

2010

**Trumbull County General Health District (TCGHD)**

**Sewage Treatment System (STS)**

**Regulations**

**Sections 3701-29-01 to 3701-29-26**

**Adopted August 18, 2010**

**Effective September 17, 2010**

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## 3701-29-01 Definitions

For the purpose of interpretation and enforcement as used in Rules 3701-29-01 to 3701-29-26 of the Trumbull County General Health District (TCGHD), the following definitions shall apply.

- (A) "Aerobic Type Treatment System" 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.
- (B) "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.
- (C) "Alteration permit" means a permit needed to alter or make substantial changes to an existing HSTS.
- (D) "Base flood" means the flood having a 1% chance of being equaled or exceeded in a given year. Base flood is also referred to as the 100-year flood plain.
- (E) "Bedroom" means any room within a dwelling that might reasonably be used now or easily converted in the future as a sleeping room including but not limited to rooms designated as a den, office, or study.
- (F) "Board of Health" means the board of health of a city or general health district, or the authority having the duties of a board of health in any city as authorized by Section 3709.05 of the Revised Code.
- (G) "Bedrock" means the naturally occurring, contiguous layers of rock. Bedrock can range from a massive unit through highly fractured or fragments.
- (H) "Building drain" means that part of the lowest horizontal piping of a building drainage system, which receives the discharge from sewage drainage pipes inside the wall of the building and conveys such discharge to the building sewer two and one half (2½) feet outside the building.
- (I) "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, HSTS, or other points of treatment and disposal.
- (J) "Curtain drain" means a subsoil perimeter drain that prevents and/or minimizes the entrance of ground water into the area of the HSTS.
- (K) "Development" means any artificial change to improved or unimproved real estate, including, without limitation, the construction of building and other structures, and mining, dredging, filling, grading, paving, excavation, and drilling operations, and the movement of a manufactured home onto the real estate.

- (L) "Disturbed soils" means the altering or disturbance of the natural soil conditions or topography due to excavation, cutting, compaction, filling, or re-grading.
- (M) "Domestic septage" means the liquid or solid material removed from a sewage treatment system, portable toilet, or type III marine sanitation device as defined in 33 C.F.R. 159.3 "Domestic septage" does not include grease removed from a grease trap.
- (N) "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.
- (O) "Easily accessible" means of such location and design as to permit exposure with the use of only simple tools, such as a screwdriver, pliers, open-end wrench, or other simple tools supplied by the manufacturer.
- (P) "Economic Impact" means all of the following with respect to the approval or denial of a household sewage treatment system or small flow on-site sewage treatment system, as applicable:
- (1) The cost of a proposed system;
  - (2) The cost of an alternative system that will not create a public health nuisance;
  - (3) A comparison of the costs of repairing a system as opposed to replacing the system with a new system;
  - (4) The value of the dwelling or facility, as applicable, that the system services as indicated in the most recent tax duplicate.
- (Q) "Filter" means any device or material, which separates matter in suspension from a liquid.
- (R) "Flood elevations certificate" means the documents prepared by a properly licensed engineer indicating the base flood elevation in relation to mean sea level.
- (S) "Flood hazard zone" means the flood plain land in the county subject to the base flood. The lands are comprised of three classes: 1) the land which is frequently flooded, such land being identified and governed under the provisions of Section 6.c of this code; 2) the land designated as being subject to the base flood on maps issued by the Federal Emergency Management Agency (FEMA); and 3) other land not identified on FEMA maps, but locally identified as being subject to the base flood. On FEMA maps, the base flood area may be designated as Zone A on a Flood Hazard Boundary Map (FHBM). After detailed rate making has been completed in preparation of the Flood Insurance Rating Map (FIRM), Zone A usually is refined into additional zones.
- (T) "Health commissioner" means the health commissioner of a general health district as defined by 3709.11 of the O.A.C. or his authorized representative.

- (U) "Holding tank" means a watertight sealed tank, that will collect and accumulate sewage from a building sewer (that does not have a discharge line) and must be pumped on a regular basis to remove the sewage.
- (V) "Household sewage treatment system - HSTS" means any sewage treatment system, or part of such a system, that receives sewage from a single-family, two-family or three-family dwelling.
- (W) "Inspection" means the on-site evaluation or analysis of the functioning of a sewage treatment system.
- (X) "Installation permit" means a permit issued to install a new or complete replacement HSTS.
- (Y) "Installer" means any person who engages in the business of installing or altering or who, as an employee of another, installs or alters any sewage treatment system.
- (Z) "Interceptor drain" means a drainage system that diverts surface and subsurface water and is installed up gradient from the leaching system and outlets to the ground surface on either side of the leaching field.
- (AA) "Leaching system" means that part of a HSTS used to dissipate the effluent from a sewage tank by means of evaporation, transpiration, soil absorption, soil percolation or any combination thereof.
- (BB) "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.
- (CC) "Lot" means a parcel of land, which has been recorded as lawful lot on the most recent tax document and is used or intended to be used as a single-family dwelling, two-family dwelling, or three-family dwelling site.
- (DD) "Lot evaluation" means observing the field, which includes soil and site conditions of a proposed lot to determine acceptable area for the installation of a sewage treatment system and duplication area.
- (EE) "Lot split" means a division of one lot into two lots.
- (FF) "Manufacturer" means any person that manufactures sewage treatment systems or components of systems.
- (GG) "Nuisance" means any condition of sewage that is potentially injurious to the health, safety, comfort, or property of a person, or pollutes water of the state.
- (HH) "Outlet point" means the point at which the effluent from a HSTS or curtain drain enters a public ditch or discharges to the surface of the ground or to a body of water.

- (II) “Perched seasonal 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.
- (JJ) “Person” has the same meaning as in Section 1.59 of the Revised Code and also includes any state, any political subdivision of a state, and any department, division, board, commission, agency, or instrumentality of a state or political subdivision.
- (KK) “Plot plan” means a detailed drawing to scale, accurately showing how a HSTS will be located and staked out on a given lot.
- (LL) “Point Source Discharge” means the location at which treated or partially treated sewage is introduced into a county-maintained ditch, stream or other receiving site.
- (MM) “Pollution” means the placing of any noxious or deleterious substances 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 animal or aquatic life, or to the use of such waters for domestic water supply or industrial or agricultural purposes, or for recreation.
- (NN) “Privy” means any sanitary, waterless device for the collection and storage of human excrement but does not include chemical commodes or other portable receptacles.
- (OO) “Renewable Operation Permit” means those HSTS that contain any mechanical components or any alternative type of treatment devices that need routine monitoring to operate optimally. A renewable operation permit does not include a conventional gravity-feeding on-lot leaching system.
- (PP) “Sanitary sewerage system” 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.
- (QQ) “Secured cover” means a removable cover or casting that prohibits unwarranted or unauthorized removal of the cover by means of weight, locking or bolting. Secured covers shall be designed, constructed and installed so as to exclude the entrance of surface water.
- (RR) “Septage” means the mixed liquid-scum and solid contents of septic tanks, cesspools, seepage pits, permanent privies, portable privies, or other type of on-site treatment or holding system for domestic waste.
- (SS) “Septage hauler” means any person who engages in the collection, transportation, disposal, and land application of domestic septage.
- (TT) “Septic tank” means any watertight, covered receptacle designed and constructed to receive the discharge of sewage from a building sewer, to provide primary treatment, and to discharge the effluent from settled sewage.

- (UU) "Service provider" means any person who services, but does not install or alter, sewage treatment systems.
- (VV) "Sewage" means 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.
- (WW) "Sewage tank" means any watertight tank designed to retain sewage and included, but is not limited to, septic tanks and aerobic type treatment tanks.
- (XX) "Sewage treatment system" means a household sewage treatment system, a small flow on-site sewage treatment system, or both, as applicable.
- (YY) "Small flow on-site sewage treatment system" means a system, other than a household sewage treatment 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 permit issued under section 6111.043 of the Revised Code.
- (ZZ) "Subdivision," that which is defined in O.R.C. Chapter 711.001, means the division of any parcel of land shown as a unit or as contiguous units on the last preceding tax roll, into two (2) or more parcels, sites, or lots, any one of which is less than five (5) acres, for the purpose, whether immediate or future of transfer of ownership, provided, however, that the division or partition of land into parcels of more than five (5) acres not involving any new streets or easements of access, and the sale or exchange of parcels between adjoining lot owners, where such sale or exchange of parcels between adjoining lot owners, where such sale or exchange does not create additional building sites, shall be exempted; or the improvement of one or more parcels of land for residential, commercial, or industrial structures or groups of structures involving the division or allocation of land for the opening, widening or extension of any street or streets except private streets serving industrial structures; the division or allocation of land as open spaces for common use by owners, occupants, or lease holders, or as easements for the extension and maintenance of public sewer, water, storm drainage, or other public facilities.

### 3701-29-01.1 Fees

For the purposes of administering and enforcing the provisions of Chapter 3701-29-01 through 3701-29-26 of TCGHD, the following fees have been established.

