

Portage County Combined General
Health District

Title Three

Chapter 13

Home Sewage Treatment Regulation

13.01 to 13.20

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13.01 Definitions

As used in this chapter:

- (A) "Alter" means to change by making substantive additions or deletions in location, design or materials of existing household sewage treatment systems.
- (B) "ARCPACS" means the federation of certifying boards in agriculture, biology, earth and environmental sciences.
- (C) "Bedrock, rock and other fragments" means bedrock underlying the soil or exposed at the surface of the ground and rock and other fragments that are discrete particles greater than two millimeters including, but not limited to, gravel, cobbles, flagstones, stones and boulders. For the purposes of this chapter, a limiting condition shall include soils having bedrock, rock or other fragments greater than fifty per cent by volume.
- (D) "Bedroom" means any room within a dwelling that might reasonably be used as a sleeping room including but not limited to rooms designated as a den, office, or study.
- (E) "Board of Health" means the Board of Health of the Portage County Combined General Health District, as authorized by Section 3709.05 of the Revised Code.
- (F) "Building drain" means that part of the lowest horizontal piping of a building drainage system which receives the discharge from soil, waste, and other drainage pipes inside the walls of any building, and conveys such discharge to the building sewer three feet outside the building wall.
- (G) "Building sewer" means that part of the horizontal piping of a drainage system which receives and conveys the discharge from the building drain to the public sanitary sewer, private sanitary sewer, household sewage treatment system, or other points of disposal.

- (H) "Domestic septage" means the liquid or solid material removed from a sewage treatment system, septic tank, portable toilet, or type III marine sanitation device as defined in 33 C.F.R. 159.3 (as published in the July 1, 2005 Code of Federal Regulations) "Domestic septage" does not include grease removed from a grease trap.
- (I) "Dwelling" means any building or place used or intended to be used by human occupants as a single family, two family, or three family residence.
- (J) "Easily accessible" means of such location and design as to permit exposure with the use of only simple tools, such as screwdriver, pliers, openend wrench, or other simple tools supplied by the manufacturer.
- (K) "Filter" means any device or material which separates matter in suspension from a liquid.
- (L) "Ground water" means all water occurring in an aquifer. For the purposes of this chapter, ground water includes but is not limited to an apparent water table.
- (M) "Hardscape" means any constructed surface area on the landscape of a site such as a driveway, parking area, patio, building slab, or other similar surface area.
- (N) "Health Commissioner" means the health commissioner of a city or general health district or his authorized representative.
- (O) "Holding Tank" means an underground, water-tight covered receptacle designed and constructed to receive the discharge of sewage from a building sewer until such time as the discharge is transported to an acceptable disposal site.

- (P) "Household sewage treatment system (HSTS)" means any sewage treatment system or part thereof for a single family, two family, or three family dwelling which receives sewage.
- (Q) "Infiltrative surface" means the contact area where sewage is applied to the soil or sand fill for the purpose of treatment and/or dispersal.
- (R) "In situ soil" means soil that has been naturally deposited or formed in its present location with adequate texture, structure and consistence necessary for treatment and/or dispersal, or in the case of reclaimed or filled areas, has had sufficient time to form the texture, structure and consistence necessary for treatment and/or dispersal.
- (S) "Inspection" means the on-site evaluation or analysis of the functioning of a sewage treatment system.
- (T) "Installer" means any person who engages in the business of installing or altering or who, as an employee of another, installs or alters any sewage treatment system. This may include the owner of an HSTS performing work on his/her own system.
- (U) "Interceptor drain" means a drain designed to intercept the horizontal flow of subsurface water to reduce its impact on a down gradient soil absorption component.
- (V) "Limiting condition" means a restrictive soil layer, bedrock, ground water, a perched seasonal high water table or other condition or combination of conditions that severely limit the treatment and/or dispersal of sewage or effluent.

- (W) "Linear loading rate (LLR)" means the volume of effluent applied daily along the landscape contour expressed in gallons per day per linear foot. The LLR may also be referred to as the hydraulic linear loading rate. The LLR is used to determine the required length of the distribution system parallel to surface contours.
- (X) "Lot" means a legally recorded parcel of land.
- (Y) "Monitoring" means the activity of verifying performance requirements and may include, but is not limited to, sampling of effluent from a sewage treatment system component. For the purpose of this chapter, monitoring activities shall be conducted by either the board of health or a service provider authorized by the component's manufacturer.
- (Z) "NPDES" means national pollutant discharge elimination system.
- (AA) "OEPA" means the Ohio Environmental Protection Agency.
- (BB) "O&M" means operation and maintenance.
- (CC) "Perched seasonal high water table" means the shallowest depth of soil which is saturated with water above an unsaturated zone for at least three weeks or longer periods of time, often with repeated occurrences during the winter and/or spring seasons of the year.
- (DD) "Perennial stream" means natural waters of the state with a defined stream bed and bank and constant source of flowing water.
- (EE) "Person" has the same meaning as in Section 1.59 of the Revised Code and also includes any state, any political subdivision of a state, and any department, division, board, commission, agency, or instrumentality of a state or political subdivision.

