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Domestic Septage Disposal in Ohio

The United States Environmental Protection Agency (U. S. EPA), Ohio Department of Health (ODH), local health districts (LHD) and the Ohio EPA regulate domestic septage disposal in Ohio. This fact sheet is intended to provide stakeholders and regulators with an overview of applicable regulatory authority in Ohio. The goal is to help achieve regulatory compliance and clarify regulatory oversight.

Definitions

“Domestic septage” means either liquid or solid material removed from a septic tank, cesspool, portable toilet, type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from a grease trap at a restaurant (source: rule 3745-40-01 of the Ohio Administrative Code).

Commercial and industrial septage are not considered domestic septage. The factor that differentiates commercial and industrial septage from domestic septage is not the type of establishment generating the waste, rather it is the type of waste being produced.

As described previously, grease trap wastes from a restaurant are not domestic septage, but the sanitation waste residues and residues from food and normal dish cleaning from a restaurant are considered domestic septage. Likewise, only sanitation waste residues from a gasoline station are domestic septage, while wastes containing petroleum are classified as non-domestic septage.

Still another example is septage from a motel or nursing home which is considered domestic septage, provided it does not include any grease trap wastes. Dry cleaning waste residues are commercial septage, while sanitation-only waste from such an establishment would be considered domestic septage.

“Sewage tank cleaner” means any person who engages in the collection, transportation, and disposal of the contents of sewage tanks, or privies (source: rule 3701-29-01 of the Ohio Administrative Code).

“Sewage tank” means any watertight tank designed to retain sewage and includes, but is not limited to, septic tanks and aerobic type treatment tanks (source: rule 3701-29-01 of the Ohio Administrative Code).

“Sewage” means any liquid waste containing sludge, sludge materials, or animal or vegetable matter in suspension or solution, and may include household wastes as commonly discharged from

residences and wastes discharged from commercial, institutional, or similar facilities (source: rule 3745-40-01 of the Ohio Administrative Code).

What regulations pertain to domestic septage disposal in Ohio?

1) Title 40 of the Code of Federal Regulations, Part 503 (503), establishes minimum requirements for land application of domestic septage in Ohio. Domestic septage language in 503 is included as the appendix to this fact sheet. Contact the appropriate LHD to determine if further domestic septage land application requirements have been adopted in a particular county.

2) Chapter 3701-29 of the Ohio Administrative Code provides LHD the authority to regulate the registration of sewage tank cleaners. Contact the appropriate LHD for information on local ordinances.

3) Chapter 6111. of the Ohio Revised Code provides the director of Ohio EPA broad authority to regulate disposal of waste in the state of Ohio. Refer to the following Web sites for more information.

http://www.odh.state.oh.us/Directory/LHD/LHD_LIST.HTM

<http://www.odh.state.oh.us/>

<http://www.epa.state.oh.us/>



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Who regulates septage haulers?

ODH and LHD regulate “sewage tank cleaners” under rule 3701-29-06 of the Ohio Administrative Code. The rule requires each person who performs the services of a sewage tank cleaner to hold a valid registration issued by the local health district.

For more information on hauling services, refer to the Ohio Waste Haulers Association Web site:

<http://www.nawt.org/states.html>

What are the options for domestic septage use or disposal in Ohio?

There are three primary options for the use or disposal of domestic septage in Ohio. All options are regulated by either ODH/LHD or Ohio EPA (and for land application, U. S. EPA). Contact ODH/LHD or Ohio EPA prior to engaging in other means of domestic septage use or disposal;

1) Domestic septage may be hauled to another facility for disposal. The facility may be a publicly owned treatment works (POTW) or a privately owned and operated waste disposal facility. In either case, the facility must be contacted to determine if they are willing or able to receive domestic septage.

Any domestic septage hauled to a POTW or to a privately operated facility that also accepts sewage sludge no longer falls under the guidelines in this fact sheet. When domestic septage is co-mingled with sewage sludge, the resulting material is regulated as sewage sludge by Ohio EPA under Chapter 3745-40 of the Ohio Administrative Code.

2) Domestic septage may be disposed in a sanitary landfill facility. Material disposed in a landfill must be dewatered.

Contact the landfill prior to any disposal for other requirements.

3) Domestic septage may be applied to the land for agronomic benefit.

What are the domestic septage land application requirements?

National minimum standards for the land application of domestic septage were defined in 1993 as part of the federal 503 regulations (503). Septage with any industrial wastewater component cannot be land applied under 503. A separate permit from Ohio EPA must be obtained before septage with an industrial wastewater component can be applied to the land. Contact the appropriate Ohio EPA district office for more information.

The sections of 503 pertaining to the land application of domestic septage are included in the appendix of this fact sheet.

What regulatory authority should investigate a complaint?

Land application of domestic septage may generate complaints. These complaints must be addressed by the proper regulatory authority. The regulatory authorities are ODH/LHD, Ohio EPA, and potentially the U. S. EPA Region 5 office in Chicago, Illinois. ODH/LHD and Ohio EPA reached an agreement in 1984 to provide statewide consistency in addressing complaints. The procedure to address complaints is paraphrased below:

1) Public nuisance or health related complaints should be directed to the LHD.

2) If the LHD is unable to address a public nuisance or health related complaint, they should notify ODH central office.

3) Water quality related complaints should be directed to the appropriate Ohio EPA district office.

4) If the agency contacted believes that more than one agency should be involved, or if the nature of the complaint is unknown, a joint inspection should be scheduled to include the LHD and Ohio EPA. If follow-up action by ODH is required, a field inspection should be performed jointly by ODH/LHD and the Ohio EPA.

