

# **Kentucky Domestic Septage Disposal Site Operation Regulation**

**902 KAR 10:160**

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**902 KAR 10:160. Domestic septage disposal site operation.**

RELATES TO: KRS 211.970 to 211.982

STATUTORY AUTHORITY: KRS Chapter 13B, 211.980, 211.090, EO 96-862

NECESSITY, FUNCTION, AND CONFORMITY: KRS 211.970 to 211.982 direct the Cabinet for Health Services to promulgate administrative regulations relating to conduct of business; approval of domestic septage treatment and disposal methods; approval of domestic septage treatment, land application, and surface disposal sites; inspection and administrative enforcement procedures; and any other matters deemed necessary to protect public health and the environment. This administrative regulation sets forth the procedures for complying with KRS 211.970 to 211.982. Executive Order 96-862, effective July 2, 1996, reorganizes the Cabinet for Human Resources and places the Department for Public Health and its programs under the Cabinet for Health Services.

**Section 1. Definitions.**

In addition to the definitions given in KRS 211.970, as used in this administrative regulation, the following terms shall have the meanings set forth below:

(1) "Certified inspector" means a specific individual who has met the requirements for certification contained in KRS 211.360.

(2) "Deep incorporation" means land application by subsurface injection, trench disposal, or a furrow-placement-cover operation.

(3) "Domestic septage" means 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 shall not include:

(a) Liquid or solid material removed from a septic tank;

(b) Cesspool;

(c) Similar treatment works that receives commercial wastewater processes or individual wastewater processes; or

(d) Grease removed from a grease trap at a restaurant or similar grease producing business.

(4) "Grease" is defined pursuant to KRS 211.970(3) and shall not apply to mineral-based oils or greases.

(5) "Land application" means the spraying or spreading of domestic septage onto the land surface; the injection of domestic septage below the land surface; or the incorporation of domestic septage into the soil.

(6) "Operator" means a person owning, operating, or controlling a septic tank domestic septage servicing business or a person operating or owning a domestic septage disposal, treatment, or recycling site, including their employees or agents.

(7) "Shallow incorporation" means land application by surface spreading followed by plowing, disking, or harrowing.

**Section 2. Application for Permit to Operate.**

(1) No person shall construct or operate a site for domestic septage disposal or domestic septage mixed with grease at a ratio of three (3) parts domestic septage to one (1) part grease without having first obtained a permit from the cabinet. Nothing in this administrative regulation shall require a farm owner to be permitted

as a disposal site if that farm receives less than 2,000 gallons of domestic septage per year. However, the farm shall be registered with the local health department and the disposal of domestic septage on the farm shall not contaminate the groundwater or surface water or create a public health nuisance.

(2) Form DFS-200, "Application for Permit to Operate" (8/88), shall be submitted to the local health department for the initial application. Form DFS-233 (10/87) "Application for Permit" shall be submitted to the local health department annually for permit renewal. Form DFS-234 (12/92) "Permit to Operate" shall be posted in a conspicuous place at the disposal site. Forms DFS-200, "Application for Permit to Operate"; DFS-233, "Application for Permit"; and DFS-234 (12/92), "Permit to Operate" are incorporated by reference and may be viewed or obtained at the Office of the Commissioner for Health Services, 275 East Main Street, Frankfort, Kentucky 40621, between the hours of 8 a.m. and 4:30 p.m., Monday through Friday.

(3) The following documents shall accompany the application:

(a) A plat or recording in the local county clerk's office, an original and current 7.5 minute U.S. Geological Survey Quadrangle topographical map with proposed site boundaries clearly marked, or dimensioned site plan showing:

1. Number of acres and site boundaries;
2. Structures and other facilities;
3. Approved disposal area;
4. Setback distances of features on and adjacent to the site;
5. North and prevailing wind direction; and
6. Access roads and other features outside of the boundaries of the site.

(b) Proposed operations plan including:

1. Methods and equipment for application or storage;
2. Land usage and the nitrogen requirement for the crop or vegetation;
3. Application rate;
4. Pathogen reduction and vector control plan; and
5. Certification statement submitted with the permit application stating: "I certify, under penalty of law, that pathogen reduction and the vector attraction reduction requirements have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the requirements have been met."

(4) A permit to operate shall be issued after the applicant meets the requirements of this administrative regulation.

(5) The permit shall expire March 1 of each year.

### **Section 3. Permit and Inspection Fees.**

(1) An annual permit fee of \$150 is assessed for each permitted site to cover the costs of reviewing documentation and conducting inspections by the local health department.

(2) Fees shall be made payable to the local health department.

#### **Section 4. Business Requirements.**

(1) The operator of a domestic septage disposal site shall:

- (a) Refuse to accept any type of waste for which the site is not approved.
- (b) Maintain the site, facilities, and equipment in a safe and sanitary condition.
- (c) Direct and manage the unloading and application of domestic septage to the site during the hours of operation.
- (d) Notify service vehicle operators if the site is closed during normal working hours.
- (e) Notify the local health department immediately of any person who discharges prohibited waste.
- (f) Submit a written closure plan to the local health department prior to thirty (30) days of closure.

