids subject to cumulative pollutant loading rates. The person who beneficially uses bulk exceptional quality biosolids, class B biosolids, or class B subject to cumulative pollutant loading rates biosolids shall develop the following information, ~~shall~~ retain ~~the following information~~ it for a minimum of five years, and ~~shall~~ make ~~all of the following information~~ it available to the director or an authorized representative upon request:

(a) The following signed statement for each applicable biosolids classification:

(i) Bulk exceptional quality biosolids:

"I certify, under penalty of law, that the information that was used to determine compliance with the storage requirements of rule 3745-40-07 of the Administrative Code, the beneficial use requirements of rule 3745-40-08 of the Administrative Code, and all applicable NPDES permit terms and conditions 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."

~~(a)(ii) The following certification statement~~Class B biosolids:

"I certify, under penalty of law, that the information that ~~will~~ ~~be~~was used to determine compliance with the storage requirements of rule 3745-40-07 of the Administrative Code, the beneficial use requirements of rule 3745-40-08 of the Administrative Code, and the vector attraction reduction requirement ~~in~~ [insert either vector attraction reduction option 9 or 10 from paragraph (C) of rule 3745-40-04 of the Administrative Code, if applicable] of rule 3745-40-04 of the Administrative Code, and all applicable NPDES permit terms and conditions 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."

(iii) Class B biosolids subject to cumulative pollutant loading rates:

"I certify, under penalty of law, that the information that was used to determine compliance with the requirement to obtain information in paragraph (D)(5) of rule 3745-40-04 of the Administrative Code, and all applicable NPDES permit terms and conditions was prepared for each beneficial use site on which biosolids were applied 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."

(b) Records ~~showing of the dates~~ that ~~the~~ class B or bulk exceptional quality biosolids were ~~not~~ stored ~~for more than ninety days during each calendar year at the any~~ beneficial use site or contiguous beneficial use site, and that the class B or bulk exceptional quality biosolids were stored in accordance with ~~table F-1~~paragraph (C) of rule 3745-40-07 of the Administrative Code.

~~(e) If applicable, a copy of the tile drainage operating procedure developed in accordance with paragraph (D)(4) of rule 3745-40-08 of the Administrative Code and a copy of the drag line and mobile storage tank standard operating procedure developed in accordance with paragraph (E)(10) of rule 3745-40-08 of the Administrative Code.~~

~~(d)~~(c) Records showing ~~that~~ whether the beneficial use requirements in rule 3745-40-08 of the Administrative Code have been met at each beneficial use site including, but not limited to, all of the following:

(i) The soil phosphorus and pH for each beneficial use site.

~~(ii) The soil phosphorous levels for each beneficial use site.~~

~~(iii)~~(ii) The agronomic rate calculations for each beneficial use site.

~~(iv)~~(iii) If a multi-year phosphate agronomic rate is utilized, the period of time for which the rate was calculated.

~~(v)~~(iv) Forecast Weather forecast or actual precipitation data in accordance with paragraphs (B)(4) and (B)(5) of rule 3745-40-08 of the Administrative Code.

~~(vi) If applicable, the monitoring records for all beneficial use sites with subsurface tile drainage in accordance with paragraph (D)(4) of rule 3745-40-08 of the Administrative Code.~~

~~(vii)~~(v) The sign placement records for all authorized beneficial use sites in accordance with paragraph (D) of rule 3745-40-11 of the Administrative Code.

(vi) If applicable, the monitoring records for all beneficial use sites with subsurface tile drainage in accordance with paragraph (D)(5) of rule 3745-40-08 of the Administrative Code.

~~(e)~~(d) A description of how the agronomic rate is met at each beneficial use site including, but not limited to, all of the following: The name of the permittee who generates the class B or bulk exceptional quality biosolids being beneficially used at each beneficial use site.

~~(i) Nutrient concentrations of the biosolids.~~

~~(ii) Soil phosphorus test results.~~

~~(iii) Soil types.~~

~~(iv) Crop types.~~

~~(v) Expected crop yield.~~

~~(vi) Crop nitrogen requirements.~~

~~(vii) All sources of nitrogen and phosphate such as commercial fertilizer or manure in addition to biosolids.~~

~~(viii) Phosphorus index calculations, if applicable.~~

~~(ix) How the beneficial use application equipment is calibrated.~~

~~[Comment: An agronomic rate calculation worksheet with instructions is _____ available _____ at: <http://epa.ohio.gov/dsw/sludge/biosolid.aspx#137944357> compliance tools. The instructions include available references to determine soil types, crop yields and phosphorus index guidance.]~~

~~(f)~~(e) If applicable, a narrative description of how the vector attraction reduction requirements in either paragraph (C)(9) or (C)(10) of rule 3745-40-04 of the Administrative Code are met at each beneficial use site. At a minimum, this description shall include the following: The location, by the Ohio EPA site identification number for class B biosolids or latitude and longitude for bulk exceptional quality biosolids, of each beneficial use site on which class B or bulk exceptional quality biosolids are beneficially used.

