DEFIANCE COUNTY
SEWAGE TREATMENT SYSTEM
REGULATION
Chapter 29

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3701-29-01 Definitions.

As used in this chapter:

(A) "AASHTO" mean the American association of state highway and transportation officials.

(B) “Aerobic type treatment system” or “Aerobic treatment Unit (ATU)” means any system which utilizes the principle of oxidation in the decomposition of sewage by the introduction of air into the sewage or by surface absorption of air for a sufficient period of time to effect adequate treatment.

(C) Alteration/ "Alter" means to change by making substantive replacements of, additions to, or deletions in the design or materials or to change the location of an existing sewage treatment system. For the purposes of this chapter, the terms "alter" or "alteration" shall not include the replacement of an existing sewage treatment system or the repair of a sewage treatment system by making minor corrections to existing components or substituting parts of a component with like parts as would occur during the servicing and maintenance of a sewage treatment system.

(D) "ANSI" means the American national standards institute.

(E) "ARCPACS" means the federation of certifying boards in agriculture, biology, earth and environmental sciences.

(F) "ASTM" means the American society for testing and materials or ASTM international.

(G) "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.

(H) "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.

(I) "Board of health" means the board of health of the Defiance County General Health District or its authorized representative.

(J) “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.

(K) “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 sewage treatment system, or other points of disposal.

(L) "CSA or CAN/CSA" means the Canadian standards association or CSA international.

(M) “Curtain drain” same as definition for “gradient drain”.

(N) "Department of health" means the department of health of the state of Ohio.

(O) "Director of health" means the director of the department of health of the state of Ohio and includes any authorized representative of the director.

(P) “Distribution System” A network of pipes, tubing, or other conveyance installed for the purpose of distributing septic tank effluent evenly over the infiltrative surface.

(Q) "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.

(R) "Drainage system" means a drain or drains designed to effectively lower seasonally ponded or shallow subsurface water to establish or increase an unsaturated vertical separation distance uniformly beneath a soil absorption component. Components may include gradient drains, interceptor drains, surface swales, etc.

(S) “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.

(T) “Easily accessible” means of such location and design as to permit exposure with the use of only simple tools, such as screwdriver, pliers, open-end wrench, or other simple tools supplied by the manufacturer.

(U) "ETV water quality protection center" means the program established by the United States environmental protection agency and the national sanitation foundation to verify commercial-ready technologies that protect ground and surface waters from contamination. Under the program, technologies are evaluated by a third party organization following technically sound test procedures with appropriate quality assurance and quality control to provide purchasers, specifiers, and permitters with credible and relevant data.

(V) “Filter” means any device or material which separates matter in suspension from a liquid.

(W) "Gradient drain" means a drain designed to create a hydraulic gradient to facilitate the flow of subsurface water away from the area of a soil absorption component to allow effluent from a sewage treatment system to infiltrate the soil. Also referred to as a curtain drain or perimeter drain.

(X) "Gray-water" means sewage that does not include flows from toilets and urinals, and in some cases also does not include flows from kitchen sinks carrying food wastes.

(Y) "Ground water" means all water occurring in an aquifer. For the purposes of this regulation, ground water includes an apparent water table (also referred to as normal ground water table).

(Z) "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.

(AA) “Health Commissioner” means the health commissioner of a city or general health district or his authorized representative.

(BB) "Household sewage treatment system (HSTS)" or “Household sewage disposal system” means any sewage treatment system, or part of such a system, that receives sewage from a single-family, two-family, or three-family dwelling and residential dwellings or appurtenances including but not limited to:

(1) A bed and breakfast, residential facility, or other residence as described in divisions (B)(2), (B)(4), and (B)(13) of section 3717.42 of the Revised Code.

(2) An ancillary restroom associated with a dwelling in a location such as a barn or personal garage that is not used as an additional dwelling, sleeping area, or business and the users of the ancillary restroom are the same users as the dwelling. An ancillary restroom shall not be available for public use.

(3) Vacation rental cabins provided there is a separate HSTS for each cabin.

(4) A dwelling with a home business having no access for the general public and does not generate additional sewage as part of its operation.

(CC) "IAPMO" means the international association of plumbing and mechanical officials.

(DD) "Infiltrative surface" means the contact area below the distribution system where sewage is applied to the soil or sand fill for the purpose of treatment and/or dispersal.

(EE) "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.

(FF) "Inspection" means the on-site evaluation or analysis of the functioning of a sewage treatment system.

(GG) "Installer" means any person who engages in the business of installing or altering or who, works under the direct supervision of an installer, and installs or alters any sewage treatment system.

(HH) "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.

(II) “Leaching system” means that part of a household sewage treatment system used to dissipate the effluent from a sewage tank by means of evaporation, transpiration, soil absorption, soil percolation or any combination thereof.

(JJ) "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.

(KK)"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.

(LL)"Lot" means the land area used or intended to be used as a single family, two family, or three family dwelling site.

(MM)"Manufacturer" means any person that manufactures a sewage treatment system or components of a sewage treatment system.

(NN)"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 registered service provider.

(OO)"NPDES" means national pollutant discharge elimination system.

(PP)"NRCS" means the natural resources conservation service.

(QQ)"NSF" means the national sanitation foundation or NSF international.

(RR)"ODNR" means the Ohio department of natural resources.

(SS)"OEPA" means the Ohio environmental protection agency.

(TT)"O&M" means operation and maintenance.

(UU)"Order one soil survey" means a soil inventory produced for very intensive land use that requires detailed information about soils. Standards are described in section 655.04 of the national soil survey handbook. Order two soil survey information is available in county soil surveys.

(VV)"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.

(WW)"Perennial stream" means natural waters of the state with a defined stream bed and bank and constant source of flowing water.

(XX)"Person" has the same meaning as in section 1.59 of the Revised Code (includes an individual, corporation, business trust, estate, trust, partnership, and association) 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.

(YY) “Point of discharge” means the point at which the effluent from a household sewage treatment system or curtain drain enters a public ditch, public tile or discharges to the surface of the ground or to a body of water.

(ZZ) “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.

(AAA) “Privy” means any sanitary, waterless device for the collection and storage of human excreta but does not include chemical commodes or other portable receptacles.

(BBB)"Pressure distribution" means dispersal of sewage tank effluent in a manner that assures no more than a ten per cent difference in flow rate between the proximal and distal orifices on each distribution lateral and within the total distribution network.

(CCC) "Public health nuisance" as defined in Section 120.02 of HB 119 of the 127th Ohio General Assembly shall be deemed to exist when an inspection conducted by a board of health documents odor, color, or other visual manifestations of raw or poorly treated sewage or 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.

(DDD) "Replacement" means the installation of a new sewage treatment system to replace an existing system.

(EEE) "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 having a massive structure or having a platy structure inherited from bedrock or other soil layer similarly restricting vertical flow.

(FFF)"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.

(GGG) “Seasonally high water table” means the same as Perched seasonal high water table.

(HHH) “Secured cover” means a removable cover or manhole that prohibits unwarranted or unauthorized removal.

(III) “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.

(JJJ)"Septage hauler" means any person who engages in the collection, transportation, disposal, and land application of domestic septage.

(KKK)"Service provider" means any person who services, but does not install or alter, a sewage treatment system.

(LLL)"Sewage" means any liquid waste containing animal or vegetable matter in suspension or solution that originates from humans and human activities. “Sewage” includes liquids containing household chemicals in solution commonly discharged from a residence or from commercial, institutional, or other similar facilities.

(MMM) “Sewage tank” means any watertight tank designed to retain sewage and includes, but is not limited to, septic tanks and aerobic type treatment tanks (also known as aerobic treatment units).

(NNN) Sewage tank cleaner” means the same as “Septage Hauler”.

(OOO)"Sewage treatment system (STS)" means a household sewage treatment system (HSTS), a household sewage disposal system, a small flow on-site sewage treatment system, or all, as applicable.

(PPP)"Small flow on-site sewage treatment system (SFOSTS)" means a system, other than an HSTS, that treats not more than one thousand gallons of sewage per day and that does not require a national pollutant discharge elimination system permit issued under section 6111.03 of the Revised Code or an injection well drilling or operating permit issued under section 6111.043 of the Revised Code. A structure or structures served by a SFOSTS shall include but is not limited to:

(1) Vacation rental cabins with multiple cabins served by an SFOSTS.

(2) A dwelling and an ancillary building both served by an SFOSTS where the ancillary building may be open to the public and is used by more than the residents of the dwelling.

(3) Two dwellings, including arrangements such as a dwelling and a detached garage with living space.

(4) A dwelling with a home business that may be open to the public, generates sewage in excess of the daily design flow or waste strength for an HSTS, and has no wastewater going to the SFOSTS other than sewage as defined in this rule.

(QQQ)"Soil depth credit" means the use of the design mechanisms of elevation, pretreatment, and/or distribution as substitutes for in situ soil treatment to compensate for inadequate vertical separation distance between the infiltrative surface and the limiting condition.

(RRR)"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 optimum dimensions of the soil absorption area.

(SSS)"Subdivision" means that which is defined by section 711.001 of the Revised Code.

(TTT)"Timed dosing" means a mechanism that attenuates flows resulting from high water use periods and allows for controlled dosing intervals through use of a timing device.

(UUU)"UIC" means underground injection control and relates to the OEPA underground injection control program authorized by sections 6111.043 and 6111.44 of the Revised Code.

(VVV)"UL" means underwriters laboratories incorporated.

(WWW)"USDA" means the United States department of agriculture.

(XXX)"USEPA" means the United States environmental protection agency.

(YYY)"Vertical separation distance" means the depth from the infiltrative surface of the distribution system of the soil absorption component to a limiting condition.

(ZZZ)"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.

3701-29-01.1 Purpose and Scope

(A) The purpose of the STS rules is to establish HSTS and SFOSTS rules of general application including standards for siting, design, installation, alteration, operation, monitoring, maintenance, and abandonment of an STS to protect public health and the environment. The STS rules apply to HSTS in accordance with paragraphs (B) and (C) of rule 29-01.2 of this Chapter and only those SFOSTS that are under the jurisdiction of the Defiance County Board of Health. It is recognized that certain design standards contained in Chapter 29 for SFOSTS differ from those standards for on-site systems regulated under Chapter 3745-42 of the Administrative Code due to affirmative maintenance requirements for SFOSTS under this chapter. As such, differences in design standards between these two regulations should not be construed as a conflict of law.

(B) The scope of the rules includes the performance of STS components, persons, agencies, and organizations as these relate to the effective management of HSTS and SFOSTS , including the siting, design, installation, alteration, operation, monitoring, maintenance, and abandonment of an STS.

(1) STS components include those specified directly in rule, designated by a review process specified in rule, or addressed through the technical advisory committee review in compliance with sections 3718.03 and 3718.04 of the Revised Code.

(2) Persons include owners, operators, site evaluators, soil evaluators, manufacturers, suppliers, designers, installers, septage haulers, service providers, inspectors, and regulators.

(3) Agencies include boards of health, the department of health, and OEPA.

(4) Organizations include professional associations, educational providers, responsible management entities, and other organizations engaged in activities addressed in the rules.

29-01.2 Authority, Applicability, and Related Provisions

(A) Unless otherwise specified, the rules apply to both HSTS and SFOSTS, referred to jointly as STS. When the rules specifically address SFOSTS, the provisions only apply to those SFOSTS that are under the jurisdiction of the board of health having met the following requirements:

(1) The board of health has determined that all applicable provisions of the rules related to SFOSTS can be fully implemented under its authority.

(2) The board of health has committed to maintaining the necessary resources to support implementation of all applicable rules.

(3) The board of health has sent a letter of notification to the director of health and the director of environmental protection at least sixty days prior to the date when the board of health will assume authority for SFOSTS. The letter of notification shall include the intended date for transfer of jurisdiction and shall indicate compliance with paragraphs (A)(1) and (A) (2) of this rule.

(B) This Chapter shall apply to all STS permitted to be installed or altered pursuant to this chapter after the effective date of this chapter. In cases where the board of health has provided written approval for a household sewage disposal system prior to January 1, 2007, the board of health shall permit the installation of the household sewage disposal system under the following conditions:

(1) There is written documentation of the household sewage disposal system approval by the board of health and the written approval has not expired.

(2) The household sewage disposal system shall not conflict with provisions of the NPDES program established in section 6111.03 of the Revised Code or rules adopted or permits issued pursuant to section 6111.03 of the Revised Code.

(3) The owner obtaining an installation permit requests to install the previously approved household sewage disposal system.

(4) The installation permit for the household sewage disposal system is issued by the board of health prior to the site review and soil evaluation expiration date.

(5) Other than the siting and household sewage disposal system specifications previously approved by the board of health, the provisions of this chapter shall apply.

(C) All STS 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.

(D) Unless otherwise specified in this chapter, the persons responsible for compliance with the rules, including but not limited to the siting, design, installation, alteration, operation, monitoring, maintenance, and abandonment of an STS, shall be the property owner and any person performing a related service or activity. Enforcement action may be taken against the property owner and/or any person who performs a related service or activity.

