



Sludge PTI/Plan Approval Addendum

I. Instructions

As provided by Ohio Administrative Code (OAC) Rule 3745-40-03(B), “no person shall engage in the disposal, use, storage, or treatment of sewage sludge for which requirements are established in this chapter (OAC Chapter 3745-40), except pursuant to a valid Ohio NPDES permit or under an approved sewage sludge management plan...”. When Ohio receives delegation from US EPA for the federal sewage sludge program, the sewage sludge management plans will be combined with Ohio NPDES permits and one permit will be issued to applicants. In the interim, permittees that need an approved sewage sludge management plan shall apply for said approval using this Addendum, Permit-to-Install/ Plan Approval Application Forms A and B9, and any required supporting documentation. This Addendum is intended to provide the Ohio EPA with enough information for a review for the sludge management plan approval required by OAC Rule 3745-42-02(A).

Section A. Sewage sludge disposal, use, storage, and/or treatment alternative(s).

Typically a permittee will utilize one primary alternative to manage sewage sludge, and this primary alternative should be indicated in the appropriate box. Some permittees, especially larger municipalities, may utilize more than one primary means of managing sewage sludge. In those cases, all of the alternatives utilized by the permittee to manage sewage sludge should be provided. Permittees which utilize land application as the primary means of sewage sludge management are encouraged to include disposal in a sanitary landfill and/or transfer of sewage sludge to another facility as back-up alternatives.

Section B. Pathogen reduction alternative (applies to land application programs only).

A permittee will usually utilize one primary alternative to manage pathogen reduction for their sewage sludge land application program. The primary pathogen reduction alternative should be identified in the first column of the table. If more than one pathogen reduction alternative is utilized, identify secondary alternatives in the second column. Descriptions of the pathogen reduction alternatives are noted below:

- ! Class A, Alternative 1 - Time and temperature regime as described in OAC Rule 3745-40-05(N)(1).
- ! Class A, Alternative 2 - High pH/high temperature process as described in OAC Rule 3745-40-05(N)(2).
- ! Class A, Alternative 3 - Other processes (reduction of enteric viruses and viable helminth ova) as described in OAC Rule 3745-40-05(N)(3).
- ! Class A, Alternative 4 - Unknown processes (reduction of enteric viruses and viable helminth ova) as described in OAC Rule 3745-40-05(N)(4).
- ! Class A, Alternative 5 - Processes to Further Reduce Pathogens as described in OAC Rule 3745-40-05(N)(5).
 - " Composting
 - " Heat drying (pelletizing)
 - " Heat treatment
 - " Thermophilic aerobic digestion
 - " Beta ray irradiation
 - " Gamma ray irradiation
 - " Pasteurization
- ! Class A, Alternative 6 - Processes equivalent to a PFRP as described in OAC Rule 3745-40-05(N)(6).



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- ! Class B, Alternative 1 - Fecal coliform geometric mean of seven samples less than 2,000,000 MPN/g or 2,000,000 CFU/g as described in OAC Rule 3745-40-05(O)(1).
- ! Class B, Alternative 2 - Processes to Significantly Reduce Pathogens as described in OAC Rule 3745-40-05(O)(2).
 - " Aerobic digestion
 - " Air drying
 - " Anaerobic digestion
 - " Composting
 - " Lime treatment
- ! Class B, Alternative 3 - Processes equivalent to a PSRP as described in OAC Rule 3745-40-05(O)(3).

Section C. Vector attraction reduction option (applies to land application programs only).