(2) The owner of a disposal site shall:

- (a) Provide written notification to the subsequent owner prior to the sale that the land was used as a domestic septage disposal site.
- (b) Maintain a list of the vehicle license numbers, disposal method, location, and total number of gallons of domestic septage or domestic septage mixed with grease received, retain these records for five (5) years, and make these records available to the cabinet during normal business hours.

#### **Section 5. Approved Methods of Domestic Septage Disposal.**

(1) Surface application and shallow incorporation.

- (a) Equipment used for surface application shall have a spray bar, splash plate, or other device to evenly distribute the domestic septage while the equipment is in motion. The device shall be designed to direct the contents away from the vehicle and shall be rinsed prior to it leaving the site.
- (b) The domestic septage shall be surface spread uniformly to prevent ponding.
- (c) Domestic septage storage facilities shall be provided during periods of inclement weather.
- (d) The site shall have a well-established and maintained sod covering or approved vegetation unless the domestic septage application is used to establish a vegetative cover in reclamation.
- (e) Sufficient alkali shall be applied to each surface application of domestic septage or domestic septage mixed with grease to raise the pH to twelve (12) for thirty (30) minutes to control odor and vectors, unless previously added.
- (f) Domestic septage on sites using shallow incorporation shall be incorporated into the soil within six (6) hours.
- (g) Incorporation of domestic septage shall follow the contour of the site to minimize erosion and runoff.

(2) Deep incorporation.

- (a) Deep incorporation of domestic septage shall follow the contour of the site to minimize soil erosion and runoff.
- (b) If approved, trenches shall be a maximum of two (2) feet deep and two (2) to ten (10) feet wide. Actual configuration of the width and linear dimensions may be restricted by topography and soil conditions.

1. The excavated soil from the trench or bed shall be placed on the uphill side to control the movement of surface water into the trench or bed.
2. Sufficient alkali shall be spread over each application of domestic septage placed in a trench to control odor and vectors.
3. The trench shall be covered with a minimum of one (1) foot of soil when it reaches its holding capacity and has dewatered sufficiently.
4. Trenching of grease alone is prohibited.

#### **Section 6. Experimental Disposal Methods.**

The following disposal methods shall be considered experimental and, if it is determined that they are likely to have an adverse environmental impact, the cabinet shall submit the application for review by the Natural Resources and Environmental Protection Cabinet:

- (1) Lagoon pretreatment;
- (2) Wetlands pretreatment;
- (3) Lagoon/wetlands;
- (4) In-vessel composting;
- (5) Static pile composting;
- (6) Windrow composting;
- (7) Recycling; and
- (8) Other proposed methods not specified by this administrative regulation.

#### **Section 7. Disposal Restrictions.**

The following restrictions shall apply to all land disposal methods if alkali is not added to the domestic septage:

- (1) Public access to the site shall be restricted for at least twelve (12) months.
- (2) Grazing of animals whose products are consumed by humans shall be prohibited for one (1) month after application.
- (3) If crops for direct human consumption are grown within eighteen (18) months of the last domestic septage application, and the edible portion of the crop is in contact with the domestic septage, any domestic septage applied to the land or incorporated into the soil shall be treated by a process to further reduce pathogens (PFRP) using one (1) the following technologies:
  - (a) Composting. Using the within-vessel composting method or the static aerated pile composting method, the temperature of the domestic septage shall be maintained at 131 degrees Fahrenheit or greater for three (3) days. Using the windrow composting method, the temperature of the domestic septage shall be maintained at 131 degrees Fahrenheit or greater for fifteen (15) days or longer. During the period when the compost is maintained at 131 degrees Fahrenheit or greater, there shall be a minimum of five (5) turnings of the windrow.

- (b) Heat drying. Domestic septage shall be dried by direct or indirect contact with hot gases to reduce the moisture content of the domestic septage to ten (10) percent or lower. The temperature of the domestic septage particles shall exceed 176 degrees Fahrenheit or the wet bulb temperature of the gas in contact with the domestic septage as the domestic septage leaves the dryer shall exceed 176 degrees Fahrenheit.
- (c) Heat treatment. Liquid domestic septage shall be heated to a temperature of 356 degrees Fahrenheit or greater for thirty (30) minutes.
- (d) Thermophilic aerobic digestion. Liquid domestic septage shall be agitated with air or oxygen to maintain aerobic conditions and the mean cell residence time of the domestic septage is ten (10) days at 131 to 140 degrees Fahrenheit.
- (e) Beta ray irradiation. Domestic septage shall be irradiated with beta rays from an accelerator at dosages of at least one (1.0) megarad at room temperature (ca. sixty-eight (68) degrees Fahrenheit).
- (f) Gamma ray irradiation. Domestic septage shall be irradiated with gamma rays from certain isotopes, such as Cobalt 60 and Cesium 137, at room temperature (ca. sixty-eight (68) degrees Fahrenheit).
- (g) Pasteurization. The temperature of the domestic septage shall be maintained at 158 degrees Fahrenheit or greater for thirty (30) minutes or longer.
- (h) Other methods or operating conditions may be acceptable if pathogens are reduced equivalent to any of the above add-on methods.