(E) The board of health is responsible for implementation of this chapter. Implementation shall be accomplished through the coordination of regulatory responsibilities with other appropriate parties, adequate communication and notification to regulated persons, and legal and equitable enforcement.

3701-29-02 Sewage Treatment System (STS) General Requirements

These provisions and prohibitions provide an overview of the conditions that impact the use of an STS, establish general criteria for STS performance, limit the use of discharging HSTS, and identify other regulations related to the use of an STS. The purpose of this rule is to encourage preliminary consideration of STS suitability and general regulatory requirements prior to investing in required activities for compliance with other provisions of this chapter.

(A) The siting, design, construction, installation, alteration, location, monitoring, maintenance, operation and abandonment of a sewage treatment system (STS) including, but not limited to, septic tanks, aerobic type treatment systems, filters, leaching tile fields, building sewers, and privies or parts thereof shall comply with these rules and engineering practices acceptable to the Ohio department of health and current Ohio environmental protection agency effluent standards.

(B) Any dwelling or structure which is not connected to a sanitary sewerage system shall be provided with an approved household sewage treatment system, prior to its being occupied. This includes new dwellings on previously vacant lots and dwellings that are replacing a preexisting dwelling.

(C) Any dwelling whose modification results in an increase in the number of bedrooms or plumbing fixtures must also alter or replace the sewage treatment system to provide a daily design flow that is adequate for the increased estimated flow generated by the dwelling or structure.

(D) Each household sewage disposal system shall serve one dwelling on an individual lot and shall be properly maintained and operated by the owner. An SFOSTS may serve multiple dwellings or structures. In the case where two or more dwellings or structures are served by an SFOSTS, the entire SFOSTS shall be owned and operated by one person. All the sewage from the dwelling or structure shall discharge into the system.

(E) No household sewage disposal system or part thereof shall create a nuisance.

(F) No STS shall discharge to an abandoned well, drainage well, a dry well or cesspool, a sink hole or other connection to ground water. If classified as a class V injection well, an HSTS serving a two or three family dwelling or an SFOSTS shall comply with 40 C.F.R. 144 (as published in the July 1, 2005 Code of Federal Regulations) and the registration requirements pursuant to rule 3745-34-13 of the Administrative Code.

(G) No STS shall discharge to 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.

(H) Off-lot disposal of sewage effluent shall not be permitted except where the installation of an on-lot disposal system is not possible, as determined by a site review and/or soil evaluation and coverage under an NPDES permit has been obtained.

(I) Lots on which household sewage treatment systems for dwellings are to be installed shall be of suitable topography and area to permit compliance with rules 29-01 to 29-21. STS shall not be sited under the following conditions:

(1) An HSTS shall not be sited in an area identified as a flood way, nor within any part of the one-hundred year flood plain where prohibited by federal, state, or local regulations or ordinances. An SFOSTS shall comply with the flood plain criteria established by OEPA.

(2) An STS shall not impact or be sited within a jurisdictional wetland subject to a U.S. army corp of engineers 404 permit and/or OEPA 401 certification or within an isolated wetlands subject to sections 6111.02 to 6111.029 of the Revised Code.

(3) An STS shall not be sited within the sanitary isolation radius of a public water system well as determined in accordance with rule 3745-09-04 of the Administrative Code. An SFOSTS shall have additional design and/or management controls when sited within the inner management zone of a drinking water source protection area determined to be highly susceptible to contamination by the OEPA source water assessment and protection program for a community or non-transient non-community public water system as defined in rule 3745-81-01 of the Administrative Code.

(4) An STS shall not be sited under soil and site conditions that prohibit compliance with this chapter. The following are examples of conditions that may be prohibitive or may require additional siting, design or management conditions:

(a) Exposed bedrock, boulders, stones, gravel, and coarse sand at or above the surface of the ground or underlain within a foot of the ground surface.

(b) Slopes in excess of the limits of the design, installation, maintenance or operation of the proposed STS or when there is risk of slippage, slump, or land slide.

(c) Filled, reclaimed, or disturbed areas where soil and site conditions may not be adequate to provide treatment and/or dispersal.

(J) A suitable area meeting all required isolation distances shall be available to provide for the complete relocation and replacement of the household sewage treatment system as required by rules 29-01 to 29-21.

(K) 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 rules 29-01 to 29-21.

(L) A household sewage treatment system and replacement area shall be a minimum of:

(1) 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

(2) 100 feet from wells having a sealed casing and annular space less than 25 ft. deep and potable water table ponds

(3) fifty feet from any water supply source other than those listed in (L)(2) of this rule, surface water impoundment, lake, river, or perennial stream on this or any adjacent lot

(M) No household sewage treatment system shall be installed, maintained, or operated on property accessible to a sanitary sewerage system.

(N) 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. The board of health shall consult with appropriate sewer entity personnel as necessary to determine sanitary sewer accessibility. In the absence of other legal authority governing the access to a sanitary sewage system, the board of health shall determine accessibility and the conditions and schedule for sanitary sewer connection and abandonment of an STS. The board of health may utilize the criteria established in division (C) of section 6117.51 of the Revised Code for an existing HSTS. In the case of an SFOSTS, the board of health shall comply with any criteria established by the OEPA.

(O) Roof water, foundation drain, cistern overflow, surface drainage, and subsurface drainage shall not be discharged into a household sewage treatment 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. No STS shall be permitted for the holding, treatment, or dispersal of industrial waste or storm water for industrial activities. For the purpose of this rule, the normal use of housekeeping products does not constitute industrial waste.

(Q) Clearwater sumps, swimming pools, or other sources that do not convey or generate sewage from the structures served by the STS shall not be introduced into a building sewer or household sewage treatment system.

(R) A STS shall comply with the following performance requirements and prohibitions:

(1) An STS shall be maintained in proper working condition.
(2) An STS shall comply with the conditions specified in an installation and/or operation permit issued by the board of health.
(3) No STS or part thereof shall create a public health nuisance or safety hazard nor pollute surface water or ground water.

(S) An STS shall utilize soil absorption as the means for final treatment and/or dispersal, except for the HSTS conditions and limitations described in paragraph (S)(2) of this rule when soil absorption is not feasible as demonstrated through the site and soil evaluation conducted in accordance with rule 29-10.1 of this Chapter.

(1) An STS shall not be permitted for use in any new lot or new subdivision created after January 1, 2007. when soil absorption is not feasible.
(2) When soil absorption is determined to be infeasible by the board of health for a replacement HSTS for an existing dwelling or a new HSTS for an existing lot created prior to January 1, 2007, a discharging HSTS shall only be permitted by the board of health in compliance with NPDES requirements. A board of health shall not permit or otherwise authorize the use of an STS that would violate the conditions of this paragraph.

(T) A permanent legal easement shall be required for any portion of an STS not sited on the same parcel as the structures or dwelling served by the STS. When an easement is required under this paragraph, an STS installation permit shall not be issued by the board of health until a certified copy of the legally recorded easement is provided.

3701-29-03 Subdivisions

This rule addresses the critical prerequisite activities of assessing sewer accessibility, STS feasibility, and any area risk factors prior to the recording of a lot or subdivision. Informing property owners, land developers, and prospective buyers of the provisions of this rule, and effective implementation of these provisions, allows for a proactive versus reactive approach to proposed STS development and should prevent future problems when siting an STS. This rule is not intended to serve as a substitute for planning, zoning, sanitary sewerage, or land use responsibilities exercised by other authorities.

(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 29-01 to 29-21 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. The board of health review required in paragraph (E) of this rule shall be coordinated, as applicable, with authorities having responsibility for the requirements established in Chapter 711. of the Revised Code, zoning, recording of parcels of land, or other land use authorities. Regarding sanitary sewerage accessibility, the board of health shall consult with appropriate sewer entity personnel such as a municipal or county sanitary engineer to confirm sewer accessibility and plans for sewer extensions by a municipality, sanitary district, regional water and sewer district, or other management entity or wastewater planning authority responsible for sanitary sewerage.

(B) An STS shall not be sited, installed, or permitted for a proposed new lot or subdivision when any of the following conditions have been met:
(1) A proposed lot or subdivision is accessible to a sanitary sewerage system.
(2) It is considered to be impracticable or inadvisable by the board of health or the Ohio Environmental Protection Agency to install a central sewage system.
(3) Siting an STS on any proposed new lot or subdivision lot would violate the prohibitions in paragraph (I) of rule 29-02 .
(4) A proposed STS would require an NPDES permit.
(5) Other conditions which would prohibit compliance with this chapter.

(C) Any person proposing a subdivision or new lot or lots for review by the board of health shall submit a completed site review and soil evaluation as applicable compliant with rule 29-10.1 of this Chapter.

(1) In accordance with the Defiance County Subdivision Regulations, plats having greater than five lots will not be approved for Sewage Treatment Systems and a central sewerage system is required.

(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.

(E) Proposed subdivisions and new lots shall be reviewed by the board of health to determine if there are any restrictions on the use of STS. The board of health shall review readily available resources including but not limited to source water assessment reports for public water systems and ground water pollution potential maps to assess risks to surface and ground water from proposed onsite sewage treatment and may consult with the OEPA for advice on any water quality concerns.

(1) Upon receipt of a copy of the completed Defiance County Minor Subdivision Approval Form from the Regional Planning Office, the board of health will respond in writing prior to the last day for review noted on the form.

(2) The written documentation of compliance with this chapter and the board of health review required by this rule shall not preclude the denial of an installation permit pursuant to rule 29-04 of this Chapter if conditions change.

3701-29-04 Site Review, Plans, Installation Permit and Operation Permit

This rule includes the provisions for site review, issuing a permit, and determining compliance with the conditions of a permit. Given the limitations on the permitting of a discharging STS for a new home, owners and builders are strongly encouraged to obtain an approved site review application prior to Lot development in order to assure that a soil absorption STS can be sited. Permits for installation and operation provide a mechanism for regulatory oversight of the siting, design, installation, alteration, operation, monitoring, maintenance, and abandonment of an STS.

(A) No person shall install or alter a sewage treatment system (STS) without an installation permit issued to them by the board of health. The owner or a 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.

(B) No person shall maintain or operate a STS installed after the effective date of this rule without an operation permit obtained from the board of health.

(C) Application for permit shall be in writing and contain pertinent information as required by the board of health. Any fee established for a permit by law or authority of law shall accompany the application.

(D) The board of health shall issue a permit when the pertinent information indicates that the provisions of rules 29-01 to 29-21 of this Chapter can be met. The board of health may specify terms and conditions of an installation or alteration permit governing the siting, design, installation, alteration, operation, monitoring, maintenance, or abandonment of the STS, unless such terms and conditions conflict with Chapter 3718. of the Revised Code or this chapter.

(E) The board of health shall deny a permit if the information on the application is incomplete, inaccurate, or indicates that the provisions of rules 29-01 to 29-21 of this Chapter cannot be met.

(F) An approved installation permit or alteration permit issued by the board of health shall be valid for one year from the date of issuance or until the installation or alteration is completed and approved by the board of health within the one year period. The board of health may extend the permit period for an additional six months for permits issued pursuant to this rule.

(G) An approved installation or alteration permit may be revoked by the board of health prior to its expiration if a change in site conditions, the quality of the installation or alteration work, or other circumstances arise that may prevent compliance with this chapter.

(H) The installation and operation of the STS or any part thereof shall conform with the requirements of rules 29-01 to 29-21 of this Chapter and the terms of the permit as required by the board of health in division (D) of this rule.

(I) The board of health shall require a completed site review for any proposed installation of a new or replacement STS. No person intending to install a new STS or replace an existing STS shall be issued an installation permit without a completed site review approved by the board of health.

(1)A site review application shall include the application fee, floor plan, scaled site plan and any information required by the board of health.

(2) A soil evaluation shall be completed using the standardized Ohio Soil Evaluation Form

(3) The board of health shall review the application information to determine whether the proposed design plan or layout plan, or proposed STS alteration as applicable, is in compliance with this chapter. When the board of health determines that a proposed STS is subject to the NPDES or UIC requirements of paragraphs (F) and (G) of rule 29-02 of this Chapter, the board of health shall assure compliance with NPDES or UIC requirements prior to issuing a permit in accordance with paragraph (D) of this rule.

(4) The board of health shall deny a site review application if the application information is incomplete or inaccurate or if the application information, site review by the board of health, or site and soil evaluation indicates that the provisions of this chapter cannot be met.

(5) The board of health shall approve a site review application when the information, site review by the board of health, and site and soil evaluation demonstrate that the provisions of this chapter can be met. An approved site review application shall be valid for one year from the date of approval.

(6) The board of health may deny the approval of an installation or alteration permit if there are changes to site conditions or the site review application information and may require reapplication including a fee to reapply.

(J) The installation, replacement, or alteration of an STS shall only be conducted by an installer registered incompliance with rule 29-05, except in the case of a homeowner who may install, replace, or alter an HSTS for a single family dwelling that will serve or serves as the homeowner's primary permanent residence when competency is demonstrated through compliance with the testing requirements of 29-05.1 (D) (2)

(K) The board of health shall inspect a completed installation or alteration. The as-built record, any applicable system start-up information, or other documentation required in rule 29-04.1. The board of health may require advance notification from the registered installer or the designer of the STS to accommodate inspections during the progress of the installation or alteration.