Typically a permittee will utilize one primary alternative to reduce vector attractiveness for their sewage sludge land application program. The primary vector attraction reduction option should be identified in the first column of the table. If more than one vector attraction reduction option is utilized, secondary options are to be placed in the second column. Descriptions of the vector attraction reduction options are noted below:

- ! VAR Option 1 - 38% reduction in volatile solids as described in OAC Rule 3745-40-05(Q)(1).
- ! VAR Option 2 - bench scale anaerobic digestion demonstration as described in OAC Rule 3745-40-05(Q)(2).
- ! VAR Option 3 - bench scale aerobic digestion demonstration as described in OAC Rule 3745-40-05(Q)(3).
- ! VAR Option 4 - specific oxygen uptake rate for aerobically digested sludge less than or equal to 1.5 mg oxygen per hour per gram total solids as described in OAC Rule 3745-40-05(Q)(4).
- ! VAR Option 5 - treat in an aerobic process for 14 days as described in OAC Rule 3745-40-05(Q)(5).
- ! VAR Option 6 - high pH treatment as described in OAC Rule 3745-40-05(Q)(6).
- ! VAR Option 7 - drying as described in OAC Rule 3745-40-05(Q)(7).
- ! VAR Option 8 - drying as described in OAC Rule 3745-40-05(Q)(8).
- ! VAR Option 9 - injection as described in OAC Rule 3745-40-05(Q)(9).
- ! VAR Option 10 - immediate incorporation as described in OAC Rule 3745-40-05(Q)(10).

Section D. Pollutant information (applies to land application programs only).

For existing land application programs, include a summary of the last three years of sewage sludge total metals pollutant monitoring data. For proposed new programs, include a summary of total metals pollutant monitoring data from three composite samples of sewage sludge.

Section E. Dry tons of sewage sludge generated in the last calendar year.

Monitoring frequency for sewage sludge parameters is based on the dry tons of sewage sludge including admixtures such as lime or organic matter. Report the dry tons of sewage sludge, including admixtures, for the various use or disposal activities, for the last calendar year.



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II. Further instructions.

- A. This Addendum must be submitted with Permit-to-Install/Plan Approval Application Forms A and B9. Follow the instructions provided with those forms and include a check, made payable to the "Treasurer, State of Ohio", in the amount of \$200.00, to cover the Application Fee and the Plan Review Fee.

- B. Attach a narrative description of the solids handling processes of the wastewater treatment plant. For example if Class B, Alternative 2 process to significantly reduce Pathogens 3, anaerobic digestion is identified in Section B of this application as the primary pathogen reduction alternative, the narrative account should describe the following:
 - 1. Digester volume(s) and dimension(s)
 - 2. Primary sludge, secondary sludge, or a combination
 - 3. Type of cover
 - 4. Hydraulic retention time
 - 5. Digester heating mechanism
 - 6. Digester mixing mechanism
 - 7. Time and temperature record keeping methodology

- C. The "Sludge Site Authorization Packet for Non-EQ Sewage Sludge" is attached. Follow the instructions in this packet when proposing sites for the land application of non-exceptional quality sewage sludge (exceptional quality is defined in OAC Chapter 3745-40).



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III. Form

Facility Name:	Date:
Ohio EPA NPDES Permit #:	
Facility Mailing Address:	
City, State, Zip Code:	
Facility Location Address:	
City, State, Zip Code:	

This application is for sewage sludge management in the following counties of Ohio (check STATEWIDE if the application is for statewide marketing and distribution):

A. Sewage sludge disposal, use, storage, and/or treatment alternative(s). Indicate all disposal, use, storage, and/or treatment alternatives employed, and all disposal, use, storage, and/or treatment alternatives the applicant would like to maintain as options.

<input type="checkbox"/>	Land application of non-exceptional quality sewage sludge.
<input type="checkbox"/>	Land application of exceptional quality sewage sludge.
<input type="checkbox"/>	Lagoon treatment/storage of sewage sludge.
<input type="checkbox"/>	Incineration of sewage sludge.
<input type="checkbox"/>	Landfill sewage sludge in a sanitary landfill.
<input type="checkbox"/>	Transfer sewage sludge to another facility for treatment and/or disposal.
<input type="checkbox"/>	Other disposal, use, storage, or treatment of sewage sludge. Provide a narrative description.