- (FF) "Pollution" means the placing of any noxious or deleterious substance in any waters of the state or affecting the properties of any waters of the state in a manner which renders such waters harmful or inimical to the public health, or to animal or aquatic life, or to the use of such waters for domestic water supply, or industrial or agricultural purposes, or for recreation.
- (GG) "Privy" means any sanitary, waterless device for the collection and storage of human excreta but does not include chemical commodes or other portable receptacles.
- (HH) "Public Health Nuisance" means any condition of sewage (documented by odor, color, or other visual manifestations) that is potentially injurious to the health, safety, comfort, or property of a person or pollutes waters of the state, and where either of the following applies:
- (1) Water samples exceed five thousand fecal coliform counts per one hundred milliliters (either MPN or MF) in two or more samples when five or fewer samples are collected or in more than twenty per cent of the samples when more than five samples are taken.
 - (2) Water samples exceed five hundred seventy-six E. Coli counts per one hundred milliliters in two or more samples when five or fewer samples are collected or in more than twenty per cent of the samples when more than five samples are taken.
- (II) "Replacement" means the installation of a new sewage treatment system to replace an existing system.
- (JJ) "Restrictive soil layer" means a compacted or dense soil layer such as a fragipan, a soil layer with a brittle and firm or very firm consistence, a soil layer have a massive structure or having a platy structure inherited from bedrock or other soil layer similarly restricting vertical flow.

- (KK) "Sanitary sewerage system" and "sanitary sewers" means pipelines or conduits, pumping stations, force mains, and all other constructions, devices, appurtenances, and facilities that convey sewage to a central sewage treatment plant and that are required to obtain a permit under Chapter 6111. Of the Revised Code.
- (LL) "Secured cover" means a removable cover or manhole that prohibits unwarranted or unauthorized removal.
- (MM) "Septage hauler" means any person who engages in the collection, transportation, disposal, and land application of domestic septage.
- (NN) "Septic tank" means any watertight, covered receptacle designed and constructed to receive the discharge of sewage from a building sewer, and to discharge the effluent from settled sewage.
- (OO) "Service provider" means any person who services, but does not install or alter, a sewage treatment system.
- (PP) "Sewage" means any liquid waste containing animal or vegetable matter in suspension or solution from water closets, urinals, lavatories, bathtubs, laundry tubs or devices, floor drains, drinking fountains, or other sanitary fixtures, and may include liquids containing chemicals in solution.
- (QQ) "Soil loading rate" means the daily volume of effluent applied per unit area of in situ soil expressed in gallons per day per square foot. The "soil loading rate" may also be referred to as the basal loading rate or the infiltration loading rate. The "soil loading rate" determines the size of the soil absorption area. The "soil loading rate" and the LLR determine the dimensions of the soil absorption area.
- (RR) "Subdivision" means that which is defined by Section 711.001 of the Revised Code.

- (SS) "Vertical separation distance" means the depth from the infiltrative surface of the distribution system of the soil absorption component to a limiting condition.
- (TT) "Waters of the state" means that which is defined in division (H) of Section 6111.01 of the Revised Code as all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and other bodies or accumulations of water, surface and underground, natural or artificial, regardless of the depth of the strata in which underground water is located, that are situated wholly or partly within, or border upon, this state, or are within its jurisdiction, except those private waters that do not combine or effect a junction with natural surface or underground waters.
- (UU) After the effective date of this resolution, as used in these regulations, A DUPLEX, TWINPLEX, OR OTHER MULTIPLE FAMILY DWELLING shall mean a permanent type structure on a foundation, being constructed as a one unit structure providing living quarters for two or three families, under one roof, with individual entrances to the separate living quarters.

Under no circumstances is a mobile home or combination of mobile homes or any part thereof be construed to meet classifications of a duplex, twinplex or other multiple type dwelling.

13.02 General Provisions and Prohibitions

- (A) The siting, design, installation, alteration, operation, monitoring, maintenance, and abandonment of an HSTS shall comply with this chapter. An HSTS subject to this chapter shall not be installed or operated without an approved permit from the Board of Health. Unless connected to a sanitary sewerage system or utilizing an existing HSTS, a dwelling or structure shall not be occupied or utilized without an approved HSTS.

- (B) All HSTS installed or altered, or permitted to be installed or altered, prior to the effective date of these rules shall comply with the rules in effect at the time of installation, alteration, or permit issuance, unless otherwise required by this chapter. An HSTS that has been installed or altered prior to the effective date of these rules and that is operating or has the capacity to be operable on the effective date of these rules is deemed approved for the purposes of this chapter unless declared to be a public health nuisance by the Board of Health.

- (C) Each household sewage treatment system shall serve one dwelling on an individual lot and shall be properly maintained and operated by the owner. All the sewage from the dwelling shall discharge into the system.

- (D) No HSTS or part thereof shall create a public health nuisance or safety hazard nor pollute surface water or apparent or normal ground water.

- (E) No person shall discharge, or permit to be discharged, treated or untreated sewage, the overflow drainage or contents of a sewage tank, or other putrescible, impure, or offensive wastes into an abandoned water supply, well, spring, or cistern or into a natural or artificial well, sink hole, crevice, or other opening extending into limestone, sandstone, shale, or other rock formation, or normal ground water table.

- (F) No person shall discharge, or permit or cause to be discharged, treated or untreated sewage, the drainage of contents of a sewage tank, or other putrescible or offensive wastes into any ditch, stream, pond, lake, natural or artificial waterway, drain tile, other surface water conveyance or to the surface of the ground unless authorized by an NPDES discharge permit pursuant to Chapter 6111 of the Revised Code or otherwise specified in this chapter.