~~(i) If VAR 9 is being performed in accordance with paragraph (C)(9) of rule 3745-40-04 of the Administrative Code, a description of both of the following:~~

~~(a) The equipment utilized to inject the biosolids.~~

- ~~(b) How the beneficial user ensures that there is not a significant amount of the biosolids present on the surface of the authorized beneficial use site.~~
- ~~(ii) If VAR-10 is being performed in accordance with paragraph (C)(10) of rule 3745-40-04 of the Administrative Code, a description of all of the following:~~
- ~~(a) The date and time the sewage sludge was delivered to the authorized beneficial use site.~~
- ~~(b) The date and time class B biosolids were incorporated into the soil of the authorized beneficial use site.~~
- ~~(c) The equipment utilized to incorporate the biosolids.~~
- ~~(d) How the beneficial user ensures that the biosolids are mixed with soil to a minimum depth of four inches or greater on the authorized beneficial use site.~~
- ~~(g)(f) The date and quantity (in dry tons) of class B or bulk exceptional quality biosolids that were beneficially used at on each authorized beneficial use site ~~and the quantity of class B biosolids (in dry tons) that were beneficially used at each authorized beneficial use site on that date.~~~~
- (i) If VAR-10 is being performed in accordance with paragraph (C)(10) of rule 3745-40-04 of the Administrative Code, records of both the time when the biosolids are delivered and the time when they are incorporated into the soil at each beneficial use site.
- (g) The total number of acres used during each beneficial use event at each beneficial use site.
- (h) A map of each beneficial use site that, at a minimum, depicts:
- (i) Beneficial use site entrances.
- (ii) Areas where beneficial use occurred.
- (iii) Applicable isolation distances.
- (iv) Field storage locations, if applicable.
- (v) Subsurface tile outlet locations, if applicable.

~~(h)~~(i) A copyCopies of the notice and necessary information ~~provided to the beneficial use site operator~~received from the permittee of class B or bulk exceptional quality biosolids in accordance with paragraph ~~(B)~~ (A) of rule 3745-40-05 of the Administrative Code;

[Comment: Beneficial users should use the notice and necessary information received from permittees prior to beneficial use to determine whether the biosolids that are to be beneficially used meet the class B or exceptional quality biosolids classification in accordance with rule 3745-40-04 of the Administrative Code.]

(j) Copies of the notice and necessary information provided to the beneficial use site operator and permittee in accordance with paragraph (B) of rule 3745-40-05 of the Administrative Code.

(k) A copy of the certified beneficial user certificate issued by Ohio EPA in accordance with rule 3745-40-13 of the Administrative Code.

(l) Class B biosolids subject to cumulative pollutant loading rates specific records:

(i) The cumulative amount, in pounds per acre, of each metal listed in table D-2 of rule 3745-40-04 of the Administrative Code that is beneficially used at each beneficial use site.

(ii) A description of how the requirements in paragraph (D)(4) of rule 3745-40-04 of the Administrative Code are met.

(iii) A copy of the notification given to Ohio EPA in accordance with paragraph (D)(5) of rule 3745-40-04 of the Administrative Code.

~~(5) The permittee who generates class B biosolids subject to cumulative pollutant loading rates. In addition to the recordkeeping requirements in rule 3745-40-04 of the Administrative Code, the permittee who prepares class B biosolids that are subject to cumulative pollutant loading rates, for the purpose of beneficial use, shall develop the following information, shall retain the following information for a minimum of five years at the treatment works, and shall make all of the following information available to the director or an authorized representative upon request:~~

~~(a) The results of all analyses as required in paragraph (B) of rule 3745-40-09 of the Administrative Code.~~

~~(b) The following certification statement:~~

~~"I certify, under penalty of law, that the information that will be used to determine compliance with the class B pathogen reduction requirements in rule 3745-40-04 of the Administrative Code and the vector attraction reduction requirement in [insert one of the vector attraction reduction options in rule 3745-40-04 of the Administrative Code, Option VAR-1 to Option VAR-8 if one of those requirements is met] 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."~~