- (A) Installation Permit – New & Replacement (\*Includes \$25 State Fee)- \$525.00
- (B) Alteration Permit.....250.00
- (C) Operation Permits
  - (1) Level 1..... 25.00
  - (2) Level 2..... 85.00
  - (3) Level 3..... 125.00
  - (4) Level 4 ..... 175.00
- (D) Application for Site Review – Lot Evaluation .....\$250.00
- (E) Subdivision “Conceptual” Plan.....\$550.00
- (F) Registration of Installers
  - (1) Class I ..... \$125.00  
and \$20,000 surety bond provided at applicant’s cost
  - (2) Class II (homeowner) ..... 125.00  
and \$10,000 surety bond
- (G) Registration of Sewage Tank Cleaners
  - (1) First Truck ..... \$150.00
  - (2) Each additional truck..... 50.00
- (H) Registration of Service Providers .....\$125.00  
and \$5,000 surety bond
- (I) Registration of Soil Evaluators.....\$125.00  
and \$10,000 surety bond provided at applicant’s cost
- (J) Re-inspection fees for any of the above .....\$50.00
- (K) Effluent sampling for the determination of compliance .....\$125.00
- (L) Variance Application
  - (1) Requests that require an inspection.....\$250.00
  - (2) Requests that do not require an inspection .....50.00
  - (3) Recorder’s fee (separate check made out to Trumbull County Recorder) .....32.00
- (M) For Sale of Property (Property Transfer) .....\$250.00
- (N) 25% Penalty if any work is started before permit is issued or late fee.  
(Effective July 1, 2010 per Ohio Department of Health rule change)

## 3701-29-02 Sewage Disposal Requirements

- (A) The design, construction, installation, location, maintenance, and operation of HSTS including, but not limited to, septic tanks, aerobic type treatment systems, filters, leaching tile fields, leaching wells, building sewers, and privies or part thereof shall comply with these rules and engineering practices acceptable to the Ohio Department of Health and current Ohio Environmental Protection Agency effluent standards.
  - (1) The treatment systems shall be installed by a registered installer according to approved plans, accepted engineering practice, and manufacturer's specifications, and be set level and at the correct elevations.
  - (2) All joints, connections risers, etc., shall be sealed with appropriate waterproof material to prevent the infiltration of surface water or leakage.
  - (3) Sewage tanks shall be durable and of watertight construction; which are resistant to corrosion, decay and degradation; as well as, capable of loads to which they are subjected within manufacturer's specified limits.
  - (4) The registered installer shall be responsible to insure that all electrical work and equipment is installed properly and in compliance with the current standards of the national electric code of the National Fire Protection Association.
  
- (B) Any dwelling that is not connected to a sanitary sewerage system shall be provided with an approved HSTS prior to its being occupied.
  
- (C) There shall be one HSTS, which serves one dwelling on an individual lot. The system shall be properly maintained and operated by the owner. All the sewage from the dwelling shall discharge into the system.
  
- (D) No HSTS or part thereof shall create a nuisance. A nuisance shall be deemed by the Board of Health when any of the following conditions exist:
  - (1) Conditions as outlined in O.A.C. Section 3745-1-04(F) exist.
  - (2) A sewage treatment system is causing effluent to surface and pond on the ground.
  - (3) Contents of a sewage tank and/or a leaching system are conveyed into natural or artificial underground drainage tile.
  - (4) Contents of a sewage tank or leaching system are directly connected to the normal ground water table.
  - (5) When a system designed for leaching and percolation is in a flooded condition and not allowing the percolation to occur.

- (6) When the sewage treatment system cannot be properly operated and maintained as the system was designed.
- (E) No person shall discharge, or permit to be discharged, treated or untreated sewage, the overflow drainage or contents of a sewage tank, or other putrescible, impure, or offensive wastes into an abandoned water supply, well, spring, or cistern or into a natural or artificial well, sink hole, crevice, or other opening extending into limestone, sandstone, shale, or other rock formation, or normal ground water table.
- (F) No person shall discharge, or permit or cause to be discharged, treated or untreated sewage, the drainage or contents of a sewage tank, or other putrescible or offensive wastes onto the surface of the ground, into any street, road, alley, open excavation, or underground drain unless authorized by a national pollutant discharge elimination system (NPDES) permit issued under Chapter 6111.
- (G) Off-lot disposal of sewage effluent shall not be permitted for any new construction projects. Off-lot disposal of effluent shall only be considered as a last option for a failing existing system.
  - (1) When off-lot disposal of sewage effluent requires the crossing of adjacent properties to reach the point of discharge a recorded easement or the use of a legally established, publicly-maintained drainage improvement from the dwelling lot line to the point shall be required.
  - (2) Written permission to discharge sewage effluent from the person or persons in control of the property or properties at the point of discharge shall be required. In addition, the governmental department in charge of maintenance of a culvert pipe or ditch shall grant written permission to discharge sewage effluent and state that the ditch and culvert will be maintained by that entity. The following are considered as discharge points:
    - (a) Natural watercourse, such as a flowing stream, provided it carries water year round of a volume to prevent pooling or stagnation of the discharged effluent, and can provide a dilution factor of four parts water to one part effluent.
    - (b) Other natural watercourses, which are acceptable to OEPA and conform with all applicable water quality standards.
    - (c) Storm sewers and culvert tiles which outlet to an acceptable watercourse and are properly designed, constructed, maintained, and legally established.
    - (d) Open ditches as a last option where no other receiving watercourses are available. The ditch must discharge to an acceptable watercourse and be properly designed, constructed, and maintained to prevent pooling or stagnation of effluent.
  - (3) Sewage effluent quality as measured at the point of discharge in the system shall comply with current effluent standards per NPDES requirements established by the director of the Ohio Environmental Protection Agency. In the event there are no applicable standards established by the director of the

Ohio Environmental Protection Agency, the following effluent standards shall comply:

- (a) Biochemical Oxygen Demand (five day) – The arithmetic mean of two or more effluent samples taken at intervals of not less than twenty-four hours shall not exceed twenty milligrams per liter.
  - (b) Suspended Solids – The arithmetic mean of two or more effluent samples taken at intervals of not less than twenty-four hours shall not exceed forty milligrams per liter.
- (4) When test results indicate that the standards set forth in Rule 3701-29-02 (G)(3) are not being met or nuisances are being created, as described in D of this section, additional treatment devices or the repair or replacement of a system may be required by the Board of Health.
- (a) When determining whether a system will be repaired or replaced, the economic impact shall be considered.
- (5) All reasonable means shall be taken to minimize the amount of effluent discharged off the lot.
- (6) Any collector tile drain carrying sewage, whether raw or partially treated including sewage effluent, from two or more dwellings, shall be considered a sanitary sewer and therefore subject to regulation by the Ohio Environmental Protection Agency.
- (H) Lots on which HSTS for dwellings are to be installed shall be of suitable soils as described in section 3701-29-10, topography and area to permit compliance with the rules set forth in this chapter. The department reserves the right to deny the installation of a HSTS on a given lot if compliance with the rules in this chapter cannot be adequately met.
- (1) Installation of primary or secondary components of the HSTS or parts thereof shall not be permitted in any area having a 1% chance of flooding any given year; i.e., there shall be no new installation within the 100-year flood plain.
  - (2) FEMA maps will be used in determining the flood plain. Should any disputes arise, it shall be the responsibility of the applicant at their expense to provide the department with a flood elevation certificate prepared and sealed by a professional engineer licensed in the State of Ohio.
  - (3) Where an official flood plain has not been delineated, but there exists either a natural or man-made watercourse or pond, or other area subject to flooding on or near the property, any sewage treatment system or part thereof, except the out fall and any post treatment system pipe, shall be set back a minimum of 50 feet from the normal bank of the watercourse or flood prone soils.

- (4) No household sewage disposal system or parts thereof shall be installed in an area having a slope greater than 15%.
- (I) A suitable area shall be available to provide for the complete relocation and replacement of the HSTS. The area shall be designated on a plot plan submitted to the department, and the four (4) corners staked out on the lot. An off-lot discharging system shall not be considered for use in the suitable replacement system.
- (J) Lots on which private water supplies are to be installed shall be sufficient area to provide isolation of the water supply system from both the original HSTS and the area intended for any relocation and replacement on this and adjacent lots as required by the rules in this chapter. Lots on which public or municipal water supplies are to be installed shall be sufficient area to provide isolation of the water supply distribution system from both the original HSTS and the area intended for any relocation and replacement on its adjacent lots as required by the rules in this chapter.
- (K) A HSTS shall be a minimum of 10 feet horizontally from any lot or right-of-way line, 10 feet horizontally from any building foundation, 10 feet horizontally from any water service line, and 50 feet from any water supply source on this or any adjacent lot.
- (L) No HSTS shall be installed, maintained, or operated on property accessible to a sanitary sewage system. A property shall be deemed **accessible** to connect to sanitary sewer if any of the following exists:
- (1) The area being sewered is a result of a Board of Health order, per ORC 6117.51, declaring a public health hazard or an EPA abatement order to eliminate water pollution per ORC 6117.34.
  - (2) Any area under judicial order, consent decree, or any assessment project that property owners petitioned for sanitary sewer benefit.
  - (3) If neither #1 or #2 apply, and the nearest foundation of the structure is 300 feet or less to the right-of-way of the sewer.
  - (4) If neither #1, #2 nor #3 apply (i.e., the foundation is greater than 300 feet from the right-of-way), the owner's sewage system shall be tested. If it fails, the property owner must connect to the sanitary sewer. The evaluation of the sewage system shall be conducted by the Board of Health and current real estate evaluation fees shall apply. (*adopted 4-15-09*)
- (M) Whenever a sanitary sewerage system becomes accessible to the property, a HSTS, regardless of age or operation, shall be abandoned and the house sewer directly connected to the sewerage system within three (3) months of the sanitary sewer being declared available or accessible by the county sanitary engineer's office or other responsible entity for a sanitary sewage system.