- (G) No HSTS shall receive water from roof drains, foundation drains, clear water sumps, swimming pools, or other sources that do not convey or generate sewage from the structures served by the HSTS.
- (H) An HSTS shall not be permitted for use in any new lot or new subdivision when soil absorption is not feasible.
- (I) When soil absorption is determined to be infeasible by the Board of Health for a replacement HSTS for an existing dwelling, a discharging HSTS shall only be permitted by the Board of Health in compliance with NPDES requirements.
- (J) When off lot discharge of sewage effluent requires the crossing of adjacent properties to reach the point of discharge a recorded easement or the use of a legally established, publicly maintained drainage improvement from the dwelling lot line to the point of discharge shall be required.
- (K) Lots on which household sewage treatment systems are to be installed shall be of suitable topography and have sufficient suitable area to accommodate an HSTS including a designated area for complete relocation and replacement of an HSTS, as required by this Chapter. This suitable area shall not be less than .75 acres unless the observed soil conditions indicate that a lesser area may be acceptable, and as approved by the Health Commissioner. Under no circumstances shall slope exceed 15 percent or systems be installed within any part of the one-hundred year flood plain, or in any areas designated within the sewerage areas of Portage County's 201 and 208 Lake Erie or Ohio River Basins Water Quality Management Plan as approved by the Ohio EPA.

- (L) Lots on which private water supplies are to be installed shall be of sufficient area to provide isolation of the water supply system from both the original household sewage treatment system and the area intended for any relocation and replacement on this or adjacent lots as required by this chapter.
- (M) An HSTS shall maintain minimum horizontal isolation distances of ten feet from any utility service line, driveway or other hardscape, property line or right-of-way boundary, and any building or other structure, and fifty feet from any water supply source, surface water impoundment, lake, river, or perennial stream.
- (N) No household sewage treatment system shall be installed, maintained, or operated on property accessible to a sanitary sewerage system.
- (O) Whenever a sanitary sewerage system becomes accessible to the property, a household sewage treatment system shall be abandoned and the house sewer directly connected to the sewerage system.
- (P) Plastics in any form, wet strength paper towels, cloth of any kind, rubber products, throw-away baby diapers, cigarette stubs, sand, grit, coffee grounds, excess cooking oils or greases, solvents, paints, caustic or oily liquids or materials, kerosene, gasoline, motor oil, floor waxes or any other wastes known to adversely affect the household sewage treatment system shall not be deposited or flushed in plumbing fixtures nor shall they otherwise be introduced into a building sewer or household sewage treatment system.
- (Q) A separate lot listing on the Portage County tax duplicate shall be provided for each dwelling for which a household sewage treatment system permit is requested. The deed shall be in the permit applicant's name. Land contract is not acceptable.

- (R) In addition to the specifications found in this Chapter, other HSTSs and/or components may be permitted as approved by the Sewage Technical Advisory Committee (TAC) and the Ohio Department of Health as permitted by Chapter 3701-29 of the Ohio Administrative Code.

13.03 Site and Soil Evaluation

- (A) The Board of Health shall conduct a site review for any proposed HSTS installation to complete, or review the completeness of, the site and soil evaluation information required in this rule. The Board of Health shall utilize the site and soil evaluation information to determine the feasibility of siting an HSTS in compliance with this chapter.
- (B) The site and soil evaluation shall be completed by a professional soil scientist who is certified by the Association of Ohio Pedologists or ARPACS, and shall include the assessment and documentation of the following:
 - (1) Designation of the described soil boring and/or excavation locations on a scaled site drawing that shall at least include:
 - (a) The dimensions of the lot or the proposed lot;
 - (b) Any existing dwellings and/or structures and any proposed dwellings and/or structures if known;
 - (c) Any site disturbances (including areas of known fill), existing driveways and other hardscapes, and proposed hardscapes or related site disturbances if known;
 - (d) Location of all private water systems and surface water features on the lot and within fifty feet of the lot boundary;
 - (e) North orientation arrow.

- (2) Record of site and soil characteristics for each soil boring and/or excavation location using USDA NRCS including but not limited to:
 - (a) Site descriptions: landscape position, slope, vegetation, drainage features, rock outcrops, erosion and other natural features;
 - (b) Detailed soil profile descriptions: color, texture, structure, consistence, and the depth of each soil horizon or layer and characterization of all limiting conditions; and
 - (c) Documentation of any relevant surface hydrology, geologic and hydrogeologic risk factors for the specific site or in the surrounding area that may indicate vulnerability for surface water and ground water contamination.
- (3) Drawings and dimensions on the site plan or site drawing of locations on the site that have been evaluated and determined to have the capacity for the treatment and/or dispersal of sewage from the proposed dwelling or structures including adequate length parallel to the land contour to accommodate the soil and linear loading rates for the conditions recorded. For all new lots, and wherever possible on existing lots, the combined minimum area of these designated locations must be .75 acres or more, unless the observed soil conditions indicate that a lesser area may be acceptable, and as approved by the Health Commissioner.
- (4) Identification on the site plan or site drawing of the area for which each soil profile description is representative and designation of any areas with conditions that would prohibit or impact the siting of an HSTS in accordance with this chapter.

- (C) Site and soil evaluations conducted prior to January 1, 2007 and which authorized the installation of sewage disposal systems shall remain valid until July 1, 2009. On such sites, system specifications that were in effect immediately prior to the Sewage Treatment System Rules January 1, 2007 effective date shall remain approvable until July 1, 2009.