(1) The board of health shall approve an installation or alteration upon the satisfactory completion of all work and documentation required by this chapter and the terms and conditions of the permit.

(2) No person shall operate an STS without an approved and valid operation permit

from the board of health.

(L) An operation permit shall be in effect upon board of health approval of an installation, a replacement, or an alteration of an STS. The responsible party, whether it is the STS owner, a responsible management entity recognized by the board of health, or both, shall be subject to the terms and conditions of an operation permit.

(1) The board of health shall specify any operation permit fees and the terms and conditions of the operation permit consistent with this chapter governing the operation, monitoring, maintenance, and abandonment of the STS. The board of health shall require an STS service contract as a condition of an operation permit in accordance with this chapter and the requirements of paragraph **(L)(4) of this rule**.

(2) A board of health shall inspect an STS not later than **Twelve** months after its installation to ensure that the system is operating properly and shall **certify to the director of health on a form provided by director that an inspection was completed. This form shall be sent not later that sixty days after the completed inspection.**

(3) An operation permit may be renewed, suspended, or revoked by the board of health subject to the requirements of this chapter, the terms and conditions of the permit, and the O&M management provisions established by the board of health in accordance with rule **3701-29-18** of the Administrative Code. An operation permit shall be valid until it expires or is suspended or revoked by the board of health. An operation permit is subject to suspension or revocation conditional upon the responsible party's or parties' compliance with this chapter and the terms and conditions of the permit.

(4)An operation permit shall require a service contract for an STS under the following conditions and as otherwise required by the board of health:

(a) Any HSTS subject to an NPDES permit.

(b) Any STS with a pretreatment component subject to paragraph (D) of **rule 3701-29-11 of the Administrative Code**.

(c) Any STS with a soil absorption component subject to paragraphs **(C)(3) and (D)(1) of rule 3701-29-11 of the Administrative Code.**

(d) When required as a condition of an STS component or system approval granted by the director of health in accordance with **paragraph (D) of rule 29-20.**

3701-29-04.1 Layout Plans, Design Plans and As-Built Records

This supplemental rule provides detail on layout plan and design plan options for new and replacement installations. To prevent avoidable problems during installation, a layout plan or a design plan is included with the site review application to assure proper STS siting in advance of a permit being issued. The intent of this rule is to assure adequate information and documentation for site review application and permit approval and to assure installation in accordance with applicable rules and approved plans to promote long term STS operation.

(A) A registered installer must submit a layout plan or a design plan as applicable prior to the issuance of an installation permit. A layout plan may substitute for the design plan required in paragraph (B) of this rule when the proposed HSTS does not utilize a soil depth credit for pathogen reduction. A layout plan shall include:

(1) A site plan drawn to scale on eight and a half inch by eleven inch or larger paper showing HSTS layout elevations corresponding to flagged or staked locations at the site. The designated HSTS area shall be protected from disturbance. The site plan shall also verify horizontal isolation distances and include the designated area for complete relocation and replacement of the HSTS as required in paragraph (J) of rule 29-02 of this Chapter.

(2) Written details on the daily design flow, selected loading rates based on the site and soil evaluation, system configuration with absorption area dimensions, and, if applicable, pump selection information and pressure distribution network description and calculations.

(3) Product information and written description of materials and system components including size of all tanks and distribution component materials including mechanical distribution and diversion mechanisms.

(4) Manufacturer O&M requirements or instructions for components not addressed in general O&M information available through the board of health.

(5) Any additional information requested by the board of health related to components, materials, and installation or O&M specifications.

(B) A design plan in compliance with this paragraph shall be required unless a layout plan is provided by a registered installer in compliance with paragraph (A) of this rule. A design plan shall be legible, readable, and of sufficient detail to demonstrate compliance with the provisions of this chapter. A design plan shall include:

(1) Documentation of the rationale for design decisions used to address site and soil limitations including justification for selected loading rates and the use of any soil depth credits. The site and soil evaluation shall be available with the design plan.

(2) Description of the dwelling and/or structures to be served by the STS with a designated daily design flow including any anticipated variations. The STS shall be designed to handle peak daily design flows or the design shall include flow equalization with designated reserve and surge capacity and timed dosing in compliance with rule 29-07 of this Chapter.

(3) Description of the treatment processes used to meet performance requirements including information necessary to confirm compliance with any applicable NPDES effluent quality standards or applicable standards

established in rule 29-08 of this Chapter. In addition, if applicable, documentation of pollutant concentrations and mass loading in excess of residential waste strength, including the design for treatment to reduce higher strength wastewater to typical residential waste strength prior to distribution to a soil absorption component.

(4) Plan notes designating that the STS area shall be protected from disturbance, and additional plans notes as needed to explain any siting, installation, or O&M requirements or restrictions, including any preconstruction meetings at the site, conditions on the selection of an installer, STS start-up procedures or other designer-designated conditions.

(5) A site plan, drawn to a scale of one inch equals fifty feet or less, sufficient to demonstrate compliance with this chapter including but not limited to:

(a) North directional arrow.

(b) Identified vertical and horizontal reference point or benchmark with its location clearly marked at the site.

(c) Designation of the described soil boring and/or excavation locations from the soil and site evaluation.

(d) Outline of existing and proposed structures, driveways and other hardscapes, and other related items on the property.

(e) Location of STS components and a replacement area.

(f) The dimensions of the property with horizontal isolation distances to the STS and replacement area from the items designated in paragraph (L) of rule 29-02 of this Chapter, including but not limited to private water systems and surface water features. systems and surface water features.

(g) Topography for the areas of the dwelling and/or structures to be served and the proposed STS and designated replacement areas including an indication of drainage features in these and surrounding areas.

(h) Designation of any easements, disturbed areas, or wooded areas within fifty feet of the proposed STS and replacement area, or other site characteristics or obstructions that may affect the installation or operation of the STS.

(i) Means of access for O&M equipment to service the STS.

(6) Enlarged plan view drawings of the STS components if the site plan scale does not allow for sufficient detail.

(7) Profile drawing showing elevations relative to surface grade sufficient to demonstrate compliance with this chapter including the invert elevations necessary to assess the hydraulic profile of STS components and any gravity or pumped discharge outlet elevations.

(8) Plan and section views for the STS components and/or attachments of component and material specification information.

(9) Installation and O&M instructions.

(10) Plan note requiring that the STS installer consult with the designer regarding any intended changes to the plan and requiring installer/designer coordination on the provision of an accurate as-built record.

3701-29-04.2 Fees, Fee Categories, Fee Transmittal and Reporting.

(A) The fees shall be established using the categories prescribed in this rule and the cost methodology prescribed by rule 29-04.3 of this Chapter. The Ohio Department of Health shall receive the portion of each permit fee for STS installation or replacement as required under paragraph (B) of this rule.

(B) The board of health shall collect a fee outlined in HB 119 (127th General Assembly) on behalf of the Ohio Department of Health and forward the fee to the Department.

(C) Fees established by the board of health shall be specified in accordance with the following categories:

(1) An application for a site review of an HSTS or SFOSTS.

(2) Permit for the installation or replacement of an HSTS.

(3) Permit for the installation or replacement of an SFOSTS.

(4) Permit for the alteration of an existing HSTS.

(5) Permit for the alteration of an existing SFOSTS.

(6) Operation permits for HSTS and SFOSTS.

(7) Registration of installers, service providers and septage haulers as required in rule 29-05 of this Chapter.

(8) Vehicle permits for septage haulers as required in paragraph rule 29-5.4 of this Chapter.

(9) An application for a variance under rule 20 of this Chapter.

(10) Additional fees may be established by the board of health for the purposes of managing the STS program, including fees for the collection and examination of any necessary samples taken to determine compliance with this chapter.

3701-29-04.3 Cost Methodology

(A) Commencing one year after the effective date of this rule, the board of health shall use data from its previous fiscal year to calculate the actual cost of administering and enforcing The Defiance County Sewage Treatment System Regulation Chapter 29. The board of health shall calculate the actual cost of the program including the following functions:

(1) The administration and enforcement of the site and plan review, permitting and installation, and inspections of HSTS. Inspections shall include any site inspections, installation inspections, and operation inspections required in this chapter.

(2) The administration and enforcement of the site and plan review, permitting and installation, and inspections of SFOSTS. Inspections shall include any site inspections, installation inspections and operation inspections required in this chapter.

(3) Operational oversight of HSTS and SFOSTS.

(4) Registration of installers, service providers and septage haulers.

(5) Permitting of vehicles for septage hauling.

(6) Consultation and Investigation of complaints of noncompliance with this Chapter.

(7) Conducting sampling as necessary to determine compliance with this chapter.

(8) Provision of education and consultation services.

3701-29-05 Registration of Installers, Service Providers, and Septage Haulers

(A) No person shall perform the services of an installer, service provider, or 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. Any fee established for a registration by law or authority of law shall accompany the application.

(C) Each registration issued hereunder shall expire annually.

(D) A renewal application for registration shall be submitted to the board of health at least thirty days prior to the expiration date.

(E) Every registrant shall maintain and submit to the board of health such data and records as may be required for determining compliance with rules 29-01 to 29-21 of this Chapter.

(F) Whenever the health commissioner finds that an installer, service provider, or septage hauler is or has engaged in practices which are in violation of any provision of rules 29-01 to 29-21 of this Chapter or the terms of any permit as required by the board of health in rule 29-04(D) 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.

3701-29-05.1 Responsibility for Compliance, Demonstration of Competency, and Registration Requirements

This rule identifies the responsibilities of persons engaging in activities related to the siting, design, installation, alteration, operation, monitoring maintenance, and abandonment of STS. Emphasis is placed on the owner as the primary responsible party in managing the tasks associated with private sector parties acting as agents on behalf of an owner. Regardless of whether the owner, an agent of the owner, or the regulatory authority conducts an identified task or activity, all parties are expected to demonstrate competency in meeting performance requirements. Other rules expand on the tasks and measures of competency associated with these responsibilities.

(A) The property owner is responsible for the proper siting, design, installation, alteration, operation, monitoring, maintenance, and abandonment of an STS. The owner shall comply with all applicable provisions of the law and rules and shall operate the STS in compliance with O&M instructions and any conditions of an operation permit issued by the board of health.

(B) A site and soil evaluator shall comply with the requirements of rule 29-03 and rule 29-10.1 of this Chapter. A site and soil evaluator shall be capable of properly conducting site and soil investigations and accurately recording required information. They shall be a registered sanitarian trained in soil evaluation or an individual certified as a professional soil scientist by the association of Ohio pedologists or ARCPACS.

(C) A designer shall comply with the requirements of this chapter and all other applicable laws and rules when submitting design plans for an STS, including details on system components, construction, and O&M sufficient for regulatory review and determination of compliance. Design plans shall be completed in accordance with rule 29-04.1 of this Chapter. Designers shall be able to perform the following to demonstrate competency:

(1) Estimate and report any expected variations in STS daily design flows and SFOSTS pollutant concentrations and mass loads exceeding residential waste strength.

(2) Select appropriate system components capable of meeting performance requirements based on site and soil evaluation information.

(3) Prepare scaled design plan, profile, and detail drawings depicting STS layout, dimensions, and materials and equipment specifications including construction, and O&M information.

(4) Conduct installation oversight as necessary to assure provision of an adequate installer as-built record documenting installation in accordance with approved design plans.

(D) An installer, septage hauler, or service provider shall comply with the general conditions for registration required in this paragraph and the specific provisions and competency requirements respectively applicable in rule 29-05, rule 29-05.1,

rule 29-05.3, and rule 29-05.4 of this Chapter.

(1) An application for registration shall be submitted to the board of health and shall include all information required by the board of health, the registration fee, verification of compliance with the testing provisions of paragraph (D)(2) of this rule and the competency requirements of this chapter, and proof of a surety bond as required under paragraph (D)(3) of this rule.

(a) A registrant that is a partnership, corporation, or other business association, shall designate one partner, officer, or other responsible full-time employee who shall be the company's representative registrant.

(b) Registration is not required of any person who performs labor or services under the direct supervision of a registrant. For the purposes of this rule "direct supervision" means that a registrant instructs and controls the person claimed to be supervised and that the registrant is responsible for the actions of that person and is reasonably available if and when needed, even though such registrant may not be physically present at the site.

(2) An installer, septage hauler, or service provider shall comply with testing requirements established by the board of health. If a registration is revoked or suspended in accordance with paragraph (D)(6) of this rule, the registrant designated under paragraph (D)(1)(a) of this rule shall be required to again comply with testing requirements before a registration is reinstated or a new registration is issued by the board of health.

(3) An installer, septage hauler or service provider shall obtain a surety bond which provides coverage for all work performed on an STS in the Defiance County General Health District in the state of Ohio.