- (N) Roof water, foundation drain(s), cistern overflow, surface drainage, subsurface drainage or the main drain of a swimming pool shall not be discharged into a HSTS.
- (O) Plastics in any form, wet strength paper towels, cloth of any kind, rubber products, throw-away baby diapers, cigarettes 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 HSTS or cause contamination to groundwater resources shall not be deposited or flushed in plumbing fixtures or otherwise be introduced into a building sewer or HSTS.
- (P) No person shall alter or allow the unauthorized alteration or disturbance of the natural topography or soil conditions of the HSTS leaching system area or the relocation and replacement area during the course of building site preparation, excavation, or the construction of the home or other improvements through soil-cutting, compaction, filling, or re-grading. Such alteration shall be cause to invalidate the site approval and require a re-evaluation of the soil suitability by a soil professional approved by the Board. The soil professional's written opinion, which contains not only a statement of suitability, but also what corrective measures would be required before the site is determined suitable and shall be reviewed by this department. Once a leaching or distribution area is approved for use by the sanitarian, the designated area shall be protected from disturbance.
- (Q) If, during the course of construction of each leach line trench, care was not taken to protect all natural infiltrative soil properties from damage due to compaction, smearing, or infiltration of silt, etc., a re-evaluation conducted by a soil professional shall be required.
- (R) It shall be the responsibility of the installer, upon final approval of the HSTS, to see to it that the area where the system is located is back filled and/or graded in accordance with the rules of the TCGHD to have six (6) to eight (8) inches of topsoil placed over the trenches.
- (S) All components and equipment used for the installation of a HSTS must be on the approved list of the Ohio Department of Health (O.D.H.) as applicable. Components differing in design or principle of operation from those complying with requirements (such as chlorine contact tanks) set forth in these regulations, shall be dependent on an evaluation by the Trumbull County Board of Health and approved by the Board before it can be used in the County.

### **3701-29-03 Subdivisions**

Requirements for obtaining conceptual approval of subdivision

- (A) Any person proposing to create a subdivision shall submit to the Board of Health for Conceptual Approval, plans clearly showing that the provisions of rules 3701-29-01 to 3701-29-21 of the Ohio Sanitary Code and these rules can be adequately met, before

any of the lots in the subdivision are sold or offered for sale, whether or not such sale entails a transfer of title or deed.

- (B) For the purpose of proper administration and enforcement of this section of the regulations for HSTS, "Subdivision" means that which is defined by Section 711.001 of the Ohio Revised Code (O.R.C.) as described in paragraph 3701-29-01 (SS) of this rule.
  - (1) The division of any parcel of land shown as a unit or as contiguous units into two (2) or more parcels, sites, or lots, any one of which is less than five (5) acres, is subject to these rules.
  - (2) The division of any parcel of land into more than five (5) lots, which are less than five (5) acres each shall require "conceptual approval" by the Board in regard to the installation of a HSTS prior to permit issuance.
  - (3) The division of land into parcels of land more than five (5) acres not involving any new street or easements, and the sale or exchange of parcels between adjoining lot owners, where such sale or exchange does not create additional building sites, shall not be considered as a subdivision subject to this section.
- (C) No person shall install HSTS in new subdivisions, unless it is considered to be impracticable or inadvisable by the Board of Health and the Ohio Environmental Protection Agency (OEPA) to install a central sewage system.
- (D) If HSTS are proposed, the developer (owner or agent responsible for development) shall comply with all of the following requirements at the time of the plan submittal.
  - (1) Subdivision "Conceptual Plan" review fee.
  - (2) Letter from the OEPA declaring that there are no acceptable receiving streams to accept effluent from a centralized sewage treatment plant and therefore the Board has final authority in regard to the type and design of systems to be installed on each lot within the subdivision.
  - (3) Letter from the appropriate political authority indicating that all lands located within the proposed subdivision are zoned properly for either one (1), two (2), or three (3) family dwelling units.
  - (4) Letter from the Sanitary Engineer stating that distance to the nearest accessible sanitary sewer and approximate cost incurred to extend said sewer to the proposed subdivisions.
  - (5) Architectural floor plan of "typical" home to be constructed within the subdivision, which meets subdivision deed restrictions.
  - (6) Soil evaluation prepared by a soil professional who is registered with the American Registry of Certified Professionals in Agronomy, Crops and Soils (A.R.C.P.A.C.S.) or certification from A.O.P. (Association of Ohio Pedologists). Said evaluation shall include, but not necessarily limited to:

- (a) The properties and characteristics of the soils in the subdivision.
  - (b) Depth to normal ground water table and rock strata.
  - (c) Soil permeability.
  - (d) Soil-gravel interface area.
  - (e) Control of seasonable or perched water table.
  - (f) Slope of ground
  - (g) Soil classifications
  - (h) Rock and other hydraulic boundaries
- (7) Site plan and specifications prepared by a Licensed Professional Engineer (P.E.). Said plan shall include, but not necessarily limited to:
- (a) Total land area to be used.
  - (b) Location and size of all lots.
  - (c) Location of all soil boundaries within the subdivisions as designated by the soil professional.
  - (d) Location of all bodies of water, streams, ditches, sewers, drain tile, existing and proposed potable water supply sources and lines on this or adjacent lots within 100 feet of the proposed subdivisions, or any other information, which may affect the installation or operation of HSTS or the enforcement of rules 3701-29-01 to 3701-29-26, inclusive, of the Trumbull County Board of Health.
  - (e) All proposed dwellings and/or outbuildings for each lot, if known.
  - (f) Layout of proposed HSTS for each lot.
  - (g) Existing and finish grade of all lots.
  - (h) Designated (replacement) area.
- (E) After plan submittal to the department, a lot evaluation shall be conducted by a staff sanitarian and the developer to demonstrate each of the proposed lots have adequate, usable land area for the initial installation of a leaching system and duplication area as designed in the plans.
- (F) Unless otherwise demonstrated, each parcel, site, or lot located within the subdivision shall contain the following minimum area of suitable soil, as prescribed in Section 3701-29-10, per bedroom of each individual home to be constructed with subdivisions. Refer to Table 1.

**Table 1 Minimum Recommended System Area Requirements**

No. of Bedrooms	Minimum Suitable Area Per Section 3701-29-10
2	1 Acre
3	1.5 Acres
4	2 Acres
5	2 Acres
6	3 Acres

7	3 Acres
8	3 Acres
9-12	4 Acres

- (G) The developer shall agree, at time of “conceptual approval” by the Board, on the maximum number of bedrooms each home shall be provided with for each lot within the subdivision.
- (1) For the purpose of interpretation, Section 3701-29-01 Definition (C) “Bedroom” shall be used in regard to determination of number of bedrooms at time of “conceptual” submittal and individual lot application.
  - (2) The granting of “conceptual approval” in regard to proposed HSTS to be installed within the subdivision, does not guarantee that each lot can support a system. Each lot shall be evaluated independently in more detail on an individual basis at time of permit application by the owner. It shall be the responsibility of the developer, after having obtained “Conceptual Approval” from the Board, to inform the buyer of each lot, at time of sale of these “conceptual approval” conditions.
- (H) The installation of an “off-lot” type HSTS within a subdivision is prohibited.
- (I) Plans and specifications for “on-lot” type HSTS that are contrary to these rules 3701-29-01 to 3701-29-26 for HSTS may be considered for approval by the Board as defined in Section 3701-29-20.1

**3701-29-04 Installation Permit**

- (A) No person shall install a HSTS 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 HSTS prior to the start of the construction of a dwelling.
- (B) Application for an installation permit shall be in writing and contain pertinent information as required by the Board of Health. Any fee established by the Board of Health for application shall accompany the application. Fees shall be used for the purpose of administering and enforcing Trumbull County HSTS Regulations.
- (C) The application for an installation permit is to be accompanied by an acceptable site plan drawn to scale, showing dimensions of the lot and distance from the HSTS to the dwelling and appurtenant buildings. The form provided by the Health department shall be completed in detail to provide adequate data for processing the application. The site plan must be prepared by the registered installer and/or system designer and shall contain but not be limited to the following:
- (1) Location of the house.