13.04 Subdivisions

- (A) Any person proposing to create a subdivision shall submit to the Board of Health, for approval, plans clearly showing that the provisions of rules 13.01 to 13.20 can be adequately met, before any of the lots in the subdivision are sold or offered for sale, whether or not such sale entails a transfer of title or deed.
- (B) No person shall install household sewage treatment systems in new subdivisions, unless it is considered to be impracticable or inadvisable by the Board of Health and the Ohio Environmental Protection Agency to install a central sewage system. No household sewage treatment systems for new subdivisions shall be installed in any areas designated within the sewered areas of Portage County's 201 and 208 Lake Erie or Ohio River Basins Water Quality Management Plan as approved by the Ohio EPA.
- (C) If household sewage treatment systems are proposed, minimum information to be submitted for review includes the following:
 - (1) The total land area to be used;
 - (2) Location and size of all lots;
 - (3) All site and soil evaluation information required in Section 13.03 of this chapter, for each lot;
 - (4) Scaled drawing showing topographic detail with contour lines, and detail on site conditions including vegetation, approximate slopes, and the location of all bodies of water, streams, ditches, sewers, drain tile, existing and proposed potable water supply sources and lines on this or adjacent lots within one hundred feet

of the proposed subdivision, or any other information which may affect the installation or operation of household sewage treatment systems or the enforcement of rules 13.01 to 13.20.

- (D) If the proposed subdivision is to be served by either a sanitary sewerage system or a water supply system or both, plans shall be submitted to the Ohio Environmental Protection Agency as required by Section 6111.44 of the Revised Code.

13.05 Permits for Installation, Alteration, Operation and Maintenance

- (A) The Board of Health shall require a site review application for any proposed installation of a new or replacement HSTS. No person intending to install a new HSTS or replace an existing HSTS shall be issued an installation permit without the Board of Health first approving a site review application. A site review application shall include the application fee and all information required by the Board of Health, including all information required in the site and soil evaluation in accordance with Section 13.03 of this chapter.
- (B) No person shall install or alter a household sewage treatment system without an installation permit issued to him by the Board of Health. The owner or his designated agent shall obtain such installation permit from the Board of Health for the installation of a household sewage treatment system prior to the start of construction of a dwelling.
- (C) No person shall maintain or operate a household sewage treatment system installed after the effective date of this rule without an operation permit, and a maintenance permit when required, obtained from the Board of Health.
- (D) Prior to issuing an installation permit, the Board of Health shall require that an installer submit a layout plan in accordance with Section 13.08(A) of these rules.

- (E) The Board of Health shall issue a permit when the pertinent information indicates that the provisions of rules 13.01 to 13.20 can be met. The Board of Health may specify terms consistent with rules 13.01 to 13.20 on the permit governing the installation, alteration, and operation of the household sewage treatment system.
- (F) The Board of Health shall deny a permit if the information on the application or layout plan is incomplete, inaccurate, or indicates that the provisions of rules 13.01 to 13.20 cannot be met.
- (G) An installation permit shall remain in force until completion of the household sewage treatment system or for one year from the date of issuance, whichever occurs first. The permit may be revoked or suspended by the Board of Health. A maintenance permit, when required, shall be renewed annually.
- (H) The installation and operation of the household sewage disposal system or any part thereof shall conform with the requirements of rules 13.01 to 13.20 and the terms of the permit as required by the Board of Health in division (E) of this rule.
- (I) As a condition of the operation and maintenance permit, the Board of Health shall require a service contract for an HSTS that is subject to an NPDES permit to the extent required by the Ohio Environmental Protection Agency, and for any other HSTS as deemed necessary by the Board of Health and/or in accordance with recommendations by the manufacturer/s of system components.
- (J) Fees for site review applications, permits, and all associated fees shall be established and collected by the Board of Health pursuant to Section 3709.09 of the Revised Code.

- (K) In addition to the fees established under Section (J) of this rule, an application fee for an HSTS installation permit shall be collected on behalf of the Ohio Department of Health and forwarded to the Department to be deposited in the State Treasury to the credit of The Sewage Treatment System Innovation Fund, in accordance with Amended Substitute House Bill 119.

13.06 Registration of Installers of Household Sewage Treatment Systems or Parts Thereof

- (A) No person shall perform the services of an installer unless he holds a valid registration issued to him by the Board of Health.
- (B) Application for registration shall be in writing and contain pertinent information as required by the Board of Health. A fee established for registration, as set forth in Title IX, Chapter 25, shall accompany the application for registration.
- (C) Each registration issued hereunder shall expire annually on December 31.
- (D) A renewal application for registration shall be submitted to the Board of Health at least thirty days prior to the expiration date.
- (E) Proof of liability insurance coverage in the amount of \$300,000/\$300,000 Bodily Injury and \$100,000 Property Damage must accompany the registration application or renewal application.
- (F) Every registrant shall maintain and submit to the Board of Health such data and records as may be required for determining compliance with rules 13.01 to 13.20.
- (G) The owner shall not be required to have a registration for performing work on the household sewage treatment system for the dwelling which he occupies.
- (H) Whenever the Health Commissioner finds that an installer is or has engaged in practices which are in violation of any provision of rules 13.01 to 13.20 or the terms of any permit as required by the Board of

Health in rule 13.05(E) under which installation is performed, the Board of Health shall give notice in writing to the registrant describing the alleged violation and state that an opportunity for a hearing will be provided by the Board of Health to show cause why his registration should not be suspended or revoked.