(a) The surety bond required for registration shall establish a contractual relationship between the principal, and the surety, and shall be executed by the applicant as principal and a surety company authorized to do business in the state as surety.

(b) The surety bond shall be for the benefit of any aggrieved party for damages incurred as a result of a violation of this chapter. For purposes of this rule aggrieved party means the local board of health where work was performed, property owner or the agent of the property owner who contracts with an installer, service provider or septage hauler and whose STS is not installed, altered, serviced, maintained or abandoned in compliance with the provisions of this chapter.

(c) The surety bond shall be issued to provide insurance coverage for the calendar year of the registration application for any work performed in the Defiance County General Health District. The surety bond shall provide that the aggregate liability of the surety for any and all breaches of the conditions of the bond shall in no event exceed the penal sum of the bond for each calendar year for which the bond is issued.

(d) If the surety bond for the registration is canceled, the registrant shall immediately submit to each board of health where a registration has been issued proof of a new registration bond in accordance with the

requirements of this rule. The surety company shall give thirty days written notice to the Defiance County Board of Health prior to the effective date of cancellation.

(e) An installer, service provider, and septage hauler shall maintain a surety bond of not less than fifteen thousand dollars for each category of registration or a single surety bond of not less than twenty-five thousand covering all categories of service provided.

(f) Any person who alleges to be an aggrieved party shall give written notification to the surety, the board of health where the work was performed, and the installer, service provider, or septage hauler as applicable within two years of the date of completion of the work on the STS. For purpose of this rule; date of completion will be defined as the date of the final inspection conducted prior to the system receiving final approval by the board of health. The board of health may conduct an investigation as necessary to determine if a violation of this chapter has occurred.

(4) A registration shall not be transferable and shall expire annually on the thirty-first of December.

(5) A registrant shall maintain and submit to the board of health such complete and accurate records and information that may be required for determining compliance with the rules.

(6) A registrant shall submit and be subject to the compliance and enforcement provisions established in rule 29-17 of this Chapter. When the board of health finds that a registrant is or has engaged in practices in violation of this chapter, the board of health shall provide the registrant with written notification of the alleged violation, indicate if the registration may be revoked or suspended, and afford an opportunity for a hearing if the registrant does not agree to voluntary compliance.

3701-29-05.2 Installers

(A) In addition to compliance with the general registration requirements in rule 29-05 and 29-5.1 of this Chapter, and as a specific condition of registration, an installer shall demonstrate competency through one of the following mechanisms:

(1) Achieve and maintain status as an installation qualified (IQ) contractor through the Ohio onsite wastewater association (OOWA), or

(2) Achieve and maintain status as a certified installer of onsite wastewater treatment systems (CIOWTS) through the national environmental health association (NEHA), or

(3) Achieve completion of at least three continuing education hours per calendar year through attendance of educational programs approved by the Defiance County Board of Health. Registrants shall provide proof of compliance with this paragraph at the time of initial registration and all subsequent renewals of registration. In the case of dual or multiple registrations as an installer, septage hauler, and/or service provider, required continuing education hours may apply to multiple registration categories as approved by the Defiance County Board of Health.

(B) A registered installer shall provide proof of compliance with any training, qualification, or certification conditions required for a component or system and shall comply with any installation instructions in accordance with an installation permit issued by the board of health.

(C) As a condition of registration, a registered installer shall warrant that the STS will be installed in accordance with all applicable rules and design specifications.

(D) In lieu of a design plan, a registered installer may submit a layout plan for an HSTS in accordance with paragraph (A) of rule 29-04.1 of this Chapter and in compliance with rule 29-11 of this Chapter.

3701-29-05.3 Service Providers

(A) In addition to compliance with the general registration requirements in rule 29-05 and 29-05.1 of this Chapter, and as a specific condition of registration, a service provider shall demonstrate competency through one of the following mechanisms:

(1) Achieve and maintain status as an Ohio waste hauler association (OWHA) qualified service provider, or
(2) Achieve and maintain certification in the national association of wastewater transporters (NAWT) O&M or inspector programs, or
(3) Maintain registration as an installer or septage hauler and attend all educational meetings provided by the Defiance County Health Department for service providers.

(B) A registered service provider shall provide proof of compliance with any training, qualification or certification conditions required by the manufacturer or distributor of a component or system and shall comply with O&M requirements in accordance with an installation permit or operation permit issued by the board of health. In addition to any such conditions or requirements, a service provider shall:

(1) Provide manufacturer and/or general O&M information to the owner of the STS as applicable, and to the board of health if required, either in writing or through reference to available resources.
(2) Understand the treatment processes, all O&M requirements, and servicing schedule for any STS for which the service provider offers and conducts O&M services.
(3) Conduct routine O&M services on schedule and according to requirements.
(4) Provide to the owner a report of the services conducted including the date of service and notation of any evidence of clear water infiltration, STS component deterioration, or other problem conditions.

(C) A registered service provider shall comply with any reporting or records retention requirements established by the board of health as authorized by this chapter.

3701-29-05.4 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. Any fee established for registration by law or authority of law shall accompany the application.

(C) The board of health shall issue a permit when the pertinent information indicates that the provisions of rules 29-01 to 29-21 of this Chapter can be met. The board of health may specify terms consistent with rules 29-01 to 29-21 on the permit governing the collection, transportation, and disposal of the contents of sewage tanks or privies.

(D) Each registration issued hereunder shall expire annually.

(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 29-01 to 29-21 of this Chapter.

(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 29-01 to 29-21 of this Chapter, the terms of the registration permit as required by the board of health in rule 29-05.4(C), or applicable federal, state, and local laws, 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.

(H) A septage hauler shall demonstrate competency through compliance with the following specific conditions of registration:

(1) Certification or continuing education requirements:

(a) Achieve and maintain certification as a vacuum truck technician through the national association of wastewater transporters (NAWT) or the Ohio waste hauler association (OWHA), or

(b) Attendance at Septage hauler meetings sponsored by the Defiance County Board of Health. Registrants shall provide evidence of compliance with this paragraph at the time of initial registration and all subsequent renewals of registration. In the case of dual or multiple registrations as an installer, septage hauler, and/or service provider, required continuing education hours may apply to multiple registration categories as approved by the board of health.

(2) Obtain a permit from the board of health for each vehicle used to haul septage, report tank capacity for each vehicle, allow each vehicle and its

equipment to be inspected if required by the board of health, and maintain vehicles in compliance with paragraph (I) of this rule.

(3) Manage the pumping, hauling, and disposal of septage in compliance with all applicable rules and regulations, and provide information to the board of health on the locations and methods of septage disposal.

(4) Provide to the owner a report of the services conducted including the date of service and comply with reporting requirements established by the board of health.

(I) Any vehicle and equipment used for septage hauling shall comply with the following:

(1) The company name and phone number is legibly written on the vehicle in words and numbers no less than four inches in height.

(2) All septage hauling equipment is maintained in proper operating condition and managed in a manner that prevents leakage or spills while in operation, transit, or storage.

Violation of these provisions as determined by the board of health may be cause for immediate suspension of a vehicle permit.

3701-29-06 Residuals Management

The collection, transportation, disposal, and land application of domestic septage shall be done in compliance with the Defiance County Health Department Septage Disposal Policy and Regulation (Appendix A) and 40 C.F.R. 503 (as published in the July 1, 2005 Code of Federal Regulations).

3701-29-07 Tanks, Pumps and Controls

(A) Tanks subject to this chapter shall be manufactured to be watertight and structurally sound including septic tanks, other treatment component tanks, dosing tanks, pump vaults, HSTS holding tanks and privy vaults, or other applicable HSTS components.

(B) The minimum capacity of septic tanks for an HSTS shall be:

(1) Single family dwelling;

(a) One to two bedroom - 1000 gallons;

(b) Three bedroom - 1500 gallons in one or two tanks or compartments;

(c) Four to five bedroom - 2000 gallons in two tanks or compartments;

(d) Six or more bedroom - 2500 gallons in two tanks or compartments.

(2) Two or three family dwelling - the sum of the volumes for each single family residential unit within the dwelling.

(C) In systems using two tanks, the septic tanks shall be connected in series and all sewage shall initially enter the first tank.

(D) The invert level of the inlet shall be not less than two inches above the liquid level of the tank.

(E) The inlet shall be provided with a vented tee or baffle 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 provided with a vented tee, or baffle which shall extend not less than six inches above and not less than eighteen inches below the liquid level of the tank. The outlet shall include an effluent filter device that retains solids greater than one sixteenth of an inch in size.

(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) Tank connections shall comply with the following specifications:

(1) Joint connections shall be watertight. Any joint sealants for concrete riser connections and tank seams shall be of a butyl rubber blend meeting material, manufacture, and physical requirements specifications of ASTM C 990.

(2) Inlet and outlet pipe connections to a tank shall be watertight. Connectors shall be provided by the tank manufacturer and shall meet material and manufacture specifications of ASTM C 923.

(J) The tank shall be installed with a minimum of two watertight risers extended to grade or above grade to provide access to the inlet and outlet of the tank. The connection of the riser to the tank and the connection of additional riser sections shall incorporate joint grooves or adapters to prevent lateral movement of the riser. Riser lids shall prevent infiltration of water and have secured covers.

(K) Dosing tanks shall be designed and manufactured in accordance with the following:

(1) Dosing tanks shall be easily accessible and have secured covers. All connections shall comply with applicable specifications under paragraphs (I)(1) and (I)(2) of this rule.

(2) Dosing tanks shall be selected to accommodate the volume below maximum drawdown, the maximum design dose including any drainback, and the design portion of the reserve and surge capacities as applicable. The HSTS design shall provide a reserve capacity for high water alarm events that is not less than the daily design flow. If time dosed, the HSTS design shall accommodate combined reserve and surge capacities of not less than one hundred and fifty per cent of the daily design flow.

(3) A septic tank second compartment or a second septic tank in series may be used for low volume dosing if all conditions under paragraph (K)(2) of this rule are met and a filtered step system or screened vault is used in lieu of, or in addition to, the effluent filter device required under paragraph (F) of this rule.

(L) Pumps shall meet the following specifications:

(1) A pump shall be rated for effluent service by the manufacturer and be a UL or CSA listed product.

(2) The pump shall be properly sized to meet the design flow rate and total dynamic head requirements specified for the HSTS.

(3) A quick disconnect shall be accessible in the pump discharge piping, with adequate lift attachments provided for removal and replacement of the pump and water level control assembly without having to either enter the dosing tank or pump the tank to lower the liquid level.

(M) A dosing siphon may only be used if the HSTS design requirements, including the design flow rate, dose capacity, and any pressure distribution parameters, can be met and maintained.

(N) Switches, controls, alarms, and electrical components shall be UL or CSA listed products, shall be installed in a manner easily accessible for routine monitoring and maintenance, and shall comply with the following:

(1) Switches and controls shall accommodate the minimum and maximum dose capacities of the specified distribution component.

(2) An elapsed time meter, counter, and/or flow meter shall be included in those HSTS having any dosing component. Time dosed HSTS shall include flow meters, counters, and control panels with programmable timers, manual pump operation,

test features, and as applicable, adjustable override settings for high water alarm conditions.

(3) Controls shall have both audible and visual alarms. Alarms and controls shall be on a separate frequently used circuit from dedicated circuits for each pump or motor. The board of health may require that the alarm be located in closer proximity to the dwelling or structure when the HSTS location is remote.

(4) Control panels and alarms shall be mounted in an easily accessible exterior location, shall be field-tested to assure compliance with the HSTS specifications, and shall include written instructions related to standard operation and alarm events.

(O) The installer shall assure that all electrical wiring meets the national electric code.

(P) HSTS components described in this rule shall be installed, operated and maintained as specified by the manufacturer or the approved plan.

3701-29-08 Effluent Quality Standards and Pretreatment Provisions

Effluent quality standards are established through various means including NPDES permit requirements, provisions in this rule, and under risk conditions that may warrant nutrient reduction. This rule addresses secondary or higher quality effluent from a pretreatment component. The provisions of this rule relate to the pretreatment component approval process and the selection of pretreatment components in compliance with effluent quality standards established in this rule or NPDES permit requirements when applicable.

(A) Aerobic type treatment systems shall comply with standard number forty as adopted by the national sanitation foundation board of trustees or standards accepted as equivalent by the Ohio department of health relating to materials, design, construction, performance, operation, maintenance, and safety of the system in effect at the time of acceptance of a system by the Ohio department of health, and the requirements of rules 29-01 to 29-21 of this Chapter.

(B) In addition to division (A) of this rule, aerobic type treatment systems shall comply with the following requirements:

(1) Where a final effluent sample cannot easily be obtained from within the system, a sampling well immediately following the system shall be provided. 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.

(2) The system shall be sized on the basis of one hundred-twenty gallons per day per bedroom.

(3) The system shall not be installed where the estimated daily flow exceeds the rated capacity at which the system was tested and approved.

(C) An aerobic type treatment system may be permitted for use in conjunction with a soil absorption component, or other means approved by the Ohio department of health totreat wastewater within an on-site STS.