~~(c) A narrative description, in the form of a standard operating procedure, of how the pathogen reduction alternative being utilized meets the applicable requirements of the pathogen reduction alternative, in accordance with paragraphs (B)(1) to (B)(7) of rule 3745-40-04 of the Administrative Code and, if applicable, a narrative description, in the form of a standard operating procedure, of how the vector attraction reduction alternative being utilized meets the applicable requirements of the vector attraction reduction alternative, in accordance with paragraphs (C)(1) to (C)(8) of rule 3745-40-04 of the Administrative Code. The standard operating procedure shall include all of the following at a minimum, when applicable:~~

~~(i) Sample collection or monitoring locations.~~

~~(ii) The frequency at which sample collection or monitoring is to occur.~~

~~(iii) Sample collection or monitoring procedures.~~

~~(iv) Sample storage and preservation procedures.~~

~~(v) Sample or monitoring analysis procedures, including any calculations required for sample or monitoring analysis.~~

~~(d) An example of the notice and necessary information that is provided to the beneficial user, land owner, and farm operator.~~

~~(e) A copy of the application for an authorization for a beneficial use site and the Ohio environmental protection agency beneficial use site authorization letter for each beneficial use site that is utilized for beneficial use.~~

~~(f) A copy of the information required to be maintained in accordance with paragraph (C)(6) of this rule.~~

~~(6) The beneficial user of class B biosolids subject to cumulative pollutant loading~~

~~rates. The person who beneficially uses class B biosolids subject to cumulative pollutant loading rates shall develop the following information, shall retain the following information indefinitely, and shall make all of the following information available to the director or an authorized representative upon request:~~

~~(a) The location, by either street address or latitude and longitude, of each beneficial use site on which class B are beneficially used.~~

~~(b) The number of acres of each beneficial use site where the class B biosolids are beneficially used.~~

~~(c) The date the class B biosolids were beneficially used at the beneficial use site.~~

~~(d) The cumulative amount, in pounds per acre, of each metal listed in table D-2 of rule 3745-40-04 of the Administrative Code that is beneficially used at each beneficial use site.~~

~~(e) The amount of class B biosolids, measured in dry tons, that are beneficially used at each beneficial use site.~~

~~(f) The following certification statement:~~

~~"I certify, under penalty of law, that the information that will be used to determine compliance with the requirement to obtain information in paragraph (D)(5) of rule 3745-40-04 of the Administrative Code was prepared for each beneficial use site on which bulk biosolids was applied 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."~~

~~(g) A description of how the requirements to obtain information in paragraph (D)(5) of rule 3745-40-04 of the Administrative Code are met.~~

~~(h) A copy of the notification given to Ohio environmental protection agency in accordance with paragraph (D)(6) of rule 3745-40-04 of the Administrative Code.~~

~~(i) The following certification statement:~~

~~"I certify, under penalty of law, that the information that will be used to determine compliance with the storage requirements of rule 3745-40-07 of the Administrative Code, the beneficial use requirements of rule 3745-40-08 of the Administrative Code, and the vector attraction~~

~~reduction requirement in [insert either vector attraction reduction option VAR-9 or VAR-10 from paragraph (C) of rule 3745-40-04 of the Administrative Code, if applicable] in rule 3745-40-04 of the Administrative Code, 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."~~

- ~~(j) Records showing that the class B biosolids were not stored for more than ninety days at the beneficial use site, in accordance with table F-1 of rule 3745-40-07 of the Administrative Code.~~
- ~~(k) If applicable, a tile drainage operating procedure developed in accordance with paragraph (D)(4) of rule 3745-40-08 of the Administrative Code and a drag line and mobile storage tank standard operating procedure developed in accordance with paragraph (E)(10) of rule 3745-40-08 of the Administrative Code.~~
- ~~(l) Records showing that the beneficial use requirements in rule 3745-40-08 of the Administrative Code have been met at each beneficial use site including, but not limited to all of the following:~~
 - ~~(i) The soil pH for each beneficial use site.~~
 - ~~(ii) The soil phosphorous levels for each beneficial use site.~~
 - ~~(iii) The agronomic rate calculations for each beneficial use site.~~
 - ~~(iv) If a multi-year phosphate agronomic rate is utilized, the period of time for which the rate was calculated~~
 - ~~(v) Forecast or actual precipitation data in accordance with paragraphs (B)(4) and (B)(5) of rule 3745-40-08 of the Administrative Code.~~
 - ~~(vi) If applicable, the monitoring records for all beneficial use sites with subsurface tile drainage in accordance with paragraph (D)(4) of rule 3745-40-08 of the Administrative Code.~~
 - ~~(vii) The sign placement records for all authorized beneficial use sites in accordance with paragraph (D) of rule 3745-40-11 of the Administrative Code.~~
- ~~(m) A description of how the agronomic rate is met at each beneficial use site including, but not limited to, all of the following:~~