13.07 Registration of Septage Haulers

- (A) No person shall perform the services of a septage hauler unless he holds a valid registration issued to him by the Board of Health.
- (B) Application for registration shall be in writing and contain pertinent information as required by the Board of Health. A fee established for registration, as set forth in Title IX, Chapter 25, shall accompany the application for registration.
- (C) The Board of Health shall issue a permit when the pertinent information indicates that the provisions of rules 13.01 to 13.20 can be met. The Board of Health may specify terms consistent with rules 13.01 to 13.20 on the permit governing the collection, transportation, and disposal of the contents of sewage tanks or privies and/or establish rules to govern the disposal, handling and transportation of domestic septage.
- (D) Each registration issued hereunder shall expire annually on December 31.
- (E) A renewal application for registration shall be submitted to the Board of Health at least thirty days prior to the expiration date.
- (F) Every registrant shall maintain and submit to the Board of Health such data and records as may be required for determining compliance with rules 13.01 to 13.20.
- (G) Whenever the Health Commissioner finds that a septage hauler is or has engaged in practices which are in violation of any provision of rules 13.01 to 13.20, the terms of the registration permit as required by the Board of Health in rules 13.07(C), or applicable

laws of the State, the Board of Health shall give notice in writing to the registrant describing the alleged violation and state that an opportunity for a hearing will be provided by the Board of Health to show cause why his registration should not be suspended or revoked.

13.08 Layout Plans, and As-Built Records

(A) Following Board of Health approval of a complete site review application, an installer shall submit a layout plan before a permit will be issued. A layout plan shall be legible, readable, and of sufficient detail to demonstrate compliance with the provisions of this chapter. A layout plan shall include:

- (1) A site map, drawn to scale, including but not limited to:
 - (a) HSTS layout elevations corresponding to staked/flagged locations at the site. The locations of the tanks, any pumps required, each distribution box, and all distribution lines must be shown.
 - (b) Designated area for the complete relocation and replacement of the HSTS. Both the initial and replacement systems must be sited within the approved suitable soil area(s) specified on the site and soil evaluation.
 - (c) Location of the property lines; existing and proposed structures, driveways and other hardscapes; and all existing or proposed water wells and water lines. Verification must be provided that all minimum horizontal isolation distances specified in Section 13.02(M) of this chapter are maintained.
 - (d) North direction arrow.

- (2) Written details on product materials and system components including all tanks, pumps, and distribution component materials and mechanisms. Mound system layout plans will also require the complete pressure distribution network description and calculations.
 - (3) Manufacturer O&M requirements or instructions for components wherever applicable.
 - (4) Any additional information requested by the Board of Health related to components, materials, installation, or O&M specifications.
- (B) An as-built record shall be required to be completed by the installer for a completed HSTS installation or alteration as a condition of the installation or alteration permit and before an inspection will be conducted. The as-built record does not substitute for a layout plan required in accordance with this rule. An as-built record shall include:
- (1) Any changes to the approved layout plan including distances from installed HSTS components to any items having applicable horizontal isolation distances. A change in location of an HSTS from that designated on the layout plan shall not be made without prior approval by the Board of Health and shall not violate horizontal isolation distances required by this chapter.
 - (2) Plan view drawing with elevations for installed HSTS components per the layout plan.
 - (3) Profile drawings with pipe and component elevations to confirm depths for hydraulic flow, freeze protection, and other related installation functions.
 - (4) Any additional information for components and materials may be required by the Board of Health including but not limited to manufacturer or supplier provision of component installation or O&M instructions and verification of compliance with any start-up procedures or aggregate specifications.

13.09 Septic Tanks

- (A) The minimum capacity of septic tanks shall be 2000 gallons for single-family dwellings, 2500 gallons for two-family dwellings, and 3000 gallons for three-family dwellings. The tank capacity must be divided into at least two tanks or compartments.
- (B) The septic tanks shall be connected in series and all sewage shall initially enter the first tank.
- (C) Any connector line less than 10 feet long shall be laid at 2% fall or less, and any over 10 feet long at 2% fall or more. Cleanouts shall be provided at any changes in direction greater than 45 degrees, and at intervals not to exceed 100 feet.
- (D) The invert level of the inlet shall be not less than two inches about the liquid level of the tank.
- (E) A vented inlet baffle shall be provided to divert the incoming sewage downward. The baffle shall penetrate at least six inches below the liquid level, but the penetration shall not be greater than that allowed for the outlet device.
- (F) The outlet shall be fitted with a vented tee, vented ell, or baffle which shall extend not less than six inches above and not less than eighteen inches below the liquid level of the tank.
- (G) The septic tank shall have a liquid drawing depth of not less than four feet.
- (H) The distance from the flow line to the cover shall be at least twelve inches.
- (I) The septic tank shall be installed with a minimum of one secured cover extended to grade to provide access to each compartment of the tank for inspection and cleaning. The cover shall have a minimum inside diameter of ten inches.
- (J) All tanks shall be watertight and structurally sound and approved by ODH.