(D) Prior to off-lot discharge a system must comply with the NPDES permit and be listed as approved by the T.A.C.

(E) The following effluent quality standards are performance standards applied in advance of effluent distribution to a soil absorption component, excluding effluent generated from a septic tank or other means of primary treatment. Pretreatment components approved in compliance with this rule are deemed to comply as applicable for effluent quality standards in this paragraph and are not subject to routine sampling for performance monitoring.

(1) BOD5/TSS standard – Compliance with this standard requires that effluent meet the thirty-day average of less than thirty milligrams per liter (mg/L) for five-day biochemical oxygen demand (BOD5) and total suspended solids (TSS) to utilize STS sizing criteria addressed in paragraph (F)(1)(a) of rule

29-11 of this Chapter.

(2) Fecal coliform standards – Compliance with the pathogen reduction standards listed below requires that effluent meet the thirty-day geometric mean of the standard to utilize the soil depth credits or other applicable provisions of rule 29-11 of this Chapter.

(a) less than or equal to ten thousand colonies/one hundred mL allows for a one foot soil depth credit

(b) less than or equal to one thousand colonies/one hundred mL allows for a two foot soil depth credit

(c) less than or equal to two hundred colonies/100 mL required for restricted surface application

(d) less than or equal to twenty colonies/one hundred mL required for unrestricted surface application

Alternate E.coli standards may also be used to determine compliance if approved by the director of health.

(3) Nutrient standards – Nutrient reduction standards for pretreatment components shall be established when there is a significant risk of nutrient contamination to surface or ground water due to risk factors identified in the site evaluation or risk due to proximity to local, state, or federally recognized nutrient sensitive environments.

(F) Pretreatment components shall be designed to have effluent sampling capability at the endpoint of the treatment process prior to dispersal or discharge. In addition, pretreatment components combining separate treatment and disinfection units shall provide effluent sampling capability between the treatment and disinfection units. Disinfection units shall not discharge disinfection residuals to a soil absorption component.

(G) Covers shall be secured and be easily accessible for monitoring and maintenance of the entire pretreatment component.

(H) Pretreatment components that are housed in a septic tank second compartment or a second septic tank in series shall assure that the pretreatment component design, or the STS design which includes the pretreatment component, prevents passage of solids greater than one sixteenth of an inch in size.

(I) Installation shall be conducted in a manner consistent with manufacturer or designer specifications to allow for proper O&M and monitoring of the pretreatment component. All pretreatment components shall have written O&M instructions with time lines for service and the registered installer shall provide the O&M instructions to both the owner and the board of health as a condition of installation approval.

(J) STS pretreatment components shall be operated, maintained, and monitored as necessary to assure compliance with any applicable effluent quality standards established in this rule or the final effluent limitations set forth in a valid NPDES permit for HSTS. Sampling of NPDES discharges shall be performed in accordance with the NPDES permit monitoring requirements.

(K) To assure that a pretreatment component is operated and maintained in accordance with O&M instructions for the life of the component, as a condition of the operation permit required in paragraph (B) of rule 29-04 of this Chapter, the board of health shall require the STS owner to obtain and maintain a service contract for any pretreatment component or components permitted for BOD5/TSS sizing reduction, pathogen reduction soil depth credit, nutrient reduction, or NPDES compliance.

3701-29-09 Surface Sand Filter Following an Aerobic Type Treatment System

When a surface sand filter is used as a component of an aerobic type treatment system it shall comply with the following requirements:

(A) The surface sand filter shall have a minimum filter area of thirty square feet.

(B) The effective size of the filter sand shall be six-tenths to one millimeter with a uniformity coefficient not to exceed three.

(C) The minimum depth of the filter sand shall be eighteen inches.

(D) A minimum of twelve inches of freeboard above the upper sand surface shall be provided.

(E) The effluent shall be distributed over the entire sand filter area.

(F) Dosing devices, if required, shall be provided with a pump having a minimum capacity of 3.75 gallons per minute.

(G) The sump for the dosing device shall have a minimum working volume of seventy-five gallons.

(H) The sand filter shall be covered with durable grating constructed of materials resistant to corrosion and decay, or surrounded by a fence to prohibit unwarranted or unauthorized entry.

(I) A sampling well with a minimum inside diameter of eight inches shall be installed on the surface sand filter discharge line within six feet of the filter bed, accessible from the surface of the ground, and provided with a secured cover.

(J) All discharging surface sand filters shall be approved by the T.A.C. and installed under an NPDES permit. If T.A.C. approval is contrary to (A) thru (I) above, the installation shall comply with the T.A.C. approved specifications.

3701-29-10 Installation Requirements for Soil Absorption and Percolation.

(A) Leaching systems utilizing soil absorption or percolation shall not be permitted where the depth to rock strata is less than four feet below the bottom of the proposed system.

(B) Leaching systems utilizing soil absorption or percolation shall not be installed where the texture, structure, or permeability of the soil is not suitable to provide internal drainage as determined during a site review and soil evaluation.

3701-29-10.1 Site and Soil Evaluation

This rule provides criteria and procedures for site and soil evaluation. Site and soil characteristics must be observed, described, and evaluated and area risk factors considered and identified. This information provides the basis for determining the feasibility of siting an STS and, if feasible, the conditions and limitations for sewage treatment and dispersal to be addressed in a layout plan or design plan.

(A) The board of health shall conduct a site review for any proposed STS installation to complete, or review the completeness of, the site and soil evaluation information required in this rule. Any person conducting a site and soil evaluation shall assess and record information in accordance with this rule. The board of health shall utilize the site and soil evaluation information to determine the feasibility of siting an STS in compliance with this chapter.

(B) The site and soil evaluation shall include the assessment and documentation of the following:

(1) Designation of the described soil boring and/or excavation locations and the information required in paragraphs (B)(3) and (B)(4) of this rule on the site plan required in rule 29-04 of this Chapter or on a preliminary site drawing adequate to provide the required site and soil evaluation documentation. A scaled site drawing 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, 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, or within fifty feet of the locations specified in paragraph (B)(3) of this rule; and

(e) North orientation arrow.

(2) Record of site and soil characteristics for each soil boring and/or excavation location designated in paragraph (B)(1) of this rule using USDA NRCS nomenclature on a standardized form provided y the Ohio Department of Health, 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 at least two 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.

(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 STS in accordance with this chapter.

(C) An installation permit for an STS shall not be approved by the board of health in the absence of an evaluation conducted in accordance with this rule:

(1) The board of health shall assure that a site and soil evaluation is conducted in accordance with this rule and shall:

(a) Determine compliance with soil absorption requirements in rule 29-11 of this Chapter, and

(b) Consider area risk factors related to the subdivision and lot review requirements in rule 29-03 of this Chapter and permitting requirements in rule 29-04 of this Chapter, including risks of pathogen or nutrient contamination to surface or ground water.

(2) The board of health may only waive the requirements of paragraphs (B)(2) and (B)(3) of this rule when soil treatment and/or dispersal is not feasible for an HSTS replacement for an existing dwelling due to the absence of adequate area for sizing the HSTS.

3701-29-10.2 Site Modification

The purpose of this rule is to address site modifications that may have already occurred on a site being considered for an STS and those site modifications that may be proposed to support STS installation or operation. This rule provides requirements and criteria related to fill material, surface water diversion, and existing and proposed subsurface drainage. While this rule allows the use of a diversion swale or interceptor drain as acceptable practice for use with any STS when needed, the rule does limit the use of a gradient drain or drainage system.

(A) Site modification involving fill material shall comply with the following:

(1) Prior to consideration of siting a soil absorption component in settled non-compacted fill material that over time may have developed the characteristics of soil, the material shall be thoroughly evaluated as to its treatment and dispersal capacity in conjunction with the soil and site evaluation required in rule 3701-29-10.1 of the Administrative Code.

(2) No fill material shall be present in the vertical separation distance below the infiltrative surface of the distribution system, other than that found suitable under paragraph (A)(1) of this rule or sand fill material specified for a soil absorption component in compliance with paragraph (C)(1) of rule 3701-29-11 of the Administrative Code.

(3) Fill material applied to the natural ground surface prior to the excavation of shallow in situ soil leaching trenches shall be a sandy texture soil or sandy loam soil capable of maintaining trench sidewall stability during installation and shall be applied in a manner that both protects and creates an interface with the underlying in situ soil.

(B) When siting an STS, an existing drain tile, drainage system, or other artificial subsurface drainage shall be avoided whenever possible with at least ten feet of horizontal separation from any component of an STS. If necessary, an existing drainage tile may be abandoned and rerouted to maintain at least the ten feet of separation and the abandoned section of tile shall be plugged. If existing drainage tile cannot be avoided or abandoned and rerouted and will be present in the area of a soil absorption component, the top of the drainage tile shall be considered a limiting condition subject to the two foot vertical separation distance in paragraph (A) of rule 3701-29-11 of the Administrative Code.

(C) When surface water runoff will infiltrate or cause ponding on or around STS components, diversion swales shall be designed to intercept and divert surface water with specifications indicated in the layout plan or design plan. STS components shall not be sited in depressions where surface water runoff cannot be properly managed through diversion. Diversion of surface water associated with an STS shall not negatively impact other property or storm water management.

(D) Any artificial subsurface drain designed to influence a STS shall comply with the

following as applicable:

(1) An interceptor drain shall be sited upslope of an STS when horizontal subsurface flow of water would impact a down gradient soil absorption component. The specifications for the interceptor drain, including the upslope distance from STS components and the interceptor drain outlet and outfall in accordance with paragraph (D)(3) of this rule, shall be included in the layout plan or design plan.

(2) A gradient drain or drainage system intended to impact a perched seasonal high water table shall only be used in accordance with paragraph (D) of rule 3701-29-12 of the Administrative Code.

(3) A drain outlet shall comply with the following:

(a) 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.

(b) 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 surface.

(c) If a gravity flow outlet cannot be achieved the drain shall include a pump vault accessible for sampling and of sufficient size and dose volume to maximize pump life. A pumped drain shall include a check valve if needed and an alarm in compliance with paragraph (N) of rule 3701-29-07 of the Administrative Code.

(d) 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.

(e) Written permission shall be obtained for placement of a drain outlet within a right-of-way or legally established public drainage improvement. A drain outlet associated with an STS shall be subject to the easement provisions of paragraph (T) of rule 3701-29-02 of the Administrative Code.

3701-29-11 Soil Absorption Provisions

This rule addresses technical standards for the siting and design of a soil absorption component. The rule assigns vertical separation distances to allow for treatment in the soil profile and provides options for sites where adequate depth of suitable soil is not available. This rule applies to all STS soil absorption components and includes provisions for applying soil depth credits, determining loading rates, and general design and installation requirements. The three supplemental rules for leach lines, mounds, and drip distribution do not substitute for the provisions in this rule nor do they preclude the use of any soil absorption component that may be designed to comply with this rule.

(A) Soil absorption components shall maintain a vertical separation distance of at least two feet to any limiting condition with the exception of 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 vertical separation distance of one foot of in situ soil shall be maintained. A vertical separation distance established in paragraph (A) of this rule may be reduced through the use of soil depth credits as specified in paragraph (C) of this rule, provided the minimum one foot vertical separation distance is maintained within suitable in situ soil. The area of the suitable in situ soil to be used for the soil absorption component shall be free of any limiting conditions within the horizontal and vertical distances designated for treatment and dispersal.

(C) Soil depth credits for infiltrative surface elevation, pretreatment pathogen reduction and/or timed micro-dosed distribution shall be available as follows and in accordance with this chapter. A one foot credit may be applied for those limiting conditions requiring a two foot vertical separation distance. For bedrock, rock and other fragments requiring a four foot vertical separation distance, soil depth credits may be used individually or in combinations not to exceed a maximum of two feet of credit:

(1) A one-to-one equivalency soil depth credit shall apply to soil absorption components that elevate the infiltrative surface of the distribution system to achieve vertical separation distance. Sand fill material in an elevated soil absorption component such as a mound system shall comply with applicable design specifications including the preparation of the sand soil interface and sand placement requirements. The loading rate for the sand fill material shall not exceed 1.0 gpd/ft2. Concrete sand meeting ASTM C 33 for fine aggregate may be used provided the material meets the following specifications:

(a) An effective size in the range of 0.15 to 0.30 mm;

(b) A uniformity coefficient in the range of four to six;

(c) No more than twenty per cent by weight is gravel greater than two mm; and

(d) No more than five per cent by weight is silt and clay less than 0.053 mm.

(2) Soil depth credits shall apply for pathogen reduction as specified for effluent meeting the fecal coliform standards and pretreatment component requirements of rule 3701-29-08 of the Administrative Code.

(3) A soil depth credit of one foot shall apply when distribution to the soil absorption area provides for timed micro-dosing controlled at each point of application not to exceed one quarter gallon per dose and one gallon per four square feet of infiltrative area for each point of application per day. A soil absorption component in compliance with the requirements of the Ohio Department of Health Drip Distribution systems shall be eligible for this soil depth credit when the provisions of this paragraph are met.