- ~~(i) Nutrient concentrations of the biosolids.~~
- ~~(ii) Soil phosphorus test results.~~
- ~~(iii) Soil types.~~
- ~~(iv) Crop types.~~
- ~~(v) Expected crop yield.~~
- ~~(vi) Crop nitrogen requirements.~~
- ~~(vii) All sources of nitrogen and phosphate such as commercial fertilizer or manure in addition to biosolids.~~
- ~~(viii) Phosphorus index calculations, if applicable.~~
- ~~(ix) How beneficial use application equipment is calibrated.~~

~~[Comment: An agronomic rate calculation worksheet with instructions is _____ available _____ at: <http://epa.ohio.gov/dsw/sludge/biosolid.aspx#137944357> compliance tools. The instructions include available references to determine soil types, crop yields, and phosphorus index guidance.]~~

~~(n) If applicable, a narrative description of how the vector attraction reduction requirements in either paragraph (C)(9) or (C)(10) of rule 3745-40-04 of the Administrative Code are met at each site. At a minimum, this description shall include both of the following:~~

~~(i) If VAR-9 is being performed in accordance with paragraph (C)(9) of rule 3745-40-04 of the Administrative Code, a description of both of the following:~~

~~(a) The equipment utilized to inject the biosolids.~~

~~(b) How the beneficial user ensures that there is not a significant amount of the biosolids present on the surface of the authorized beneficial use site.~~

~~(ii) If VAR-10 is being performed in accordance with paragraph (C)(10) of rule 3745-40-04 of the Administrative Code, a description of all of the following:~~

~~(a) The date and time the sewage sludge was delivered to the authorized beneficial use site.~~

- ~~(b) The date and time class B biosolids were incorporated into the soil of the authorized beneficial use site.~~
- ~~(c) The equipment utilized to incorporate the biosolids.~~
- ~~(d) How the beneficial user ensures that the biosolids are mixed with soil to a minimum depth of four inches or greater on the authorized beneficial use site.~~
- ~~(e) A copy of the information provided to the beneficial use site operator in accordance with paragraph (B) of rule 3745-40-05 of the Administrative Code.~~
- ~~(7) The beneficial user of class B or bulk exceptional quality biosolids. The beneficial user of class B or bulk exceptional quality biosolids shall develop and maintain all of the following information at the beneficial use site during the period class B or bulk exceptional quality biosolids are beneficially used:~~
 - ~~(a) The name of the permittee who generates the class B or bulk exceptional quality biosolids being beneficially used at the beneficial use site.~~
 - ~~(b) A site map of the beneficial use site that, at a minimum, depicts the area where beneficial use is to occur.~~
 - ~~(c) The agronomic rate of class B or bulk exceptional quality biosolids calculated for the beneficial use site.~~
 - ~~(d) The applicable isolation distances for the beneficial use of class B or bulk exceptional quality biosolids that shall be satisfied at the beneficial use site.~~
- ~~(D)~~(E) Annual reporting requirements. A permittee shall submit an annual sewage sludge or biosolids report to the director or an authorized representative. The annual sewage sludge or biosolids report ~~shall~~ is to include, but not be limited to, both of the following:
 - (1) The information requested in the Ohio ~~environmental protection agency~~ EPA annual sewage sludge report, including copies of all signed ~~certification~~ statements ~~required~~ listed in paragraph ~~(E)~~ of this rule ~~3745-40-09 of the Administrative Code.~~

[Comment: The Ohio ~~environmental protection agency~~ EPA annual sewage sludge report ~~shall~~ is to be submitted through the Ohio EPA ebusiness center, division of surface water NPDES permit applications service.]

(2) Any records, ~~as~~ required in accordance with ~~rules 3745-40-04 and 3745-40-08~~ [this chapter](#) of the Administrative Code including, but not limited to, all of the following:

(a) Pathogen reduction alternative records.

(b) Vector attraction reduction alternative records.

(c) ~~Metals, nutrients, foreign/inert method sampling~~ [Analytical](#) results.

(d) Cumulative pollutant loading rate records, if applicable.

(e) Agronomic rate calculations.

(f) If a multi-year phosphate agronomic rate is utilized, the period of time for which the rate was calculated.

[\(g\) Re-certification forms.](#)

~~(g)~~ [\(h\)](#) Summary of complaints [received](#).

~~(h) Standard operating procedures for all of the following:~~

~~(i) Pathogen reduction alternative sampling.~~

~~(ii) Vector attraction reduction alternative sampling.~~

~~(iii) Beneficial use at beneficial use sites with tile drainage.~~

~~(iv) Use of drag hose application systems at beneficial use sites.~~

~~(v) Use of mobile storage tanks at beneficial use sites.~~