13.10 Off-lot Discharging Household Sewage Treatment Systems

- (A) Off-lot discharging HSTSs shall not be permitted except where a soil absorption HSTS is not possible for a required replacement system; and when authorized by an NPDES permit issued under Chapter 6111 of the Revised Code and rules adopted under it.
- (B) All off-lot discharging HSTSs shall be required to include a sampling well just prior to final discharge. The sampling well, with a minimum inside diameter of eight inches, shall be accessible from the surface of the ground, and shall be provided with a secured cover.
- (C) Systems shall be sized on the basis of one hundred twenty gallons per day per bedroom.
- (D) The Board of Health shall require the HSTS owner to obtain and maintain a service contract for the life of the system in accordance with the manufacturer's O&M instructions.
- (E) Sampling of discharges shall be performed in accordance with the NPDES permit monitoring requirements.

13.11 Soil Absorption Provisions

- (A) Soil absorption components shall maintain a vertical separation distance of at least twelve inches to any limiting condition with the exception of a perched seasonal high water table which requires a minimum of eight inches of vertical separation distance, and bedrock, rock, and other fragments which require at least four feet of vertical separation distance. The vertical separation distance is the depth from the infiltrative surface of the distribution system of the soil absorption component to a limiting condition.
- (B) A minimum of 12 inches of in situ soil shall be required for consideration of any soil absorption wastewater treatment components, except when the limiting condition within 12 inches of in situ soil is a perched seasonal high water table. When this condition exists a minimum of eight inches of in situ

soil may be considered acceptable under specified conditions.

- 1) Approved elevated sand mounds may be used with the addition of approved sand to maintain a minimum of 24 inches of vertical separation distance between the infiltrative surface and the perched seasonal high water table.
 - 2) Approved drip distribution household sewage treatment systems may be used when preceded by ODH-approved pretreatment components achieving a fecal coliform reduction to less than or equal to 10,000 colonies per 100 ml.
- (C) Septic tank effluent may be distributed by gravity to an in situ soil absorption component meeting the vertical separation distances described under paragraph (A) of this rule.
- (D) The soil absorption component area shall be of adequate size and configuration to disperse the effluent and prevent surface seepage. When sizing the soil absorption area the following requirements shall be met:
- (1) Soil loading rates shall be based on soil structure, texture, and consistence of the most limiting in situ soil layer within the vertical separation distance and shall be justified through reference to soil and site evaluation information and the loading rate estimates referenced in Table 1. A ten percent increase shall be applied to all values obtained, to accommodate periodic excess flows.
 - (2) Linear loading rate (LLR) estimates shall be used to determine the required average length of the distribution system parallel to surface contours and shall be based on soil characteristics, land slope, and depth to limiting conditions. LLR estimates shall be justified through reference to soil and site evaluation information and the loading rate estimates referenced in Table 1.

Table 1.

Infiltration rates in gal/da/ft² for wastewater of >30 mg/l* or wastewater of <30 mg/L* and hydraulic linear loading rates in gal/da/ft for soil characteristics of texture and structure and site conditions of slope and infiltration distance. Values assume wastewater volume of >150 gal/da/bedroom. If horizon consistence is stronger than firm or any cemented class or the clay mineralogy is smectitic, the horizon is limiting regardless of other soil characteristics.

Soil Characteristics				Hydraulic Linear Loading Rate, gal/da/ft										
				Slope										
				0-4%			5-9%			>10%				
Texture	Structure		Infiltration Loading Rate, gal/da/ft ²		Infiltration Distance, in.			Infiltration Distance, in.			Infiltration Distance, in.			
	Shape	Grade	>30 mg/L*	<30 mg/L*	8-12	12-24	24-48	8-12	12-24	24-48	8-12	12-24	24-48	
COS, S, LCOS, LS		--	OSG	0.8	1.6	4.0	5.0	6.0	5.0	6.0	7.0	6.0	7.0	8.0
FS, VFS, LFS, VFS		--	OSG	0.4	1.0	3.5	4.5	5.5	4.0	5.0	6.0	5.0	6.0	7.0
COSL, SL	--	OM	0.2	0.6	3.0	3.5	4.0	3.6	4.1	4.6	5.0	6.0	7.0	
	PL	1	0.2	0.5	3.0	3.5	4.0	3.6	4.1	4.6	4.0	5.0	6.0	
		2,3	0.0	0.0	-	-	-	-	-	-	-	-	-	
	PR/BK	1	0.4	0.7	3.5	4.5	5.5	4.0	5.0	6.0	5.0	6.0	7.0	
	/GR	2,3	0.6	1.0	3.5	4.5	5.5	4.0	5.0	6.0	5.0	6.0	7.0	
FSL, VFSL	--	OM	0.2	0.5	2.0	2.3	2.6	2.4	2.7	3.0	2.7	3.2	3.7	
	PL	1,2,3	0.0	0.0	-	-	-	-	-	-	-	-	-	
		1	0.2	0.6	3.0	3.5	4.0	3.3	3.8	4.3	3.6	4.1	4.6	
	PR/BK	1	0.4	0.7	3.5	4.5	5.5	4.0	5.0	6.0	5.0	6.0	7.0	
	/GR	2,3	0.6	1.0	3.5	4.5	5.5	4.0	5.0	6.0	5.0	6.0	7.0	
L	--	OM	0.2	0.5	2.0	2.3	2.6	2.4	2.7	3.0	2.7	3.2	3.7	
	PL	1,2,3	0.0	0.0	-	-	-	-	-	-	-	-	-	
		1	0.4	0.6	3.0	3.5	4.0	3.3	3.8	4.3	3.6	4.1	4.6	
	PR/BK	1	0.4	0.6	3.0	3.5	4.0	3.3	3.8	4.3	3.6	4.1	4.6	
	/GR	2,3	0.6	0.8	3.3	3.8	4.3	3.6	4.1	4.6	3.9	4.4	4.9	
SIL	--	OM	0.0	0.2	2.0	2.5	3.0	2.2	2.7	3.2	2.4	2.9	3.4	
	PL	1,2,3	0.0	0.0	-	-	-	-	-	-	-	-	-	
		1	0.4	0.6	2.4	2.7	3.0	2.7	3.0	3.3	3.0	3.5	4.0	
	PR/BK	1	0.4	0.6	2.4	2.7	3.0	2.7	3.0	3.3	3.0	3.5	4.0	
	/GR	2,3	0.6	0.8	2.7	3.0	3.3	3.0	3.5	4.0	3.3	3.8	4.3	
SCL, CL, SICL	--	OM	0.0	0.0	-	-	-	-	-	-	-	-	-	
	PL	1,2,3	0.0	0.0	-	-	-	-	-	-	-	-	-	
		1	0.2	0.3	2.0	2.5	3.0	2.2	2.7	3.2	2.4	2.9	3.4	
	PR/BK	1	0.2	0.3	2.0	2.5	3.0	2.2	2.7	3.2	2.4	2.9	3.4	
	/GR	2,3	0.4	0.6	2.4	2.9	3.4	2.7	3.0	3.3	3.0	3.5	4.0	
SC, C, SIC	--	OM	0.0	0.0	-	-	-	-	-	-	-	-	-	
	PL	1,2,3	0.0	0.0	-	-	-	-	-	-	-	-	-	
		1	0.0	0.0	-	-	-	-	-	-	-	-	-	
	PR/BK	1	0.0	0.0	-	-	-	-	-	-	-	-	-	
	/GR	2,3	0.2	0.3	2.0	2.5	3.0	2.2	2.7	3.2	2.4	2.9	3.4	