(D) The board of health, in its discretion, may only grant a variance to paragraphs (A) and (B) of this rule in accordance with this paragraph and rule 3701-29-20 of the Administrative Code. The board of health shall submit to the department of health separate lists of the addresses of all properties specific to paragraphs (D)(1) and (D)(2) of this rule in the same time frame as required for submission of variance information in accordance with paragraph (C) of rule 3701-29-20 of the Administrative Code.

(1) The board of health may grant a variance to the minimum one foot vertical separation distance required in paragraph (B) of this rule when the board of health cannot support limiting STS to sites having at least one foot of suitable in situ soil above a perched seasonal high water table due to the prevalence of such conditions. If such a variance is granted, the following provisions shall apply:

(a) Sand fill requirements for use in applying soil depth credits for elevation shall provide a minimum vertical separation distance of at least one foot within elevated sand fill and suitable in situ soil.

(b) Distribution requirements shall include timed dosing and minimized dose volumes to attenuate peak flows and promote treatment. The STS design shall provide an application rate that distributes the peak daily design flow to the infiltrative surface at no greater than six square feet per point of dispersal with each dose not to exceed one eighth of the daily design flow distributed proportionally over a twenty-four hour period per day

(c) A gradient drain intended to facilitate the subsurface flow of a perched seasonal high water table may be permitted but shall not allow for a reduction in the length of the soil absorption component in accordance with paragraph (F)(2) of this rule. A gradient drain for an STS permitted by variance in accordance with paragraph (D)(1) of this rule shall be no closer than a horizontal distance of four feet from the closest edge of the infiltrative surface area of the distribution network and shall have a horizontal separation from any sand fill material of at least one foot of undisturbed in situ soil.

The outlet and outfall of the gradient drain shall comply with rule 3701-29-12 of the Administrative Code.

(d) If the board of health chooses to grant a variance for the perched seasonal high water table conditions described in paragraph (D)(1) of this rule, all other requirements of this chapter shall apply and the board of health shall require a service contract for at least annual O&M as a condition of the variance.

(2) The board of health may grant a variance reducing the vertical separation distances required in paragraph (A) of this rule for perched seasonal high water tables and associated restrictive soil layers when the board of health contends that allowing the use of HSTS specified by variance on sites with these two related limiting conditions will provide sufficient treatment to warrant a reduction in vertical separation distance and to protect public health and the environment. Any such variance shall only be approved by the board of health in accordance with the following provisions and performance requirements:

(a) The infiltrative surface of the soil absorption component shall be installed at or above the perched seasonal high water table and above the associated restrictive soil layer.

(b) A gradient drain or drainage system permitted by variance in accordance with paragraph (D)(2) of this rule that is intended to influence the perched seasonal high water table shall be considered a component of the HSTS and shall comply with the following as applicable:

(i) A gradient drain intended to facilitate the subsurface flow of a perched seasonal high water table shall be no closer than a horizontal distance of eight feet from the closest edge of the infiltrative surface and shall be placed no deeper than the restrictive layer.

(ii) A drainage system designed to lower a perched seasonal high water table shall only be approved by variance when the HSTS design includes the drainage system specifications, projected drawdown below the soil absorption component based on the peak daily loading rate, annual precipitation, and soil characteristics, and a means to measure the depth of the water table at multiple locations within the area of the soil absorption component.

(iii) The outlet and outfall of a drain shall comply with rule 3701-29-14 of the Administrative Code.

(c) In accordance with the sampling protocol established by the department of health, sampling shall be conducted at least twice annually by the board of health for every third installation approved in the first year following the effective date of this rule. In subsequent years, the department of health shall determine representative random sampling requirements based on the

statewide variance information submitted in accordance with paragraph (D) of this rule. Sampling costs associated with this paragraph shall be incorporated in STS program fees rather than charged to individual STS owners. Samples shall be collected during the winter and/or spring when saturated soil conditions are present due to the presence of the perched seasonal high water table. An HSTS approved under the conditions of paragraph (D)(2) of this rule shall meet a treatment performance standard of less than two hundred fecal coliform colonies per one hundred mL at sampling locations as follows:

(i) At the outlet of a drain permitted in accordance with paragraph (D)(2)(b) of this rule or a sampling well installed in advance of an inaccessible drain outlet in accordance with department of health requirements.

(ii) In the case where a drain is not used, sampling ports shall be installed in accordance with department of health requirements at a horizontal isolation distance of ten feet from the HSTS soil absorption component.

(d) If the board of health chooses to grant a variance for the perched seasonal high water table and restrictive soil layer conditions described in paragraph (D)(2) of this rule, sampling results shall be reported annually to the department of health in the same time frame as required for submission of variance information in accordance with paragraph (C) of rule 3701-29-20 of the Administrative Code.

(E) The following requirements for effluent distribution to the soil absorption component shall be met, as applicable:

(1) Gravity distribution of effluent shall be used in accordance with this chapter and any referenced design specifications in accordance with paragraph (G)(6) of this rule and in compliance with the following conditions and limitations:

(a) 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.

(b) Effluent from a pretreatment component meeting the BOD5/TSS soil loading rate selected in accordance with paragraph (F)(1)(a) of this rule may be distributed by gravity to in situ soil having at least two feet of vertical separation distance from the shallowest limiting condition.

(c) Effluent from a pretreatment component meeting the one foot pathogen reduction credit may be distributed by gravity to in situ soil having at least two feet of vertical separation distance to bedrock, rock, and other fragments provided there are no shallower limiting conditions.

(d) Effluent meeting the BOD5/TSS and/or pathogen reduction standards in rule 3701-29-08 of the Administrative Code shall not be applied by gravity distribution to the infiltrative surface of in situ soils that have loamy sand or coarser textures and allow rapid access to ground water.

(2) Uniform distribution of effluent across the infiltrative surface of the soil absorption component shall be used in accordance with this chapter and any referenced design specifications in accordance with paragraph (G)(6) of this rule and in compliance with the following conditions and limitations:

(a) Uniform distribution shall be required when applying effluent to the sand fill infiltrative surface of an elevated soil absorption component.

(b) Uniform distribution shall be required when using pretreatment component effluent quality meeting the BOD5/TSS and/or pathogen reduction standards in rule 3701-29-08 of the Administrative Code except as specified in paragraph (E)(1) of this rule.

(c) The means of distribution may include but are not limited to pressure distribution in a low pressure pipe system for leaching trenches or mounds and drip distribution in accordance with this chapter.

(3) Surface application of effluent meeting fecal standards under paragraphs (E)(2)(c) and (E)(2)(d) of rule 29-08 of this chapter shall comply with this chapter and any referenced design specifications in accordance with paragraph (G)(6) of this rule.

(F) 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, including basal loading rates for sand fill systems, shall be based on effluent quality and on soil structure, texture, and consistence and shall be justified through reference to soil and site evaluation information and the loading rate estimates referenced in the appendix to this chapter.

(a) The selection of soil loading rates based on effluent quality shall be limited to a rate for septic tank effluent or a rate for effluent meeting the BOD5/TSS standard under paragraph (E)(1) of rule 3701-29-08 of the Administrative Code.

(b) The structure, texture, and consistence of the most limiting in situ soil layer within the vertical separation distance shall be used to determine a soil loading rate.

(2) Linear loading rate (LLR) estimates shall be used to determine the required 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 the appendix to

this chapter. If site and soil conditions indicate horizontal subsurface flow, the minimum horizontal isolation distances shall be increased in undisturbed areas around the perimeter or downslope of the soil absorption component as necessary for adequate dispersal and prevention of surface seepage.

(G) General requirements for designing an STS 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 limitations specified in this chapter or applicable design manuals or product specification as referenced in accordance with this paragraph.

(2) Observation ports shall be provided to monitor the infiltrative surface of the soil absorption component as required in this chapter and when determined to be necessary by the board of health.

(3) Designs shall prevent damage to components or operational failures due to freezing temperatures.

(4) For short term repairs or resting of a soil absorption component, easily accessible shut-off mechanisms shall be provided to allow for segregation of flows to portions of the soil absorption component. Examples of such mechanisms include but are not limited to shut-off valves at a mound manifold split or drop box plugs for serial distribution leach lines.

(5) Pressure distribution networks shall have a means of measuring design pressure or operating head for both initial baseline measurement and future monitoring of orifice clogging and other network operations and shall include a means of scouring or flushing distribution laterals.

(6) The design plan or layout plan for a soil absorption component may include referenced design manuals, 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. Unless an available internet source for any referenced manual or specification is included in a design plan or layout plan, the design manual, proprietary soil absorption component specifications, or alternative aggregate product specifications shall accompany the plan. Inclusion of referenced resources does not substitute for critical information or calculations required for board of health approval of a design or layout plan.

(H) Installation shall be conducted by a registered 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, such as a trench or basal area, shall not proceed when there is a risk of smearing or compaction as evidenced by a deformability test, commonly referred to as ribboning, or other means established by the board of health.

(2) Proprietary soil absorption components or alternative aggregate product

specified in an approved design plan or layout plan shall be installed in accordance with the manufacturer's installation instructions or product specifications provided these do not conflict with this chapter.

(3) Testing of any pressure distribution components shall be conducted prior to installation approval by the board of health. Flow rate and distal pressure or operating head shall meet specifications and a baseline shall be recorded for future performance monitoring.

(4) Baseline records and any soil absorption component O&M instructions shall be provided by the installer to both the owner and the board of health as a condition of installation approval.

(I) STS soil absorption components shall be operated, maintained, and monitored as required by the operation permit issued by the board of health to assure compliance with the requirements of this chapter. A registered service provider offering a service contract for an STS that includes a soil absorption component along with the component or components targeted for service, shall also service and/or monitor the soil absorption component.

(J) Total field requirement shall be divided into two equal sections and provided with a diversion device equipped to provide alternate flow to each section of the field. The diversion device and inspection ports shall be brought to grade and shall be provided with secured covers.

(K) Leaching field absorption area requirements for household sewage disposal systems shall be adequate to prevent water pollution or a nuisance, except those sites eliminated by rules 3701-29-01 to 3701-29-21 of the Ohio Sanitary Code.

(L) The minimum distance between any leaching lines shall be six feet.

(M) The minimum distance between any leaching line and any drain line located on the lot shall be eight feet.

(N) A leaching trench shall have a minimum of twelve inches of clean gravel or stone fill, extending at least two inches above and six inches below the leaching line; such fill shall be three-fourths inch to one and one-half inches in size.

(O) A leaching trench shall have a minimum width of eight inches. The depth shall be a minimum of eighteen inches but not more than thirty inches.

(P) A leaching line shall have a maximum length of one hundred-fifty feet.

(Q) A leaching line shall have a minimum diameter of four inches and shall have a relatively level grade. The grade shall not exceed a fall of three inches in fifty feet.

(R) The top of the gravel stone fill shall be covered with a pervious material such as

untreated paper or a two inch layer of hay, straw, or similar material before being covered with earth.

(S) The land surface shall be graded so as to exclude surface drainage from the household sewage disposal site.

(T) Siting conditions for gravity fed leaching trench soil absorption components with either parallel or serial distribution shall comply with the following and any other provisions of this chapter.

(1) Leaching trench soil absorption components are subject to this chapter including the following conditions:

(a) Paragraph (B) of this rule shall only apply to leaching trench soil absorption components with gravity distribution from a septic tank or pretreatment component in compliance with this chapter and the provision in paragraph (E)(1) of rule 29-10.2 of this chapter.

(b) Site modification and siting limitations for leaching trench soil absorption components include but are not limited to the following:

(i) 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 in compliance with paragraph (C) of rule 29-12 of this chapter may be used upslope of a leaching trench soil absorption component.

(ii) A leaching trench shall not be sited on slopes greater than fifteen percent unless the STS plan includes special installation criteria.

(iii) 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 STS plan.

(U) A registered installer may layout plan for a leaching trench HSTS and it shall comply with the rules of this chapter. While a design plan prepared in accordance with paragraph (B) of rule 29-04.1 of this chapter may vary from the requirements of this paragraph, a leaching trench soil absorption component layout plan prepared by a registered installer shall comply with the following:

(1) The soil loading rate and linear loading rate shall be determined from the site and soil evaluation information required in rule 29-10.1 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 thirty inches in width. The linear loading rate shall be used to establish the minimum length of the soil absorption area parallel to the natural surface contours. This minimum 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.

(2) A pipe and gravel leaching trench shall have a minimum of twelve inches of gravel extending four inches above and four inches below a four inch perforated pipe. Gravel shall be washed or thoroughly rinsed to avoid the accumulation of fines in the trench and shall meet an AASHTO M 43 sizing for coarse aggregate with at least seventy per cent by weight in the range of three-fourth to one and one-half inch. Use of other leaching trench material such as alternative aggregate or proprietary gravelless and chamber components shall be specified in accordance with paragraph (B) of rule 29-04.1 of this chapter.

(3) 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 and no less than two inches from the natural surface of the ground and shall be determined by the vertical separation distance to the limiting conditions. For shallow trenches with sidewalls extending above grade, the layout plan shall specify the trench materials or components and any fill or backfill specifications. Any fill placed prior to trench excavation shall be in compliance with rule 29-10.2 of this chapter.