(4) 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:

Where:

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.

### **Section 8. Domestic Septage Disposal Site Maintenance.**

- (1) Sites shall be maintained to prevent the creation of a public health hazard or degrading conditions to the environment.
- (2) A plot plan shall be posted at the site showing the following information:
  - (a) Division of site by approved application methods; and
  - (b) Number of gallons of domestic septage applied.
- (3) Access roads shall be maintained to minimize dust and rutting.
- (4) Surface application shall not be applied during or immediately after inclement weather or a hard freeze.
- (5) Warning signs, fencing, or barriers may be required to prevent unauthorized entry into the disposal area.

### **Section 9. Existing Domestic Septage Disposal Sites.**

- (1) Domestic septage disposal sites existing prior to the effective date of this administrative regulation may continue to operate if the cabinet determines that the site and disposal methods do not create a health or safety hazard. The determination shall be made after a site evaluation and physical inspection by the

cabinet of the existing site. Results of the determination shall be made in writing to the site owner. The site owner shall obtain a permit to operate using Form DFS-200 as required in Section 2 of this administrative regulation within thirty (30) days of the effective date of this administrative regulation.

(2) Vehicles, tanks, equipment, and facilities in use at the disposal site prior to the effective date of this administrative regulation, which do not meet the design, construction, or material requirements of this administrative regulation, may continue to be used if in good repair and maintained in a safe and sanitary condition. The determination shall be made after a physical inspection by the cabinet of the vehicles, tanks, equipment, and facilities. Results of the determination shall be made in writing to the owner.

(3) Replacement of existing vehicles, tanks, equipment, and facilities shall meet the requirements of this administrative regulation. The owner shall notify the cabinet of any replacement.

#### **Section 10. Inspection Procedures.**

(1) At least one (1) time every calendar year the cabinet shall inspect:

- (a) Vehicles;
- (b) Equipment;
- (c) Domestic septage storage facilities used at the site; and
- (d) The domestic septage disposal site.

(2) The cabinet shall have the right of access to inspect vehicles, equipment, domestic septage storage locations, and the domestic septage disposal sites during normal hours of operation. The right of access at all times shall not be denied in the event of a potential imminent health hazard.

(3) The findings shall be recorded on Form DFS-315, "Inspection Report" (11/92), and a copy of the inspection report shall be provided to the owner or operator. Form DFS-315, "Inspection Report", is incorporated by reference, and may be viewed or obtained at the Office of the Commissioner for Health Services, 275 East Main Street, Frankfort, Kentucky 40621, between the hours of 8 a.m. and 4:30 p.m., Monday through Friday.

(4) If a violation is found, the inspection report shall:

- (a) Set forth the specific violation;
- (b) Set a time period for correcting the violation; and
- (c) State that failure to comply with any notice issued pursuant to KRS 211.970 to 211.982 and this administrative regulation may result in initiation of the enforcement proceedings in Section 11 of this administrative regulation and KRS 211.995.

#### **Section 11. Administrative Enforcement Procedures.**

(1) A permit may be suspended or revoked upon evidence that the operator:

- (a) Knowingly violates the provisions of KRS 211.970 to 211.980 or this administrative regulation;
- (b) Accepts prohibited wastes;
- (c) Practices fraud or deception in applying for a permit;
- (d) Fails to pay required fees;

(e) Is incompetent to operate a domestic septage disposal site; or

(f) Interferes with the cabinet in the performance of its duties.

(2) A hearing shall be provided, after request by the operator, if:

(a) A permit is denied, suspended, or revoked; or

(b) An inspection indicates failure to comply with the requirements of KRS 211.970 to 211.982 or this administrative regulation.

(3) The request for a hearing shall be made in writing on Form DFS-212, "Request for Hearing" (1/91), to the cabinet within ten (10) days after notification by the cabinet of an enforcement proceeding. Form DFS-212, "Request for Hearing", is incorporated by reference and may be viewed or obtained at the Office of the Commissioner for Public Health, 275 East Main Street, Frankfort, Kentucky 40621, between the hours of 8 a.m. and 4:30 p.m., Monday through Friday.

(4) All administrative hearings shall be conducted in accordance with 902 KAR 1:400. Service of process and proof of service shall comply with KRS 211.220.

(5) An injunction may be obtained by the cabinet or local health department if immediate action is necessary to prevent the creation or continuance of a health hazard, damage to the environment, or to compel compliance with KRS 211.970 to 211.982 and this administrative regulation. (21 Ky.R. 810; Am. 1330; eff. 10-19-94; 22 Ky.R. 2399; eff. 8-1-96.)