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*30 mg/L applies to BOD₅

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(E) General requirements for siting an HSTS soil absorption component are as follows:

- (1) Effluent dispersal components shall be oriented parallel to natural surface contours and shall not be sited on slopes exceeding 15 percent.

- (2) HSTS layout shall prevent damage to components or operational failures due to freezing temperatures.
 - (3) The layout plan for a soil absorption component may include proprietary soil absorption component specifications including those for gravelless and chamber products, or alternative aggregate product specifications provided these do not conflict with this chapter.
- (F) The unauthorized alteration of topography or soil during the course of building site preparation, excavation, of the construction of the house or other structures, as through soil cutting, compaction, or filling, may disturb the soil to the extent that the original effluent absorptive capacity is diminished. Such alteration may be cause to invalidate the site approval and to require a re-evaluation of the soil suitability.
- (G) Installation shall be conducted by an installer in a manner consistent with an approved plan to assure proper operation and future servicing or monitoring of the soil absorption component.
- (1) Soil moisture conditions shall be evaluated at the time of installation, and the excavation or preparation of the soil infiltration interface shall not proceed when there is a risk of smearing or compaction.
 - (2) Proprietary soil absorption components or alternative aggregate product specified in an approved layout plan shall be installed in accordance with the manufacturer's installation instructions or product specifications provided these do not conflict with this chapter.
- (H) The daily design flow for a soil absorption HSTS shall be a peak flow of one hundred twenty gallons per day per bedroom.

13.12 Leaching Trench Requirements

- (A) A leaching trench soil absorption component shall be sited to avoid natural drainage features and depressions that may hold surface water. The plan for a leaching trench STS shall address surface water diversion as needed. An interceptor drain may be used upslope of an HSTS when horizontal subsurface flow of water would impact a down gradient soil absorption component. A drain outlet shall comply with the following:
- (1) The drain outlet, including rigid solid wall pipe and animal guard, shall be designed to allow for free flow from the invert of the pipe for the purpose of sampling.
 - (2) The invert of the pipe for a gravity flow outlet shall be at least four inches above whichever is closer of the receiving water level or ground.
 - (3) The receiving area for a drain outlet shall not pond and shall allow free flow away from the outlet during both dry and wet weather conditions to an established drainage feature.
 - (4) Written permission shall be obtained for placement of a drain outlet within a right-of-way or legally established public drainage improvement.
- (B) Sites with large trees or numerous smaller trees are less desirable for leaching trenches and such conditions shall be avoided or shall be identified and addressed in the HSTS plan.
- (C) The soil loading rate and linear loading rate shall be determined from the site and soil evaluation information in accordance with Section 13.11(D) of this chapter. For the purpose of sizing, the soil loading rate shall apply to the trench length and the trench width specified for the leaching trench material or component. The trench shall have a minimum width of eighteen inches and shall not exceed two feet in width. The linear loading rate shall be used to establish the minimum average length of the soil absorption area parallel to the natural surface

contours. This minimum average length and the specified trench width shall be used to determine the number of leaching trenches needed to accommodate the daily design flow. Additional leaching trench may be specified for the purpose of providing capacity for resting a portion of the absorption area.

