



## Ohio Administrative Code

### Rule 3745-40-09 Approved sampling methods, monitoring frequency requirements, record retention and annual reporting requirements.

Effective: March 1, 2026

[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 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.

Table A-1. Approved methods for analysis.

Pollutant	Methods Source	Methods Number
Enteric viruses	Standard Practice for Recovery of Viruses from Wastewater Sludges.	ASTM D4994-89
Fecal coliform	Standard Methods for the Examination of Water and Wastewater.	Part 9221 E
Part 9222 D	40 CRF Part 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants.	EPA Method 1680
EPA Method 1681	Helminth ova	Occurrence of Pathogens in Distribution and Marketing Municipal Sludges.
Yanko, 1987	Salmonella sp. bacteria	Standard Methods for the Examination of Water and Wastewater.
Part 9260D	Detection and enumeration of Salmonella and Pseudomonas aeruginosa.	Kenner and Clark, 1974
40 CRF Part 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants.	EPA method 1682	Specific oxygen uptake rate
Standard Methods for the Examination of Water and Wastewater.	Part 2710 B	Total, fixed, and volatile solids



Standard Methods for the Examination of Water and Wastewater.	Part 2540 G	Inorganic pollutants
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846).	SW-846 6010D	SW-846 7061A
SW-846 7000B	SW-846 7470A	SW-846 7471B

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

(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.

(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 and the total amount transferred to each receiving NPDES permitted treatment works.

(4) Pathogen reduction. Monitoring shall occur for pathogen reduction prior to beneficial use.

(a) Perform monitoring for pathogen reduction 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 in a landfill, through incineration or by transfer to another NPDES permitted treatment works.

(5) Vector attraction. Monitoring shall occur for vector attraction reduction prior to beneficial use except as provided in paragraph (B)(5)(b) of this rule.

(a) Perform monitoring for vector attraction reduction 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 necessary when vector attraction reduction options VAR-9 or VAR-10, in accordance with rule 3745-40-04 of the Administrative Code, are utilized.

(6) Metals and nutrients.

(a) Monitor for the following listed parameters 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 permit 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:

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

(ii) 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.

Amount of sewage sludge generated (dry U.S. tons per calendar year)	Minimum frequency of monitoring
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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

(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 sampling 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)(5) 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 requirements 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.

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



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

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

(b) The following signed statement:

"I certify, under penalty of law, that the information that was used to determine compliance with the class B pathogen reduction [insert one of the pathogen reduction alternatives of rule 3745-40-04 of the Administrative Code] of rule 3745-40-04 of the Administrative Code, the vector attraction reduction requirement [insert one of the vector attraction reduction options of rule 3745-40-04 of the Administrative Code] 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) 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 paragraph (A) of rule 3745-40-05 of the Administrative Code and copies of beneficial user notice and necessary information in accordance with paragraph (B) of rule 3745-40-05 of the Administrative Code.

(d) 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 maintained in accordance with paragraph (D)(4) of this rule.

(2) The permittee that generates exceptional quality biosolids. In addition to the recordkeeping requirements in rule 3745-40-04 of the Administrative Code, the permittee who generates exceptional quality biosolids for the purpose of beneficial use or distribution shall develop the



following information, retain it for a minimum of five years at the treatment works, and make 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.

(b) The following signed statement:

"I certify, under penalty of law, that the information that was used to determine compliance with pathogen reduction requirements [insert one of the pathogen reduction alternatives in paragraphs (B)(8) to (B)(16)] of rule 3745-40-04 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 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) Copies of the notice and necessary information that were provided to each initial recipient of the exceptional quality biosolids.

(d) Copies of the applicable information maintained in accordance with paragraph (D)(3) or (D)(4) of this rule.

(3) The distributor of exceptional quality biosolids. The distributor of exceptional quality biosolids shall develop the following information, retain it for a minimum of five years at the treatment works, and make it all available to the director or an authorized representative upon request:

(a) A copy of the notice and necessary information that was provided by the 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 for beneficial use or a copy of the label affixed to the container in accordance with paragraph (C) of rule 3745-40-05 of the Administrative Code.



(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 biosolids subject to cumulative pollutant loading rates shall develop the following information, retain it for a minimum of five years, and make 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."

(ii) Class B 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 the vector attraction reduction requirement [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 of the dates that class B or bulk exceptional quality biosolids were stored during each calendar year at any beneficial use site or contiguous beneficial use site, and that the class B or bulk exceptional quality biosolids were stored in accordance with paragraph (C) of rule 3745-40-07 of the Administrative Code, including, as applicable, the results of the inspection(s) performed when biosolids are stored for more than one hundred twenty days.

(c) Records showing 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 agronomic rate calculations for each beneficial use site.

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

(iv) Weather forecast data in accordance with paragraph (B)(5) of rule 3745-40-08 of the Administrative Code.

(v) The sign placement records for all authorized beneficial use sites in accordance with paragraphs (B) and (C) 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.



(d) The name of the permittee who generates the class B or bulk exceptional quality biosolids being beneficially used at each beneficial use site.

(e) 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.

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

(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 the equipment utilized to inject the biosolids and how the beneficial user ensures there is not a significant amount of the biosolids present on the surface of the 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, 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.

(i) Copies of the notice and necessary information received from the permittee of class B or bulk exceptional quality biosolids in accordance with paragraph (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.

(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 is to include, but not be limited to, both of the following:

(1) The information requested in the Ohio EPA annual sewage sludge report, including copies of all



signed statements listed in paragraph (D) of this rule.

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

(2) Any records required in accordance with this chapter of the Administrative Code including, but not limited to, all of the following:

(a) Pathogen reduction records.

(b) Vector attraction reduction records.

(c) Analytical results.

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

(e) Field storage records, if applicable.

(f) Agronomic rate calculations.

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

(h) Re-certification forms.

(i) Summary of complaints received.