- (2) Location of septic tanks or other treatment units.
  - (3) Location of complete distribution system, as applicable.
  - (4) Designated replacement area.
  - (5) Water supplies, as applicable.
  - (6) Auxiliary buildings, swimming pool or any other structure.
  - (7) Location of all bodies of water, ditches, utility lines, drain tile, easements, driveways, or other obstructions, which may affect the installation of the HSTS.
  - (8) Benchmark elevation and building sewer invert elevation.
  - (9) Recorded ground elevations at the house, tanks, all boxes, beginning and end of all leach lines and/or distributions systems, 4 corners of the curtain drain, and discharge point of curtain drain.
  - (10) Distances of all components from the house foundation by building sewer location and distances to lot lines and water well.
  - (11) Legend of identification
- (D) The Board of Health shall issue a permit when the pertinent information indicates that the provisions of Rules 3701-29-01 to 3701-29-26 of the TCGHD Regulations can be met, all applicable fees have been paid, and the HSTS and replacement areas have been staked off. Staking for this purpose must include the entire system to be installed, staked out on the lot by using three (3) different markers for the leach lines to contour at intervals of 25 feet, or the four corners of the required footprint of a mound or drip system. Also, to be shown by different colored markers are the location of the driveway, house, septic tanks, 4 corners of the curtain drain, curtain drain outlet, splitter box, as well as, the 4 corners of the designated replacement area.
- (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 3701-29-01 to 3701-29-26 of the TCGHD Regulation cannot be met.
- (F) An installation permit shall remain in force until completion of the HSTS or for one year from the date of issuance, whichever occurs first. The permit may be revoked or suspended by the Board of Health and may be extended for a period of up to six months at the discretion of the environmental health director.
- (G) The installation of the HSTS or any part thereof shall conform the requirements of Rules 3701-29-01 to 3701-29-26 of the TCGHD Regulation and the terms of the permit as required by the Board of Health in Section (D) of this rule.

### **3701-29-04.1 Alteration Permit**

- (A) No person shall alter or make substantive changes to an existing HSTS without first obtaining an alteration permit issued to them by the Board of Health. The owner or a designated agent shall obtain such alteration permit from the Board of Health for the alteration of the HSTS prior to the start of alteration work.

- (B) 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 the Board of Health shall accompany the application. All fees shall be used for the purpose of administering and enforcing TCGHD HSTS Regulations.
- (C) The Board of Health shall issue a permit when the pertinent information indicates that the provisions of the Rules in this chapter can be met.
- (D) The Board of Health shall deny a permit if the information on the application is incomplete, inaccurate, or indicates that the provisions of these rules cannot be met.
- (E) An alteration permit shall remain in force until completion of the work or one year from the date of issuance, whichever occurs first. The permit may be revoked or suspended by the Board of Health and may be extended for a period of up to six months at the discretion of the environmental health director.
- (F) The following items, but not necessarily limited to, are examples of an alteration to an existing HSTS that requires an alteration permit:
  - (1) Expansion, replacement or relocation of a building sewer
  - (2) Expansion, replacement or relocation of curtain drain pipe(s)
  - (3) Expansion or relocation of an aerobic type treatment system discharge pipe
  - (4) Expansion, replacement or relocation of leach line trenches
  - (5) Replacement of septic tank(s)
  - (6) Replacement of sewage tank with an aerobic type treatment system
  - (7) Addition, replacement or relocation of filters
  - (8) Addition of a chlorine contact tank
  - (9) Addition of chlorinator, dechlorinator, or tablet feed tube
  - (10) Addition of splitter (diversion) box
  - (11) Addition of a dosing tank
  - (12) Addition of effluent filter/chamber
- (G) The following items, but not necessarily limited to, are examples of a repair and not considered an alteration, and therefore does not require an alteration permit:
  - (1) Installation of risers or lids
  - (2) Repair or replacement of aeration motor or pump
  - (3) Installation of sample well
  - (4) Repair or replacement of existing chlorinator, dechlorinator, or tablet feed tube
  - (5) Repair or replacement of pump in dosing tank
  - (6) Extension to grade of an existing splitter (diversion) box

### **3701-29-04.2 Operation Permit**

- (A) Upon effective date of this rule, no person shall be permitted to operate a HSTS without a renewable operation permit issued to them by the Board of Health. The owner or their designated agent shall obtain such a permit from the Board of Health for the operation of the said HSTS prior to the use of the system.

- (B) An application for an operation permit shall be in writing on a form provided by the department and contain pertinent information as required by the Board of Health. Any fee established by the Board of Health for application shall accompany the application. All fees shall be used for the purpose of administering and enforcing TCGHD HSTS Regulations, including effluent sampling.
- (C) The Board of Health shall issue an operation permit when the pertinent information indicates that the provisions of Rules 3701-29-01 to 3701-29-26 of the TCGHD can be met and all applicable fees have been paid.
- (D) The Board of Health shall deny an operation permit if the information on the application is incomplete, inaccurate or indicates that the provisions of the Rules 3701-29-01 to 3701-29-26 of the TCGHD cannot be met.
- (E) A renewable operation permit shall remain in force for a period up to one year and the semi-annual inspections shall be required by a registered service provider for Level 2, Level 3, or Level 4.
- (F) Each renewable operation permit shall expire on December 31 annually and a 100% late fee will be assessed on all permits, which are allowed to elapse.
- (G) A renewal application for operation of the system shall be submitted to the Board of Health at least thirty days prior to the expiration date.
- (H) The renewable operation and maintenance of the HSTS shall conform to the requirements described in the permit to comply with rules set forth in this chapter.
- (I) Renewable operation permits will be issued on the basis of risk to the environment as follows:
  - (1) Level 1 – This category includes all systems that are based on soil absorption as the final treatment component and **does not** utilize a pre-treatment component for soil depth credits. Examples are leach fields and standardized mounds.
  - (2) Level 2 – This category includes all systems that are based on soil absorption as the final treatment component and **does** utilize pre-treatment components to obtain soil depth credits. Examples are leaching systems, mounds, or drip distribution systems.
  - (3) Level 3 – System that employs an aerobic treatment unit that discharges the effluent off-lot. This will require yearly effluent sampling.
  - (4) Level 4 – A system that is under an NPDES permit issued by OEPA for off-lot discharge, which requires additional monitoring and sampling requirements than a Level 3.

In order to insure compliance with the requirements stated in 3701-29-02 (D) or 3701-29-02 (G)(3), the holder of a Level 2, Level 3, or Level 4 permit shall purchase and keep in force, a service contract from a registered service provider in perpetuity.

### **3701-29-05 Registration of Installers of Household Sewage Treatment Systems (HSTS) or Parts Thereof**

- (A) No person shall perform the services of an installer unless he or she holds a valid registration issued to them by the Board of Health. Registration must include either:
  - (1) Class I installers registration
  - (2) Class II installers registration (a temporary registration for a homeowner to install their own system)
- (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. Fee shall be used for the purpose of administering and enforcing these rules. In addition, verification of a surety bond must be provided by the installer to the Board of Health. The TCGHD may warrant a bond claim should corrective action be required by the Board of Health.
  - (1) Minimum amount of the bond for a Class I license will be \$20,000.
  - (2) Minimum amount of the bond for a Class II license will be \$10,000.
- (C) Each registration issued hereunder shall expire annually on December 31. Registrations not renewed by this date shall be subjected to a 100% late fee.
- (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 3701-29-01 to 3701-29-26 of the HSTS Regulations of the TCGHD.
- (F) Any individual or firm applying to become a registered HSTS installer must also be able to pass a written test as provided by the health district. Any person not registered as of the effective date of these regulations must pass the test with a score of 70% (BOH amended 8-20-08) or higher corresponding to the type of registration desired. The test shall be mandatory for initial registration only. A Class I installer's test will include all provisions of the regulations; whereas, a Class II installer's test will only pertain to the applicable provisions to the type of components to be installed. Additional testing may be authorized by the Health Commissioner should:
  - (1) The regulations or standards substantially change.
  - (2) The installer's work does not reflect an understanding or knowledge of the most current regulations.
  - (3) Installers, not previously registered with the Trumbull County Board of Health prior to 12/31/06, will be tested.