- (D) A pipe and gravel leaching trench shall have a minimum of eight inches of gravel extending two inches above and two inches below a four inch perforated pipe. Gravel shall be three-fourths inch to one and one-half inches in size. Use of other leaching trench material such as alternative aggregate or proprietary gravelless and chamber components shall be specified in accordance with Section 13.11(G)(2) of this chapter.
- (E) A leaching trench bottom shall be level along its length and shall follow the natural surface contour maintaining the specified trench depth from the natural surface of the ground along the entire trench length. The trench depth shall be specified as a uniform depth of no more than twenty four inches from the natural surface of the ground and shall be determined by the vertical separation distance to the limiting conditions.
- (F) The minimum center to center distance between two trenches shall be six feet. This distance shall be increased on wooded sites and sites with slope or irregular contours as necessary to avoid trees and to accommodate variations in the surface contour.
- (G) The minimum distance between any leaching line and any drain line located on the lot shall be ten feet.
- (H) Geotextile fabric or straw covering for aggregate trenches or other barrier as specified for proprietary components shall be used to prevent introduction of soil fines and allow for free movement of air and water.
- (I) The soil cover shall have a depth of at least six inches after settling or as specified for a proprietary product and shall be of a quality to allow for oxygen transfer and growth of vegetation.

- (J) For the purposes of providing proper flow distribution, a means of determining the liquid level of a leaching trench, and a means of resting a portion of the absorption area, a distribution box or drop box shall be required on every trench.
- (K) The land surface shall be graded so as to exclude surface drainage from the household sewage treatment site.
- (L) The full soil absorption area shall be free of any site disturbance. If any disturbance or damage has occurred, installation shall not proceed and the registered installer shall contact the owner and the Board of Health.

13.13 Privy

- (A) A privy shall be provided with watertight vaults or other watertight receptacles of not less than five hundred gallons capacity and shall be a minimum of fifty feet from any water supply source, and twenty feet from any occupied building or lot or right-of-way line.
- (B) All plumbing or drain connections to the privy vault are prohibited.
- (C) The construction and design of the vault and super-structure shall prevent access by insects, fowl, or animals.
- (D) A privy shall be cleaned before the contents reach the top level of the vault.

13.14 Holding Tank

- (A) A water-tight holding tank shall be provided when no otherwise approved septic system is possible to be installed on a lot occupied with an existing failing or inadequate home sewage treatment system.
- (B) The holding tank must be a minimum of 2,500 gallons.
- (C) Each holding tank installed after the effective date of this regulation amendment shall be inspected annually.

- (D) Proof of pumping receipts must be provided to the Portage County Combined General Health District each time a holding tank's contents are removed in whole or in part. Both the owner and the occupant shall be responsible to have the holding tank pumped by an approved septic hauler whenever necessary to avoid the spillage or overflow of septage or to avoid such holding tank becoming or creating a nuisance.
- (E) An inspection and program administrative fee shall be charged annually for all holding tanks installed after the effective date of this regulation amendment.

13.15 Building Sewer

- (A) A building sewer shall have a minimum diameter of four inches.
- (B) A building sewer shall be watertight and constructed of durable material, capable of withstanding a ten foot head of water test or equivalent.
- (C) Traps shall not be installed in a building sewer.
- (D) A building sewer shall be laid in good alignment and embedment at a uniform grade in accordance with engineering practices acceptable to the Ohio Department of Health.
- (E) A building sewer shall be a minimum of ten feet from any household water supply source and water service line, except where the water line is a minimum of twelve inches above the top of the highest point of the building sewer.

13.16 Inspections

- (A) Not later than one year after the installation of an HSTS, the Board of Health shall inspect the system to ensure that it is not a public health nuisance.
- (B) The Health Commissioner may at any reasonable time during the course of construction or any time thereafter inspect any household sewage treatment system or part thereof, sample the effluent, or take any other steps which he deems necessary to insure proper compliance with rules 13.01 to 13.20. The

Health Commissioner may utilize inspection reports or other data submitted or obtained from reliable sources to determine compliance.

- (C) No household sewage treatment system or part thereof shall be covered or put into operation until the system has been inspected and approved by the Health Commissioner.
- (D) The owner or his agent shall request an inspection of the household sewage treatment system at least seventy-two (72) hours in advance of the expected time of completion. Weekends and holidays excepted.

13.17 Abandoned Household Sewage Treatment System

An abandoned HSTS shall have the contents of all tanks removed by a registered septage hauler, and shall have the top and at least one side collapsed to prevent containment of water in the abandoned tank. The resulting void shall be filled to the ground surface with inert and clean fill materials such as sand, gravel, or compacted soil in an amount and manner that allows for settling and prevents ponding of surface water.

13.18 Hearing

The Board of Health shall grant a hearing to any person affected or aggrieved by rules 13.01 to 13.20 upon their request.

13.19 Variance

The Board of Health may grant a variance from the requirements of rules 13.01 to 13.20 as will not be contrary to the public interest, where a person shows that because of practical difficulties or other special conditions their strict application will cause unusual hardship. However, no variance shall be granted that will defeat the spirit and general intent of said rules, or be other wise contrary to the public interest

13.20 Effect of Partial Invalidity

Each rule of rules 13.01 to 13.20, and every part of each rule is an independent rule and a part of a rule, and the holding of any rule or part thereof to be unconstitutional, void, or not effective for any cause does not affect the validity or constitutionality of any other rule or part thereof.