(4) 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. The distance shall be increased when trench width exceeds twenty-four inches.

(5) The means of flow distribution and management in accordance with paragraph (F) of this rule shall include:

(a) Specification of either parallel or serial distribution with components to be used having access to grade and a mechanism for flow diversion.

(b) Distribution component connections between the tank or another distribution component and to a leaching trench shall be watertight and shall include properly supported rigid solid wall pipe to prevent settling and damage under normal loads and operating conditions.

(c) A means for determining the liquid level or capacity of a leaching trench shall be provided. If an inspection port is used or required by the board of health, the port shall be anchored and accessible with at least a four inch opening and a removable watertight cap.

(6) 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.

(7) 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.

(V) In addition to the applicable installation requirements of this chapter, a leaching trench installation shall comply with the following requirements:

(1) 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.

(2) Prior to excavation the registered installer shall check all elevations in the layout plan relative to the established benchmark including the surface contour and proposed bottom elevation of each trench and the flow line elevation of other STS components to assure proper flow through the system.

(3) When soil conditions are suitable, leaching trenches shall be installed to meet all of the specifications and requirements of this chapter. Leaching trench material shall be placed in a manner that prevents compaction of the infiltrative surface. Open trenches shall be avoided for any length of time to prevent impacts from sediments in runoff and windblown silt.

(4) Suitable backfill and cover material as required in this rule or proprietary component specifications shall not be compacted and shall allow for settling unless otherwise specified by the proprietary product installation instructions. The completed STS area shall be protected from erosion through surface water diversion and provision of suitable vegetative cover, mulching, or other specified means of protection.

(W) In conjunction with any operation permit conditions or O&M management provisions required in this chapter or by the board of health, the O&M of a leaching trench STS shall include but is not limited to monitoring the liquid level or capacity of the leaching trench soil absorption component, management of flow diversion mechanisms for the purpose of resting portions of the soil absorption area, and checking for surface water infiltration or clear water flows from the dwelling or structures into the STS or onto the soil absorption area.

3701-29-12 Drainage System

(A) A drainage system may be provided in soil subject to a seasonally high ground water table.

(1) A gradient drain shall be installed not less than six inches below the leaching trench bottom, and shall be at least eight feet from the center line of any leaching line.

(2) A gradient drain shall have an inspection well accessible from the surface of the ground and shall be provided with a secured cover. The well shall have a minimum inside diameter of eight inches and shall be on the discharge line adjacent to the leaching system unless an open out-fall is present on the property.

(C) When off lot disposal of drainage system discharge requires crossing 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.

3701-29-13 Leaching Pit

A leaching pit is prohibited.

3701-29-14 Subsurface Sand Filter

A subsurface sand filter shall not be permitted for a new or replacement STS unless NPDES requirements are met.

3701-29-15 Privies and Holding Tanks

The purpose of this rule is to provide for the storage of household sewage under limited circumstances. The board of health determines the conditions and circumstances under which a privy or holding tank may be permitted. It is expected that the use of privies and holding tanks will be infrequent and that holding tanks would generally be used for temporary periods, such as when sanitary sewers would be accessible within a short timeframe or the installation of a soil absorption component is delayed due to site conditions.

(A) A holding tank or privy vault shall only be installed by a registered installer when authorized by the board of health in compliance with this chapter.

(B) A privy shall only be permitted and installed as an HSTS under the following limited conditions:

(1) All plumbing or drain connections to the privy vault are prohibited.

(2) The vault shall comply with the requirements of paragraph (A) of rule 29-11 of this Chapter and shall have a capacity of not less than five hundred gallons.

(3) The location of the vault shall comply with all isolation distance requirements set forth in paragraphs (E) and (F) of rule 29-07 of the Administrative Code.

(4) The superstructure shall be vented and minimize entry of insects or animals.

(C) A holding tank shall only be permitted as an HSTS under the following limited conditions when a variance has been granted by the board of health in compliance with rule 29-20 of this Chapter.

(1) A holding tank shall comply with the requirements of paragraph (A) of rule 29-11 of the Administrative Code.

(2) A holding tank shall be located in compliance with paragraphs (E) and (F) of rule 29-07 of the Administrative Code and shall be easily accessible for frequent pumping.

(3) The size of the holding tank shall take into account the design flow criteria established under paragraph (A) of rule 29-10 of the Administrative Code. The board of health shall establish a required frequency of pumping for the tank as a condition of the variance. As an alternative to a scheduled pumping frequency, a high water alarm may be installed in compliance with paragraph (N)(4) rule 29-11 of this Chapter. A board of health that has taken responsibility for SFOSTS in accordance with paragraph (A) of 29-1.2 of this Chapter shall not permit a holding tank for an SFOSTS. Except as permitted for HSTS in accordance with this paragraph, holding tanks are subject to the requirements of OEPA under rule 3745-42-11 of the Administrative Code.

(D) The owner of a privy or holding tank shall have a registered septage hauler remove the contents of the vault or tank before the capacity is exceeded. As a condition of the operation permit required in paragraph (C) of 29-04 of this Chapter, the board of health shall require the contents of a privy or holding tank be removed in accordance with this rule and in compliance with any other operation permit or variance conditions established by the board of health.

3701-29-16 Sewage Source, Building Sewer, and Related Fixtures

This rule addresses the flow and waste strength characteristics that will vary depending on the source of the sewage to be treated by an STS. Also considered in this rule are other conditions that may impact waste strength and flows to a building sewer. All such conditions need to be identified and understood prior to considering the design of an STS.

(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.

(F) The owner or owner's agent shall provide information on the sources of sewage from the dwelling or structures to be served by an STS for the board of health determination of compliance with this rule. The board of health may require submission of building and plumbing plans including plumbing fixture details and other information as needed.

(G) The daily design flow estimate for an STS shall comply with the following general provisions unless otherwise specified in this chapter:

(1) Except as provided in paragraphs (G)(3) and (G)(4) of this rule, the daily design flow for an HSTS shall be a peak flow of one hundred twenty gallons per day per bedroom.

(2) The daily design flow for an SFOSTS shall be determined in accordance with the design flow table established by OEPA. For an SFOSTS with periodic large daily flows that are stored to avoid exceeding the one thousand gallon per day treatment limit, the peak daily design flow shall be greater than the average of the daily flows and no actual daily flow shall exceed three thousand five hundred gallons.

(3) An increase in the daily design flow estimate for an STS shall be required by the board of health when there is an indication that the flows established in accordance with paragraph (G)(1) or (G)(2) of this rule will be exceeded. Any required increase in daily design flow shall be documented on the installation permit and operation permit.

(4) A reduction in daily design flow may be approved by the board of health when the information submitted indicates conditions that justify reduced flow such as limited fixtures, waterless toilets, in-house graywater recycling,

or other circumstances that may warrant a reduction in daily design flow. Justification for a proposed reduction in daily design flow shall be included in the site review application and, if approved, shall be documented on the installation permit and operation permit.

(H) The waste strength estimate for an STS shall be determined for design purposes in accordance with the following general provisions unless otherwise specified in this chapter:

(1) Sewage generated by a dwelling served by an HSTS shall be judged to be typical residential sewage following primary treatment when the total suspended solids (TSS) content is not expected to exceed one hundred and fifty milligrams per liter (mg/L), the five-day biochemical oxygen demand (BOD5) is not expected to exceed two hundred and fifty milligrams per liter (mg/L), or the contents of fats, oils, and greases (FOG) is not expected to exceed twenty five milligrams per liter (mg/L). Consideration shall be given to eliminating the use of garbage disposals in kitchen sinks to assist in maintaining residential waste strength below these maximum levels and to reduce residuals and the frequency of septage removal.

(2) Any waste prohibited by UIC regulations for introduction into an SFOSTS shall be source separated and regulated by OEPA.

(3) When the waste strength for an STS is expected to exceed or has exceeded the typical residential waste strength described in paragraph (H)(1) of this rule:

(a) The design plan shall include loading calculations using values in accordance with the loading table established by OEPA. Any variation from the loading table values shall be justified in the design plan including waste strength characterization information. Board of health approval for any reduction or increase in loading estimates shall be documented on the installation permit and operation permit.

(b) Additional pretreatment shall be provided to assure that the STS soil absorption component receives a waste strength within the range of typical residential sewage. The method of pretreatment to reduce waste strength shall be justified in the design plan, reviewed by the board of health for compliance with this chapter, and, if approved, shall be documented on the installation permit and operation permit.

(c) When an external grease interceptor is a component of the proposed pretreatment to reduce waste strength, the external grease interceptor shall be located, designed, and installed in a manner that will allow access for inspection and maintenance, including the following:

(i) A source segregated inlet line, when feasible;

(ii) Sized to account for flow volume and temperature; and

(iii) Watertight access risers extended to grade with secure covers.

(I) Building sewers shall carry all sewage flow from the dwelling or structure, including graywater or other segregated sewage, and shall be connected to an STS in compliance with this chapter. Building sewers shall comply with the following:

(1) The elevation of a building sewer shall be aligned to accommodate the plan elevations of the subsequent STS components and shall be properly bedded in native soil or sand at a uniform grade of not less than one per cent or one eighth of an inch per foot.
(2) A building sewer shall be a minimum of ten feet from any household water supply source and water service line, unless otherwise specified in applicable state or local regulations.
(3) A building sewer shall be watertight, have a minimum diameter of four inches and be constructed of durable material conforming to ASTM D 2661 for ABS plastic pipe or ASTM D 2665 for PVC plastic pipe (type DWV) or equivalent. Pipe, fittings, and joining materials shall be chemically and physically compatible.
(4) Cleanouts shall be required in a building sewer at any turn in the pipe greater than forty-five degrees, outside the structure, and at the point a building sewer pipe exceeds one hundred feet and at every one hundred feet interval thereafter.
(5) A building sewer shall allow for proper venting of STS components. Traps shall not be installed in a building sewer.
(6) Casing or other form of protection shall be provided for any portion of a building sewer located in areas of vehicle traffic or when the building sewer is subject to other loads that may cause damage.

3701-29-17 Education, Inspection, Compliance, and Enforcement

This rule and its supplemental rules address the compliance and management responsibilities of the board of health and promote an approach that allows for flexibility. This approach encourages a comprehensive view of management where the board of health can support owner responsibility, STS professionals' accountability, and partnerships with other entities to expand the necessary oversight of decentralized wastewater infrastructure. For new and replacement STS, the governing statute provides the authority and direction to proactively address STS performance and public health protection. This can be achieved through education, outreach, and informing and holding accountable those responsible for code compliance rather than depending primarily on reactive enforcement and public health nuisance abatement.

(A) No household sewage disposal system or part thereof shall be covered or put into operation until the system has been inspected and approved by the board of health.

(B) The board of health shall promote compliance with this chapter through educational outreach including but not limited to the following:

(1) Proactively provide information to owners and other parties on applicable areas of responsibility for compliance with this chapter.

(2) Provide O&M instructions to the STS owner in conjunction with the board of health operational inspection required in paragraph (K) of rule 3701-29-04 of the Administrative Code.

(3) Provide referrals to department of health and manufacturer internet sites for O&M instructions that are required by law to be posted, or upon request, directly provide a copy of these O&M instructions.

(C) The board of health shall at a minimum provide owners with information on financial assistance resources, and may promote or participate in local and state financial assistance programs to support STS repair and replacement or connection to sanitary sewers and STS abandonment including but not limited to the following:

(1) Complete an HSTS management plan to access state revolving loan funds.

(2) Establish a local revolving or low interest loan program.

(3) Encourage targeted community development funding.

(D) The board of health shall provide the oversight necessary to determine compliance with this chapter. The board of health may at any reasonable time inspect any STS or part thereof, conduct sampling, collect data, inspect a proposed STS site, or perform other activities necessary to assure compliance with this chapter. The board of health shall review required submittals and reports or other information to determine compliance including but not limited to the following:

(1) Site review and permitting information required by this chapter.

(2) Records or reports required as a condition of installer, septage hauler, or service provider registration.

(3) Sampling and other monitoring data required as a condition of an NPDES permit issued by the OEPA and/or an operation permit issued by the board of health.
(4) Information on STS performance gathered during a board of health inspection.

(D) STS shall be operated and maintained in compliance with this chapter. The board of health shall conduct O&M management in accordance with rule 3701-29-18 of the Administrative Code and shall conduct residuals management in accordance with rule 3701-29-06 of the Administrative Code.

(E) No person shall violate Chapter 3718. of the Revised Code, this chapter, orders issued pursuant to these chapters by the board of health, or the conditions of a registration or permit issued in accordance with this chapter. Upon determining noncompliance, the board of health shall notify the owner or other responsible party of the determination of noncompliance. The board of health notification shall specify any necessary corrective action and the time line for compliance as applicable. Emergency orders and enforcement action shall be conducted in accordance with sections 3718.09, 3718.10, and 3718.99 of the Revised Code. The board of health shall provide for due process protection in its implementation of compliance and enforcement duties and shall provide opportunity for compliance hearings and appeal of board of health orders.