- (G) Each registrant shall attend at least one (1) educational meeting per year for their registration to be considered for renewal. A certificate of attendance must be submitted by the installer with the renewal application.
- (H) Whenever the Health Commissioner finds that an installer is or has engaged in practices, which are in violation of any provision of Rules 3701-29-01 to 3701-29-26 of the HSTS Regulations of the TCGHD or the terms of any permit as required by the Board of Health in regulations 3701-29-04(C) and 3701-29-04.1(C) 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.
- (I) Every installer must install or alter at least two (2) HSTS per year to be considered for renewal the next year.
- (J) Any new installer registrant is subject to a 1-year probationary period to be effective from the date of registration. Evaluation of the performance of the company and/or individual will occur during the probationary period. Should the evaluation demonstrate problems or deficiencies, further sanctions may be implemented. Upon successful completion of the probationary period, registrant will be promoted to regular status. (Board Amendment effective 2-17-10)

### **3701-29-05.1 Registration of Service Providers**

- (A) No person or firm shall perform service work or repair of any HSTS, as required in Section 3701-29-04.2(1)(2)(3) & (4), of this regulation, unless he or she holds a valid registration issued to them 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. Fee shall be used for the purpose of administering and enforcing these rules.
- (C) Each registration issued hereunder shall expire December 31 annually.
- (D) Renewal application for registration shall be submitted to the Board of Health at least 30 days prior to the expiration date.
- (E) Every registrant shall maintain and submit to the Board of Health, a copy of the semi-annual inspection report conducted for each system within 30 days of inspection, and any other records as may be required for determining compliance with these rules.
- (F) In addition, every individual or firm must provide a written copy of verification of a current surety bond in the amount of five thousand dollars (\$5,000) and is to be submitted with the application. The TCGHD may warrant a claim against the bond should any corrective action be required by the Board of Health.

- (G) Every registrant must be able to demonstrate knowledge of the devices he or she will be servicing. This will be accomplished by one of the following:
  - (1) A licensed dealer of the unit or device.
  - (2) Completion of a training course and certification by manufacturer.
- (H) Every registrant must submit written verification of where replacement parts will be purchased. In addition, only the components approved by the manufacturer shall be used.
- (I) Whenever the health commissioner finds that a service provider is or has engaged in practices, which are in violation of any applicable provisions, 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 or her registration should not be suspended or revoked.

### **3701-29-05.2 Registration of Soil Professionals**

- (A) No person or firm shall perform or provide soil analysis or reports to the TCGHD for the purpose of determining the type of a HSTS unless he or she 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. Fee shall be used for the purpose of administering and enforcing rules.
- (C) Each registration issued hereunder shall expire December 31 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, a written soil analysis for each individual lot(s) and any other environmental factors that may inhibit compliance with Rules 3701-29-01 to 3701-29-26 of the HSTS Regulations of the TCGHD.
- (F) Any individual or firm applying to become a registered soil professional, must possess an ARCPACS certification from the American Society of Agronomy or AOP.
- (G) In addition, any individual or firm applying for registration as a soil professional must provide a written copy of verification of a current surety bond in the amount of ten thousand dollars (\$10,000) to be submitted with the application. The district may warrant a bond claim should any corrective action be required by the Board of Health.
- (H) Whenever the Health Commissioner finds that a soil professional is or has engaged in practices which are in violation of any provision of Rules 3701-29-01 to 3701-29-26 of the Trumbull County HSTS Regulations, or has provided information that is incorrect, 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.

### **3701-29-06 Registration of Sewage Tank Cleaners**

- (A) No person shall perform the services of a sewage tank cleaner unless he or she holds a valid registration issued to them 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 and truck permitting by law or authority of law shall accompany the application.
- (C) The Board of Health shall issue a permit for each truck operated by the registrant when the pertinent information indicates that the provisions of regulations 3701-29-01 to 3701-29-26 of the TCGHD HSTS can be met. The Board of Health may specify terms consistent with regulations 3701-29-01 to 3701-29-26 on the permit governing the collection, transportation and disposal of the contents of sewage tanks or privies.
- (D) Each registration and permit issued hereunder shall expire on December 31, annually.
- (E) A renewal application for registration and permits 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 3701-29-01 to 3701-29-26 of the TCGHD HSTS Regulations. Every registrant shall maintain and submit to the department on a monthly basis, a complete pump receipt form for each site pumped within the county. The form will be supplied by the department for every septic or sewage tank cleaned.
- (G) All contents pumped from septic tanks or sewage tanks must be taken to an OEPA licensed wastewater treatment facility to be disposed of.
- (H) All grease traps and car wash traps pumped shall be disposed of at a licensed recovery facility or licensed landfill.
- (I) No septage, grease or road grit is permitted to be land applied within the jurisdiction of the TCGHD.
- (J) Whenever the Health Commissioner finds that a sewage tank cleaner is or has engaged in practices, which are in violation of any provision of rules 3701-29-01 to 3701-29-26 of the TCGHD HSTS Regulations, the terms of the registration permit as required by the Board of Health in regulation 3701-29-06(C), or applicable laws of the state, the Board of Health shall give notice in writing to the registrant describing the alleged violation and state that an opportunity for a hearing will be provided by the Board of Health to show cause, why his or her registration should not be suspended or revoked.

### **3701-29-07 Septic Tank**

- (A) All septic tanks shall be reviewed by the Ohio Department of Health (O.D.H.) and approved by the Trumbull County Board of Health. Septic tanks and their components shall be watertight and structurally sound, constructed of durable material such as concrete, fiberglass, or plastic, shall be protected from corrosion and meet applicable standards. The minimum capacity of septic tanks shall be:
  - (1) Single Family Dwelling
    - (a) One to four bedrooms: 2000 gallons in two (2) tanks or compartments
    - (b) Five or more bedrooms: 3000 gallons in two (2) tanks or compartments
  - (2) Two or three family dwelling – the sum of the volumes for each single-family residential unit within the dwelling as designed by this rule.
- (B) In systems using two (2) tanks, the septic tanks shall be connected in series and all sewage shall initially enter the first tank.
- (C) The invert level of the inlet shall be not less than two (2) inches above the liquid level of the tank.
- (D) A vented inlet baffle shall be provided to divert the incoming sewage downward. The baffle shall penetrate at least six (6) inches below the liquid level, but the penetration shall not be greater than that allowed for the outlet device.
- (E) The outlet shall be fitted with a vented tee, vented ell, or baffle, which shall extend not less than six (6) inches above and not less than eighteen inches below the liquid level of the tank.
- (F) The septic tank shall have a liquid drawing depth of not less than four (4) feet.
- (G) The distance from the flow line to the cover shall be at least twelve inches.
- (H) The septic tank shall be installed with a minimum of one (1) secured cover extended to grade with a riser to provide access to both inlet and outlet of the septic tank for inspection and cleaning. Risers shall be sealed to the top of the tank or to each other with suitable waterproof material, such as tar. The cover shall have a minimum inside diameter of ten (10) inches. A secured cover shall weigh at least 65 pounds, or be secured through mechanical means, which require the use of tools for removal.
- (I) Septic tanks shall be pumped every three (3) years or when the sludge and scum level exceed one third (1/3) of the total liquid capacity.

#### **3701-29-07.1 Dosing Tanks and Dosing Pumps**

- (A) All dosing tanks shall be reviewed and approved the Trumbull County Board of Health. Dosing tanks and their components shall be watertight, structurally sound,

constructed of durable material such as concrete, fiberglass or plastic and shall be protected from corrosion and meet applicable ASTM standards.

- (B) The dosing tank shall be extended to grade and shall be provided with secured covers. A secured cover shall weigh at least 65 pounds or be secured through mechanical means, which would require the use of tools for removal. All joint connections shall be watertight and/or sealed with appropriate materials including, inlet and outlet pipe connections, unless the manufacturer demonstrates compliance with specifications of all ASTM C 923.
- (C) Dosing tanks shall be selected to accommodate the volume below maximum drawdown, the maximum design does including any drainback, and the design portion of the reserve and surge capacities as applicable. The STS design shall provide a reserve capacity for high water alarm events that is not less than the daily design flow. If time-dosed, the STS design shall accommodate combined reserve and surge capacities of not less than one hundred and fifty percent of the design flow.
- (D) 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 STS.
  - (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.
- (E) A dosing siphon may only be used if the STS design requirements, including the design flow rate, dose capacity, and any pressure distribution parameters, can be met and maintained.
- (F) 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 STS having any dosing component. Time-dosed STS 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

and motor. The board of health may require that the alarm be located in closer proximity to the dwelling or structure when the STS 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 STS specifications, and shall include written instructions related to standard operation and alarm events.
- (G) The designer and/or installer shall assure that all electrical wiring meets the national electric code.
- (H) STS components described in this rule shall be installed, operated and maintained as specified by the manufacturer or the approved plan.

### **3701-29-08 Aerobic Type Treatment Systems**

- (A) Aerobic type treatment systems shall comply with ANSI/NSF International Standard 40 relating to materials, designs, construction, performance, operation, maintenance, and safety of the system in effect at the time of acceptance of a system by O.D.H. and/or State Technical Advisory Committee.
- (B) In addition to Section (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 ten (10) inches, shall be accessible from the surface of the ground, and shall be provided with a secured cover. The sample well shall be constructed of durable and waterproof material, such as concrete, fiberglass or smooth PVC plastic with a minimum wall thickness of SDR 35. The inlet pipe shall extend two (2) inches into the well and be properly sealed, and the flow line of the inlet shall be installed four (4) inches above the outlet flow line.
  - (2) The system shall be sized on the basis of 120 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.
  - (4) A trash trap will precede the aeration chamber and shall be capable of meeting daily design flow of the system or as otherwise specified by the manufacturer.
  - (5) All aerobic treatment units, which will be used for off-lot discharge, shall be equipped with a fail-safe device to prevent nuisances. This shall be accomplished through the use of a dosing chamber as described in Section 3701-29-07.1, and wiring the aeration pump directly to the dosing pump.