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Facility Name:
Ohio EPA NPDES Permit #:

B. Pathogen reduction alternative. Indicate primary option and secondary option(s) that are utilized.

Primary Pathogen Reduction Alternative	Secondary Pathogen Reduction Alternative(s)
Class A, Alternative 1	Class A, Alternative 1
Class A, Alternative 2	Class A, Alternative 2
Class A, Alternative 3	Class A, Alternative 3
Class A, Alternative 4	Class A, Alternative 4
Class A, Alternative 5, PFRP 1	Class A, Alternative 5, PFRP 1
Class A, Alternative 5, PFRP 2	Class A, Alternative 5, PFRP 2
Class A, Alternative 5, PFRP 3	Class A, Alternative 5, PFRP 3
Class A, Alternative 5, PFRP 4	Class A, Alternative 5, PFRP 4
Class A, Alternative 5, PFRP 5	Class A, Alternative 5, PFRP 5
Class A, Alternative 5, PFRP 6	Class A, Alternative 5, PFRP 6
Class A, Alternative 5, PFRP 7	Class A, Alternative 5, PFRP 7
Class A, Alternative 6	Class A, Alternative 6
Class B, Alternative 1	Class B, Alternative 1
Class B, Alternative 2, PSRP 1	Class B, Alternative 2, PSRP 1
Class B, Alternative 2, PSRP 2	Class B, Alternative 2, PSRP 2
Class B, Alternative 2, PSRP 3	Class B, Alternative 2, PSRP 3
Class B, Alternative 2, PSRP 4	Class B, Alternative 2, PSRP 4
Class B, Alternative 2, PSRP 5	Class B, Alternative 2, PSRP 5
Class B, Alternative 3	Class B, Alternative 3

C. Vector attraction reduction option. Indicate primary option and secondary option(s) that are utilized.

Primary Vector Attraction Reduction Option	Secondary Vector Attraction Reduction Option(s)
VAR option 1, 38% reduction in volatile solids	VAR option 1, 38% reduction in volatile solids
VAR option 2, additional anaerobic digestion	VAR option 2, additional anaerobic digestion
VAR option 3, additional aerobic digestion	VAR option 3, additional aerobic digestion
VAR option 4, specific oxygen uptake rate	VAR option 4, specific oxygen uptake rate
VAR option 5, extended aerobic process	VAR option 5, extended aerobic process
VAR option 6, high pH	VAR option 6, high pH
VAR option 7, per cent solids >= 75	VAR option 7, per cent solids >= 75
VAR option 8, per cent solids >= 90	VAR option 8, per cent solids >= 90
VAR option 9, injection	VAR option 9, injection
VAR option 10, immediate incorporation	VAR option 10, immediate incorporation



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Facility Name:
Ohio EPA NPDES Permit #:

D. Pollutant Information. Using the table below, provide data on the pollutant concentrations in sewage sludge generated by your facility.

Pollutant	MOR Code	Number of analyses	Average concentration (mg/kg)	Maximum concentration (mg/kg)	Minimum Concentration (mg/kg)
Arsenic	01003				
Beryllium	01013				
Cadmium	01028				
Copper	01043				
Chromium	01029				
Lead	01052				
Mercury	71921				
Molybdenum	78465				
Nickel	01068				
Selenium	01148				
Zinc	01093				

E. Dry tons of sewage sludge generated in the last calendar year. Report data using the table below.

Disposal, use, storage, and/or treatment alternative	Dry Tons
Land application of non-exceptional quality sewage sludge, including admixtures	
Land application of exceptional quality sewage sludge, including admixtures	
Lagoon treatment/storage of sewage sludge	
Incineration of sewage sludge	
Landfill disposal of sewage sludge in a sanitary landfill	
Transfer sewage sludge to another facility for treatment and/or disposal.	
Other disposal, use, storage, or treatment of sewage sludge.	