3701-29-18 O&M Management

This rule promotes a proactive and preventive approach to managing STS performance. The operation permits required in statute and rule serve as the legal means to establish O&M requirements, and in some cases, mandatory service contracts. The "USEPA Voluntary National Guidelines for Management of Onsite and Clustered (Decentralized) Wastewater Treatment Systems (2003)" provides a resource for assessment of state and local management programs.

(A) The board of health shall implement an O&M management program in compliance with Chapter 3718. of the Revised Code and this chapter. An O&M management program shall include but is not limited to the provisions of this rule such that any additional provisions of an O&M management program established by the board of health shall not be considered as more stringent standards subject to division (B) of section 3718.02 of the Revised Code:

(1) STS permit records shall be organized by location providing a history of siting, design, installation, alteration, operation, monitoring, maintenance, and abandonment activities. The results of any O&M monitoring or reporting required by this chapter shall be maintained in the STS permit record.

(2) The board of health shall comply with operation permit requirements in rule 3701-29-04 of the Administrative Code.

(3) Tracking of activities and requirements associated with the conditions of an operation permit or this chapter shall be required, including but not limited to:

(a) Dates of board of health operation inspections including the inspection required in paragraph (K) of rule 3701-29-04 of the Administrative Code.

(b) Time line for the expiration and renewal of an operation permit as applicable.

(c) Record of owner compliance with service contract requirements in accordance with this chapter and the operation permit conditions established in paragraph (D) of rule 3701-29-04 of the Administrative Code.

(4) O&M in accordance with manufacturer’s instructions shall be met when required as a condition of an operation permit or this chapter. A person may demonstrate the required O&M in lieu of having a board of health inspection conducted when an inspection is otherwise required. This may include a person securing a service contract or being certified for O&M service by a manufacturer in lieu of a required board of health inspection for which an inspection fee is charged. This shall not preclude the board of health from conducting compliance inspections for general oversight purposes nor from requiring payment of an operation permit fee for O&M management.

(B) When establishing O&M management provisions in addition to those required in this chapter, the board of health shall consider the following

(1) Increased levels of management related to risk conditions associated with higher STS density, STS complexity and reliability, and the location of STS in areas of high risk for surface or ground water contamination or where there are existing unsanitary conditions due to a high incidence of STS substandard performance or failure.
(2) Recording of operation permit conditions, service contract requirements, or other O&M management information on property deeds as a means to provide notification upon transfer of property served by an STS.
(3) Utilization of private sector professionals and responsible management entities or designation of qualified agents to conduct monitoring or other O&M management responsibilities when the board of health provides oversight to assure compliance with this chapter.
(4) Inclusion of alternative O&M management mechanisms such as web-based reporting, remote telemetry, and use of publicly and privately available database programs to support O&M tracking requirements.

(C) The O&M management program shall include additional provisions when the board of health has expanded its local authority through the regulation of SFOSTS in accordance with this chapter and/or the oversight of semipublic disposal systems in accordance with section 3701.085 of the Revised Code.

3701-29-19 STS Abandonment

This rule establishes the procedures for the proper abandonment of an STS. The purpose is to assure the final removal of sewage residuals and to prevent hazards that could occur when tanks or other components are no longer in use.

(A) Any person who is no longer using an STS or an applicable component of an STS shall properly abandon all tanks, dosing tanks, and/or pretreatment components that are no longer in use in accordance with this rule.

(B) All tanks, dosing tanks, and/or pretreatment components shall have the sewage contents pumped and removed by a registered septage hauler. If there is a need to remove solid materials such as filter media or other STS components, these shall be taken to an approved solid waste disposal facility or shall be managed in a manner that prevents a public health nuisance and contamination of surface or ground water.

(C) Upon removal of the contents of the tank, dosing tank and/or pretreatment component, the top shall either be completely removed or shall be collapsed and at least one side collapsed to prevent containment of water in the abandoned tank or component. 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.

(D) Any person who abandons an STS system shall notify the board of health in writing that the STS has been properly abandoned, and shall provide the following information that shall be retained by the board of health:

(1) The owner and location of the abandoned STS and the date of abandonment.

(2) The name of the registered septage hauler and the name of the person or registered installer that performed the STS abandonment.

(3) The manner in which the tank, dosing tanks, and/or pretreatment components were abandoned or removed.

(E) When a board of health has taken responsibility for SFOSTS in accordance with paragraph (A) of rule 29-01.2 of this Chapter, the board of health shall notify the OEPA within sixty days when an SFOSTS that was previously permitted to be installed by the OEPA has been abandoned in accordance with this rule.

3701-29-20 Hearing

The board of health shall grant a hearing to any person affected or aggrieved by rules 29-01 to 29-21 of this Chapter.

3701-29-20.1 Variances and Related Provisions

(A) Any person who believes that a variance from the rules of this chapter is necessary shall make application in writing to the board of health, specifically stating the proposed variance from the particular rule or rules.

(B) The board of health may grant a variance from the requirements of this chapter as shall not be contrary to the public interest, where a person shows that because of practical difficulties or other special conditions compliance with this chapter will cause unusual and unnecessary hardship, and that no other technically feasible or economically reasonable means of compliance exists in rule. Financial impact alone may not form the basis for a variance under this rule. No variance shall be granted that will defeat the spirit and general intent of this chapter, or be otherwise contrary to the public interest or adversely affect the public health or cause contamination of the environment.

(C) STS or STS components differing in design or function from systems or components, the use of which is authorized under this chapter, may qualify for approval by the director of health subject to the review and recommendation of the STS technical advisory committee established pursuant to division (A) of section 3718.03 of the Revised Code. A manufacturer seeking approval for use of a system or component that differs in design or function from systems or components authorized under this chapter shall submit an application and information as required in division (A) of section 3718.04 of the Revised Code. The system or component shall be reviewed by the STS technical advisory committee and the department of health in accordance with the standards and guidelines developed under division (F)(1) of section 3718.03 of the Revised Code. The STS technical advisory committee shall advise the director on approval or disapproval of such systems or components. The director of health shall approve or disapprove the use of systems or components submitted for review and shall provide notification of the approval or disapproval in accordance with section 3718.04 of the Revised Code. The director of health shall utilize a department of health web site listing to notify boards of health and interested parties of those systems and components approved under this paragraph and section 3718.04 of the Revised Code.

(D) Household sewage disposal system components or household sewage disposal systems differing in design or principle of operation from those set forth in rules 3701-29-01 to 3701-29-21, may qualify for approval as a special device or system; provided, comprehensive tests and investigations show any such component or system produces results equivalent to those obtained by sewage disposal components or systems complying with such regulations. Such approval shall be obtained in writing from the director of health. This shall not imply or construe that said systems will be approved for every condition in Defiance County.

3701-29-21 Small Flow On-Site Sewage Treatment System

(A) "Small flow on-site sewage treatment system (SFOSTS)" means a system, other than a household sewage disposal system, that treats not more than one thousand gallons of sewage per day and that does not require a national pollutant discharge elimination system permit issued under section 6111.03 of the Revised Code or an injection well drilling or operating permit issued under section 6111.043 of the Revised Code. A structure or structures served by a SFOSTS shall include but is not limited to:

(1) Vacation rental cabins with multiple cabins served by an SFOSTS.

(2) A dwelling and an ancillary building both served by an SFOSTS where the ancillary building may be open to the public and is used by more than the residents of the dwelling.

(3) Two dwellings, including arrangements such as a dwelling and a detached garage with living space.

(4) A dwelling with a home business that may be open to the public, generates sewage in excess of the daily design flow or waste strength for an HSTS, and has no wastewater going to the SFOSTS other than sewage as defined in this rule.

(B) Rules 3701-29-01 to 3701-29-21 of the Administrative Code apply to SFOSTS that are under the jurisdiction of a board of health in compliance with this paragraph.

(1) The board of health has determined that all applicable provisions of the rules related to SFOSTS can be fully implemented under its authority.

(2) The board of health has committed to maintaining the necessary resources to support implementation of all applicable rules.

(3) The board of health has sent a letter of notification to the director of health and the director of environmental protection at least sixty days prior to the date when the board of health will assume authority for SFOSTS. The letter of notification shall include the intended date for transfer of jurisdiction and shall indicate compliance with paragraphs (B)(1) and (B)(2) of this rule.
It is recognized that certain design standards for SFOSTS authorized in Chapter 3701-29 of the Administrative Code differ from those standards for on-site systems regulated under Chapter 3745-42 of the Administrative Code due to operation permit requirements for SFOSTS in paragraph (E) of this rule. As such, differences in design standards between these two chapters of the Administrative Code should not be construed as a conflict of law.

(C) SFOSTS shall comply with the following performance requirements and prohibitions:

(1) An SFOSTS shall not discharge to an abandoned well, drainage well, a dry well or cesspool, a sink hole or other connection to ground water. If classified as a class V injection well, an SFOSTS shall comply with 40 C.F.R.144 (as published in the July 1, 2005 Code of Federal Regulations) and the registration requirements pursuant to rule 3745-34-13 of the Administrative Code.

(2) An SFOSTS shall not be permitted for the holding, treatment, or dispersal of industrial waste or storm water for industrial activities. For the purpose of this rule, the normal use of housekeeping products does not constitute industrial waste. Any waste prohibited for introduction into an SFOSTS by the Ohio environmental protection agency regulations shall be source separated and regulated by Ohio environmental protection agency.

(3) An SFOSTS shall not be sited within the sanitary isolation radius of a public water system as determined in accordance with rule 3745-09-04 of the Administrative Code. An SFOSTS shall have additional design and/or management controls when sited within the inner management zone of a drinking water source protection area determined to be highly susceptible to contamination by the Ohio environmental protection agency source water assessment and protection program for a community or non-transient noncommunity public water system as defined in rule 3745-81-01 of the Administrative Code.

(4) A board of health that has assumed authority for SFOSTS in accordance with paragraph (B) of this rule shall not permit a privy or holding tank for an SFOSTS. Except as permitted for a household sewage disposal system by a board of heath, holding tanks are subject to the requirements of the Ohio environmental protection agency under rule 3745-42-11 of the Administrative Code.

(D) The flow and waste strength characteristics of an SFOSTS shall be addressed in accordance with the following provisions:

(1) The owner or owner's agent shall provide information on the sources of sewage from the structure or structures to be served by an SFOSTS for the board of health determination of compliance with this rule. The board of health may require submission of building and plumbing plans including plumbing fixture details and other information as needed.

(2) The daily design flow estimate for an SFOSTS shall comply with the following general provisions:

(a) The daily design flow for an SFOSTS shall be determined in accordance with table A-1 of rule 3745-42-05 of the Administrative Code. For an SFOSTS with periodic large daily flows that are stored to avoid exceeding the one thousand gallon per day treatment limit, the peak daily design flow shall be greater than the average of the daily flows and no actual daily flow shall exceed three thousand five hundred gallons.

(b) An increase in the daily design flow estimate for an SFOSTS shall be required by the board of health when there is an indication that the flows established in accordance with paragraph (D)(2)(a) of this rule will be exceeded. Any required increase in daily design flow shall be documented on the installation permit and operation permit.

(c) A reduction in daily design flow for an SFOSTS may be approved by the board of health when the information submitted indicates conditions

that justify reduced flow such as limited fixtures, waterless toilets, or other circumstances that may warrant a reduction in daily design flow. Any approved reduction in daily design flow shall be documented on the installation permit and operation permit.

(3) The waste strength estimate for an SFOSTS shall be determined for design purposes in accordance with the following general provisions:

(a) When the waste strength for an SFOSTS is expected to exceed or has exceeded typical residential waste strength, the design plan shall include loading calculations using values in accordance with table A-1 of rule 3745-42-05 of the Administrative Code. Any variation from the loading table values shall be justified in the design plan including waste strength characterization information. Board of health approval for any reduction or increase in loading estimates shall be documented on the installation permit and operation permit.

(b) Additional pretreatment shall be provided to assure that the SFOSTS soil absorption component receives a waste strength within the range of typical residential sewage. The method of pretreatment to reduce waste strength shall be justified in the design plan, reviewed by the board of health for compliance with this rule, and, if approved, shall be documented on the installation permit and operation permit.

(c) When an external grease interceptor is a component of the proposed pretreatment to reduce waste strength, the external grease interceptor shall be located, designed, and installed in a manner that will allow access for inspection and maintenance, including the following:

(i) a source segregated inlet line, when feasible;

(ii) sized to account for flow volume and temperature; and

(iii) watertight access risers extended to grade with secure covers.

(E) An operation permit shall include provisions to assure the proper operation and maintenance of an SFOSTS when the board of health has expanded its local authority through the regulation of SFOSTS in accordance with this rule.

(F) When a board of health has taken responsibility for SFOSTS in accordance with this rule, the board of health shall notify the Ohio environmental protection agency within sixty days when an SFOSTS that was previously permitted to be installed by the Ohio environmental protection agency has been abandoned in accordance with this chapter.