- (C) An aerobic type treatment system may be permitted under the conditions provided in regulation 3701-29-02(G) for off-lot discharge once an NPDES permit is first obtained from OEPA, or in conjunction with a leaching tile field, or other approved on-lot distribution network (mound or drip system) by O.D.H. to prevent water pollution or a nuisance.
- (D) Prior to off-lot discharge, the effluent from an aerobic type treatment system shall discharge through a filter conforming to the requirements of regulation 3701-29-09 or 3701-29-14 of the Trumbull County HSTS Regulations, so that the requirements of regulation 3701-29-02(G)(3) will not be exceeded.
- (E) All aerobic treatment units, which will be used for off-lot discharge, shall be equipped with a disinfection device as described in Section 3701-29-08.1 of these rules.

### **3701-29-08.1 Disinfection for Off-Lot Discharge**

- (A) All effluent from an aerobic treatment unit must pass through a disinfection device prior to off-lot discharge conforming to Sections (1) or (2) of this rule.
  - (1) When chlorination is utilized for disinfection, the follow shall apply:
    - (a) Only those chlorinators and/or tablet feed tube(s) which comply with NSF/ANSI Standard 46, "New Standard Adopted for Onsite Wastewater" and have received approval from the Trumbull County Board of Health shall be installed. (See Attachment A.)
    - (b) The chlorine feeder tube shall be installed at a point following filtration, but prior to the chlorine contact tank and must be accessible to grade with a secured cover.
    - (c) Sufficient chlorine shall be added to satisfy the sewage demand. Only chlorine tablets designed for wastewater treatment may be used.
    - (d) In order to provide sufficient retention time of at least 20 minutes to bring about the efficient bacterial destruction of organisms, the chlorinated effluent shall be retained in a chlorine contact tank.
    - (e) The chlorine contact tank shall be water tight and receive approval for use from the Trumbull County Board of Health. The minimum liquid level of the tank shall be 150 gallons.
    - (f) In order to reduce the chlorine residual of the effluent to less than the Ohio EPA requirement of 0.038mg/L prior to the discharge into the environment, a dechlorinator containing a tablet feed tube shall be required to be installed following the chlorine contact tank.
    - (g) Only those dechlorinators and/or tablet feed tube(s), which comply with NSF/ANSI Standard 46 may be installed. The feeder tube must be accessible to grade with a secured cover.

- (2) When ultraviolet is used for disinfection, the following shall apply:
- (a) Only those ultraviolet light units for disinfection which have received board of health approval and comply with NSF design as applicable may be used.
  - (b) The ultraviolet light unit shall be designed to satisfy the sewage demand and provide sufficient retention during peak flows to achieve effective bacterial kills.
  - (c) The ultraviolet light unit shall be equipped with an audio and visual alarm to notify the owner of a system failure and shall comply with the items listed in 3701-29-21 (A)(6).
  - (d) The ultraviolet unit described in this rule shall be installed, operated and maintained as specified by the manufacturer or the approval plan.

### **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 30 square feet. (See Table 2.)
- (B) The effective size of the filter sand shall be six-tenths (.6) to one (1.0) millimeter with a uniformity coefficient not to exceed three (3.0) with receipt required.
- (C) The minimum depth of the filter sand shall be 18 inches.
- (D) A minimum of twelve (12) 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 comply with the requirements specified in Section 3701-29-07.1.
- (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 ten(10) inches shall be installed on the surface sand filter discharge line within six (6) feet of the filter bed, accessible from the surface of the ground, and provided with a secured cover.
- (J) The maximum hydraulic load should not exceed twelve (12) gallons per day per square foot.
- (K) The filter shall be sized on the basis of an anticipated flow of 120 gallons per day per bedroom.
- (L) Installation of equal-sized dual beds with alternating flow shall be required to facilitate required maintenance and prevent disruption of service.
- (M) Surface sand filters shall be installed into the ground so that the final depth of installation is that to where the top of the sand filter box is twelve (12) inches above the original grade of the ground.
- (N) The lower collector line of the sand filter shall be aligned directly to the bottom of the sand filter box with openings in the bottom position. The collection line shall be embedded into six (6) inches of number 57 clean washed gravel and topped off with three (3) inches of pea gravel.

**Table 2. Sand Filter Sizing**

Dwelling Units/Bedrooms	Subsurface Square Feet	Surface Square Feet
1 – 2	300	30
3	360	30
4	480	40
5	600	50
6	720	60
7	840	70

**3701-29-10 Installation Requirements for Soil Absorption & 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. The health commissioner may require the owner at the owner's expense to provide a written site evaluation by a qualified person before a final decision is made in issuing a permit. The criteria of the national cooperative soil survey shall be used as a guideline by the health commissioner to determine the suitability of the soils in lieu of a more detailed guideline relating to code requirements and soil characteristics.
- (C) Leaching tile systems will not be installed where the soil has been so disturbed or damaged that it inhibits, impedes or prevents the absorption or percolation of sewage effluent. If an applicant wishes to install a HSTS in conformity with these regulations in distributed soil, he shall submit data sufficient to prove the disturbance will not inhibit, impede or prevent the proper function of the system.
- (D) The bottom of a proposed leaching/distribution system utilizing soil absorption as the final treatment process shall maintain a vertical separation distance of at least 1 foot to normal ground water and/or perched seasonal water table.
- (E) Leaching systems utilizing soil absorption and percolation shall be constructed where soil layers of at least twelve (12) inches below the bottom of the proposed system are capable of conducting water at a rate between three (3) minutes per inch to 120 minutes per inch. Refer to Tables 3 and 4 to determine minimum leach field requirements.
- (1) Site conditions, such as but not necessarily limited to, thin or eroded top soil, presence of hydric plants, poorly drained soils, or pockets of standing water may require additional lineal feet of trench.

**Table 3. Minimum Leaching Field Absorption Area Requirements for One or Two Bedroom Homes**

<b>Permeability inches/hour</b>	<b>Permeability minutes/inch</b>	<b>Soil Description</b>	<b>Total Linear Feet of Trench</b>	<b>Each Additional Bedroom</b>
20 – over	1 – 3	Very Slight	Not Suitable	-
6 – 20	3 – 10	Slight	300	150
2 – 6	10 – 30	Moderate	400	200
1 – 2	30 – 60	Moderately Severe	500	250
0.5 – 1	60 – 120	Severe	600	300
Less than 0.5	120 – over	Very Severe	Not Suitable	-

**Table 4. Soil Types in Trumbull County**

<b>Name</b>	<b>% Slope</b>	<b>Rating</b>
Chili Loam	0 – 12	Slight
Lakin Loamy Sand	2 – 8	Slight
Oshtemo Sandy Loam	2 – 12	Slight
Elnora Loamy Sand	2 – 6	Moderate
Glenford Silt Loam	2 – 12	Moderate
Rawson Silt Loam	2 – 6	Moderate
Seward Loamy Sand	2 - 6	Moderate
Cambridge Silt Loam	2 – 12	Moderately Severe
Canfield Silt Loam	2 – 12	Moderately Severe
Rittman Silt Loam	2 – 12	Moderately Severe
Haskins Loam	0 – 6	Moderately Severe
Jimtown Loam	0 – 6	Moderately Severe
Caneadea Silt Loam	0 – 6	Severe
Darien Silt Loam	0 – 6	Severe
Ellsworth Silt Loam	2 – 12	Severe
Fitchville Silt Loam	0 – 6	Severe
Mahoning Silt Loam	0 – 12	Severe
Platea Silt Loam	0 – 12	Severe
Ravenna Silt Loam	0 – 6	Severe
Venango Silt Loam	0 – 6	Severe

- (F) Soils not listed in Table 4 shall be evaluated as a variance as required by 3701-29-20 of the TCGHD HSTS Regulations on the basis of data provided by an applicant. Refer to Section 3701-29-20.1 of these rules titled, “HSTS Experimental Concurrence Requests.”

- (1) When determining experimental treatment systems, consideration shall be given to the economic impact of the system based on the availability and use of any new sewage treatment system technology that is recommended for use by the Sewage Treatment System Technology Advisory Committee.