U. S. EPA's Region 5 office responds to complaints received about a hauler's domestic septage land application program. In a typical investigation, U. S. EPA Region 5 requests copies of the domestic septage land application records the hauler is required to maintain under 503. U. S. EPA Region 5 typically bases any action they take on the completeness of those required records. Contact information for U. S. EPA's Region 5 office may be found on the following Internet site: <http://www.epa.gov/Region5/>

Other sources of information.

The National Small Flows Clearinghouse maintains an Internet site at:

<http://www.nesc.wvu.edu/nsfc/>

Another source of information is The Ohio State University Extension Web site. Look under “Environment” at:

<http://ohioline.osu.edu/>

Also, look under “Soil Environment Technology Learning Lab” at: <http://www.ag.ohio-state.edu/~setll/>

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Appendix: Sections of 503 that pertain to the land application of domestic septage.

Sec. 503.12 General requirements.

(c) No person shall apply domestic septage to agricultural land, forest, or a reclamation site during a 365 day period if the annual application rate in Sec. 503.13(c) has been reached during that period.

Sec. 503.13 Pollutant limits.

(c) Domestic septage.

The annual application rate for domestic septage applied to agricultural land, forest, or a reclamation site shall not exceed the annual application rate calculated using the following equation:

$$\text{AAR} = \frac{N}{0.0026}$$

AAR = Annual application rate in gallons per acre per 365 day period.

N = Amount of nitrogen in pounds per acre per 365 day period needed by the crop or vegetation grown on the land.

Sec. 503.15 Operational standards - pathogens and vector attraction reduction.

(b) Pathogens - domestic septage. The requirements in either Sec. 503.32 (c)(1) or (c)(2) shall be met when domestic septage is applied to agricultural land, forest, or a reclamation site.

(d) Vector attraction reduction - domestic septage. The vector attraction reduction requirements in Sec. 503.33(b)(9), (b)(10), or (b)(12) shall be met when domestic septage is applied to agricultural land, forest, or a reclamation site.

Sec. 503.16 Frequency of monitoring.

(b) Domestic septage. If either the pathogen requirements in Sec. 503.32(c)(2) or the vector attraction reduction requirements in Sec. 503.33(b)(12) are met when domestic septage is applied to agricultural land, forest, or a reclamation site, each container of domestic septage applied to the land shall be monitored for compliance with those requirements.

Sec. 503.17 Record keeping.

(b) Domestic septage. When domestic septage is applied to agricultural land, forest, or a reclamation site, the person who applies the domestic septage shall develop the following information and shall retain the information for five years:

(1) The location, by either street address or latitude and longitude, of each site on which domestic septage is applied.

(2) The number of acres in each site on which domestic septage is applied.

(3) The date domestic septage is applied to each site.

(4) The nitrogen requirement for the crop or vegetation grown on each site during a 365 day period.

(5) The rate, in gallons per acre per 365 day period, at which domestic septage is applied to each site.

(6) The following certification statement:

I certify, under penalty of law, that the information that will be used to determine compliance with the pathogen requirements (insert either Sec. 503.32(c)(1) or Sec. 503.32(c)(2)) and the vector attraction reduction requirement in [insert Sec. 503.33(b)(9), 503.33(b)(10), or Sec. 503.33(b)(12)] 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.

(7) A description of how the pathogen requirements in either Sec. 503.32(c)(1) or (c)(2) are met.

(8) A description of how the vector attraction reduction requirements in Sec. 503.33 (b)(9), (b)(10), or (b)(12) are met.

Sec. 503.30 Scope.

(c) This subpart contains the pathogen requirements for domestic septage applied to agricultural land, forest, or a reclamation site.

Sec. 503.32 Pathogens.

(b)(5)(i) Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge.

(ii) Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for four months or longer prior to incorporation into the soil.

(iii) Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than four months prior to incorporation into the soil.

(iv) Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge.

(v) Animals shall not be grazed on the land for 30 days after application of sewage sludge.

(vi) Turf grown on land where sewage sludge is applied shall not be harvested for one year after application of the sewage sludge 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.

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(vii) Public access to land with a high potential for public exposure shall be restricted for one year after application of sewage sludge.

(viii) Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.

(c) Domestic septage.

(1) The site restrictions in Sec. 503.32(b)(5) shall be met when domestic septage is applied to agricultural land, forest, or a reclamation site; or

(2) The pH of domestic septage applied to agricultural land, forest, or a reclamation site shall be raised to 12 or higher by alkali addition and, without the addition of more alkali, shall remain at 12 or higher for 30 minutes and the site restrictions in Sec. 503.32 (b)(5)(i) through (b)(5)(iv) shall be met.

Sec. 503.33 Vector attraction reduction.

(a)(5) One of the vector attraction reduction requirements in Sec. 503.33 (b)(9), (b)(10), or (b)(12) shall be met when domestic septage is applied to agricultural land, forest, or a reclamation site.

(b)(9)(i) Sewage sludge shall be injected below the surface of the land.

(ii) No significant amount of the sewage sludge shall be present on the land surface within one hour after the sewage sludge is injected.

(iii) When the sewage sludge that is injected below the surface of the land is Class A with respect to pathogens, the sewage sludge shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.

(b)(10)(i) Sewage sludge applied to the land surface or placed on an active sewage sludge unit shall be incorporated into the soil within six hours after application to or placement on the land, unless otherwise specified by the permitting authority.

(ii) When sewage sludge that is incorporated into the soil is Class A with respect to pathogens, the sewage sludge shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.

(b)(12) The pH of domestic septage shall be raised to 12 or higher by alkali addition and, without the addition of more alkali, shall remain at 12 or higher for 30 minutes.