**Table 5. Geo-Textile Fabric**

<b>Property</b>	<b>Test Method</b>	<b>Minimum Average Roll Value</b>
Grab Tensile, lbs.	ASTM D4632	60
Grab Elongation, %	ASTM D4682	50%
Mullen Burst, psi	ASTM D3786	65
Puncture, lbs.	ASTM D4833	18
Trapezoidal Tear, lbs.	ASTM D4533	25
AOS, US Sieve #	ASTM D4751	30

### **3701-29-11 Leaching Tile Field**

- (A) Total field requirement shall be divided into two (2) equal sections and provided with a diversion device equipped to provide alternate flow to each section of the field. The diversion device inspection ports shall be brought to grade and shall be provided with secured covers.
- (B) Leaching field absorption area requirements for HSTS shall be adequate to prevent water pollution or a nuisance, except those sites eliminated by Regulations 3701-29-01 to 3701-29-26 of the Trumbull County HSTS Regulations.
- (C) The minimum distance between any leaching lines shall be six (6) feet.
- (D) The minimum distance between any leaching line and any drain line located on the lot shall be eight (8) feet.
- (E) A leaching trench shall have a minimum of 12 inches of clean gravel or stone fill, extending at least two (2) inches above and six (6) inches below the leaching line; such fill shall be three-fourths (3/4) inch to one and a half (1½ ) inches in size.
- (1) Poorly drained soils shall use a minimum of 15 inches of clean gravel in the trenches.
- (F) A leaching trench shall have a minimum width of 18 inches. The depth shall be at 18 inches, and the bottom of the excavation shall be level throughout the length of the trench and follow the contour of the original topography.

- (G) A leaching line shall have a maximum length of 150 feet.
- (H) A leaching line pipe shall have a minimum diameter of four (4) inches and shall have a relatively level grade. The pipe shall be a minimum of 3,000 lb. crush strength with perforations on the underside of the pipe at 5 and 7 o'clock positions. The end of each leach line pipe shall be capped with a four (4) inch plastic cap. The grade shall not exceed a fall of one (1) inch in 50 feet.
- (I) The top of the gravel stone fill shall be covered with a pervious material, known as a geo-textile fabric, before covering with six (6) to eight (8) inches of earth. Refer to Table 4 for approved types of geo-textile fabric.
- (J) The land surface shall be graded so as to exclude surface drainage from the HSTS.
- (K) Topsoil will be placed in the area remaining above the stone fill.
- (L) Wastewater shall be distributed to the leaching trenches by the use of drop boxes with 90° flood elbows and shall be brought to grade with secure covers. Lines leading from a point of 10 feet past the last sewage tank, to the diversion box, then to the drop boxes, and finally to a point of five (5) feet into a leach line shall be four (4") inch solid wall driven slip joint PVC SCR 35 pipe. Clay shall be packed around the solid pipe between the box and the leach line to prevent effluent from ponding around or beneath the boxes.
- (M) Pipe fittings, which are installed, must be marked in conformity with the governing standards as specified in Table 6.

**Table 6. Governing Standards**

<b>Material</b>	<b>Governing Standard</b>
Clay pipe	
Clay drain tile, standard and extra strength	ANSI A106.3 – 1967 ANSI A106.4 – 1967 ASTM C4-64 (1975) FS SS-P-361E - 1973
Perforated clay drain tile, standard and extra strength	ASTM C498-65 (1975) ANSI A106.1 – 1969
Vitrified clay pipe, standard extra strength and perforated	ASTM C700-74
Vitrified clay pipe joint, using materials having resilient properties compression joints	ASTM D425-75
Concrete and Bituminous Pipe	
Concrete drain tile, standard extra or special quality	ASTM C412-65
Concrete sewer, storm drain, and culvert pipe	ASTM C14-75

Concrete pipe, perforated, standard and extra strength	ASTM C444-73
Asbestos-cement nonpressure small diameter sewer pipe	ASTM C644-74 FD SS-P-331D(I)-73
Circular concrete sewer and culvert pipe joints using flexible, watertight rubber-type gaskets	ASTM C443-74
Homogeneous bituminized fiber drain and sewer pipe	ASTM D1361 – 73 CS 116-54
Laminated-wall bituminized fiber drain and sewer pipe	ASTM C1862-73
Bituminized fiber pipe, perforated for septic tank disposal fields, homogeneous	ANSI A176.4 – 1971 ASTM D2312-69 FD SS-P-1540a – 1969
Bituminized fiber pipe, perforated for septic tank disposal fields, laminated wall	ANSI A176.6 – 1971 ASTM D2313-73 FS SS-P-1540a – 1969
Plastic Pipe	
Acrylonitrile-butadiene-styrene (ABS) drain, waste, and vent pipe and fittings	ASTM D2661-74 CS 270-65
ABS sewer pipe and fittings	ASTM D2751-75
ABS plastic pipe and fittings, solvent cement	ASTM D2235-73
Polyethylene (PE), corrugated	ASTM F405-74
Polyvinylchloride drain, waste, and vent pipe and fittings	ASTM D2665-14 CS 272-65
PVC sewer pipe fittings (includes perforated pipe)	ASTM D2729-74
Type PSP Poly (PVC) sewer pipe and fittings	ASTM D3003-75
Type PSP Poly (PVC) sewer pipe and fittings	ASTM D3034-75
PVC plastic pipe and fittings, solvent cement	ASTM D2564-73
Plastic drain and sewer pipe joints, using flexible elastomeric seals	ASTM D3212-73T
Thermoplastic materials, pipe, fittings, valves, traps and joining materials	NSF 14, nSf - DWV

- (N) Leaching chambers may be used in place of the above-mentioned pipe and stone. The chambers shall be approved for use by the Ohio Department of Health and the Trumbull County Board of Health. The leaching chambers shall only be considered on a 1:1 ratio use, and shall comply with all other provisions of these rules. Only those licensed installers, which have completed a certification process of installation by the manufacturer, shall be permitted to install the chambers in this county.

- (1) Proprietary soil absorption components or alternative aggregate product specified in an approved site plan shall be installed in accordance with the manufacturer's installation instructions or product specifications provided they do not conflict with this chapter.

### **3701-29-12 Curtain Drain or Interceptor Drain**

- (A) A curtain/interceptor drain shall be provided in soil subject to seasonally high ground water table. The curtain/interceptor drain shall be installed not less than six (6) inches below the leaching trench bottom, and shall be at least eight (8) feet from the centerline of any leaching line. The depth differential between the curtain/interceptor drain and the leaching trench will be increased based upon distance to a zone of lesser impermeability and/or the width of the leaching tile field.
- (B) Unless an open out-fall is present on the property, a curtain/interceptor 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 ten (10) inches and shall be on the discharge line adjacent to the leaching system.
- (C) When off-lot disposal of curtain/interceptor drain 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.
- (D) A curtain drain shall be installed to be 360° around the leaching tile field.
- (E) An interceptor drain shall be installed to be 270° around the leaching tile field.
- (F) A curtain/interceptor drain trench shall have a minimum width of 12 inches and shall be filled to the surface of the ground with clean gravel that is ¾ inch to 1½ inches in size.
- (G) A curtain drain shall be installed on lots with topography of 6% slope or less.
- (H) An interceptor drain shall be installed on lots with topography exceeding 6% slope.
- (I) The pipe(s) used in a curtain/interceptor drain trench shall be 4" slip joint plastic pipe, with a minimum of 3,000 lb. crush strength with perforations on the upper side at the 6 and 9 o'clock positions.
- (J) The curtain/interceptor drain line discharge pipe(s) shall be 4" solid wall driven slip joint PVC SDR 35 pipe, beginning at the end of the gravel fill to the point of discharge. The end of the discharge shall be protected with an animal guard fastened securely to the pipe(s).

### **3701-29-13 Leaching Pit**

- (A) A leaching pit shall be installed only in areas where gravel deposits underlie the ground surface and the seasonally high water table is not less than 10 feet below the bottom of the leaching pit. Test borings to determine the suitability of the soil shall be constructed to a depth of at least 10 feet below the bottom of a proposed leaching pit prior to issuance of an installation permit.
- (B) A leaching pit shall be a minimum of 150 feet from any water supply source, 10 feet from any lot or right-of-way, and 20 feet from any occupied building.
- (C) A leaching pit shall be provided with a secured cover extended to ground level.
- (D) Leaching pits may not be used in any area where there is a risk of groundwater contamination.

### **3701-29-14 Subsurface Sand Filter**

- (A) A subsurface sand filter shall be permitted only under the conditions provided in regulation 3701-29-02(G) of the TCGHD HSTS Regulations.
- (B) A subsurface sand filter shall have a minimum filter area of 240 square feet per bedroom, unless the filter is dosed. When dosed, the filter shall have a minimum filter area of 300 square feet or 120 square feet per bedroom whichever is greater. The total filter areas shall be divided into two (2) beds, each with a separate distribution system. Provision shall be made for alternating from one bed to the other by gravity or pumping.
- (C) A sewage dosing tank or a sewage lift tank shall have a minimum working volume of 75 gallons, shall extend to finish grade and shall be provided with secured covers. Refer to Section 3701-29-07.1
- (D) When a subsurface sand filter is dosed, the distribution system shall be vented to the surface of the ground at the lower end of each bed by one (1) or more vented caps having a minimum inside diameter of four (4) inches.
- (E) All distribution lines shall have a minimum diameter of four (4) inches and shall have a relatively level grade. The grade shall not exceed a fall of One (1) inch in 50 feet.
- (F) The distribution lines shall be installed within a minimum of 12 inches of clean gravel or stone  $\frac{3}{4}$  inch to  $1\frac{1}{2}$  inches in size, which covers the entire bed. The lines shall be laid on three (3) foot centers and 18 inches from the sidewalls of the filter.
- (G) The filtering material shall be a minimum of 18 inches in depth and the sand shall be an effective size of four-tenths (.4) to one (1) millimeter with a uniformity coefficient not to exceed three (3).

- (H) The lower or collecting line shall have a minimum diameter of four (4) inches and shall be laid the full length of the bed. The grade shall have a minimum fall of six (6) inches in 50 feet.
- (I) The collecting line shall be installed within a minimum of 12 inches of clean gravel or stone  $\frac{3}{4}$  " to  $1\frac{1}{2}$  " in size, which underlies the entire bed. All pipe and fittings must be marked in conformity with the governing standards as specified in Table 5, regulations 3701-29-11.
- (J) The top of the filter shall be covered with a pervious Geo-textile fabric in Table 5, before being covered with earth.
- (K) The earth cover shall not exceed 18 inches.
- (L) A sampling well with a minimum inside diameter of ten (10) inches shall be installed on the subsurface sand filter discharge line within six (6) feet of the filter bed, accessible from the surface of the ground, and provided with a secured cover.

### **3701-29-15 Privy**

- (A) A privy shall be provided with watertight vaults or other watertight receptacles of not less than 500 gallons capacity, except as specified in Section (B) of this rule and shall be a minimum of 50 feet from any water supply source, and 20 feet from any occupied building or lot or right-of-way line.
- (B) A vault may be constructed with an open or porous bottom if it is located not less than 100 feet from any water supply source, and so located that the liquids leaching from the vault will not discharge at the ground surface, or into limestone, sandstone, shale, or other rock formation. The vault shall not be permitted where the depth to the seasonally high water table is less than four (4) feet below the bottom of the proposed vault.
- (C) The construction and design of the vault and superstructure shall prevent access by insects, fowl or animals.
- (D) A privy shall be cleaned before the contents reach the top level of the vault.
- (E) A privy may only be considered through a variance process in Section 3701-29-20.

### **3701-29-16 Building Sewer**

- (A) A building sewer shall have a minimum diameter of four (4) inches.
- (B) A building sewer shall be watertight and constructed of durable material, capable of withstanding a 10-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. For purposes of this section, the pipe shall be installed at a minimum of 1/8" fall per foot to a maximum grade of 1/4" of fall per foot.
- (E) A building sewer shall be a minimum of 10 feet from any household water supply source and water service line.
- (F) The beginning point of the building sewer pipe to a point of 10 feet past all sewage tanks shall be constructed of solid wall schedule 40 PVC and sealed with glue. All pipe and fittings, which are installed, must be marked in conformity with the governing standards as specified in Table 5.
- (G) A building sewer extending a distance greater than 50 feet shall have cleanouts installed at each 50-foot level.

### **3701-29-17 Inspections**

- (A) The Health Commissioner may at any reasonable time during the course of construction or any time thereafter, inspect any HSTS or part thereof, sample the effluent, or take any other steps, which he deems necessary to insure proper compliance with regulations 3701-29-01 to 3701-29-26 of the TCGHD HSTS Regulations. The Health Commissioner may utilize inspection reports or other data submitted or obtained from reliable sources to determine compliance.
- (B) No HSTS or part thereof shall be covered or put into operation until the system has been inspected and approved by the Health Commissioner.
- (C) If upon inspection, the work is determined not to conform to these regulations, a second inspection will be required. The installer shall notify the department when he or she is ready for re-inspection.
- (D) A fee of fifty dollars (\$50.00) shall be assessed to and collected from the installer for the second and subsequent inspections.

- (E) The following type of inspections shall be required:
- (1) Site/Lot Evaluation – once a complete application is received with a soil evaluation and fee is collected. This is to determine preliminary specifications.
  - (2) Staking Inspection – to verify preliminary specifications can be achieved for installation.
  - (3) Final Inspection – to insure compliance with permit and installation requirements.
  - (4) All systems installed after 7/1/07 shall be inspected one (1) year after installation to ensure system is not creating a public health nuisance.
  - (5) Sewage Tank Trucks – to insure compliance.

### **3701-29-18 Abandoned Household Sewage Treatment System**

- (A) An abandoned household sewage tank shall be pumped out by a sewage tank cleaner registered with the Trumbull County Board of Health and then the bottom and a side wall crushed and the tank filled to the surface of the ground with suitable material.
- (B) A tank abandonment form must be filled out by the individual performing the work on a form provided by the department, and submitted to the Trumbull County Health Department, along with the pump receipt, within thirty (30) days of the tank being abandoned.

### **3701-29-19 Hearing**

The Board of Health shall grant a hearing to any person affected or aggrieved by Rules 3701-29-01 to 3701-29-26 of the TCGHD HSTS Regulations.

### **3701-29-20 Variance**

- (A) The Board of Health may grant a variance from the requirements of Rules 3701-29-01 to 3701-29-26 of the TCGHD HSTS Regulations, as will not be contrary to the public interest, where a person shows that because of practical difficulties or other special conditions, their strict application will cause unusual and unnecessary hardship. However, no variance shall be granted that will defeat the spirit and general intent of said rules, or be otherwise contrary to the public interest. Such variance shall not be detrimental to public health or safety.
- (B) Experimental systems may be installed under the provision of 3701-29-20(A) after review of the proposal by the Health Commissioner provided the Director of the Ohio Department of Health (O.D.H. ) concurs in writing with the design and evaluation plan, in compliance with Rule 3701-29-20.1

- (C) HSTS components or HSTS differing in design or principle of operation from those set forth in rules 3701-29-01 to 3701-29-26 of the TCGHD HSTS Regulations, 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 treatment components or systems complying with such regulations. Such approval shall be obtained in writing from the Director of O.D.H.
- (D) Rules 3701-29-01 to 3701-29-26 of the TCGHD HSTS Regulations are minimum standards. The Trumbull County Board of Health may adopt more stringent standards when local conditions indicate such standard are necessary.
- (E) Minor design deviations, which are not contrary to O.A.C. 3701-29 may be handled in-house by the environmental staff versus a variance from the Board of Health.

### **3701-29-20.1 Household Sewage Treatment System Experimental Concurrence Requests**

- (A) As of the effective date of this rule, any person considering the installation of a HSTS not mentioned in Section 3701-29-08 or 3701-29-11 of the TCGHD HSTS Regulations, must submit to the department for approval an Experimental System Design Review. This will be referred to as an alternative sewage treatment system.
- (B) Alternative sewage treatment systems shall only be proposed when the requirements described in Section 3701-29-10 of these rules cannot be adequately met.
- (C) Any person proposing to install an alternative sewage treatment system shall apply to the Board of Health for a variance, as mentioned in Section 3701-29-20 of these rules. The variance request shall be one of the following:
  - (1) Site specific individual system design
  - (2) General system design proposed for a specific number of sites.
- (D) The variance request for an alternative sewage treatment system shall be in writing and contain pertinent information as required by the Board of Health. Any fee established by the Board of Health shall accompany the request.
- (E) In addition to the variance request, the following information is required to be submitted for review:
  - (1) Detailed soil description with soil map.
  - (2) Site conditions.
  - (3) Design specifications related to soil depth credits, pretreatment, distribution mechanisms, (NSF-approved components), and electrical configuration.
  - (4) Calculations on loading rates to the soil.

- (5) Description of technical installation criteria.
- (6) Operation & Maintenance requirements for all components.
- (F) Once a request has been made, the department will conduct a lot evaluation at the site and record the findings on a form prescribed by the Board of Health.
- (G) Once all pertinent information is received and reviewed by environmental staff, the homeowner shall request a variance per Rule 3701-29-20(A) & (B).
- (H) If preliminary variance approval is granted by the Board of Health per Rule 3701-29-20(A) & (B), the department shall submit all information mentioned in Sections (D), (E) and (F), along with a cover letter prepared by the department, to the Ohio Department of Health (O.D.H.) for experimental review and concurrence.
- (I) Once concurrence is granted by ODH, the variance will be considered final and the homeowner shall sign an affidavit agreeing to all of the terms of the variance, which will be recorded on the owner's deed.
- (J) The homeowner shall purchase an operation permit, as required in Section 3701-29-04.2 of these regulations, renew it annually, and maintain the system in strict compliance with rules 3701-29-01 to 3701-29-26 of the TCGHD HSTS Regulations, or any special conditions that O.D.H. may stipulate. A copy of all effluent sampling and reports collected for each experimental system approved by the Board of Health, shall be submitted to O.D.H. by the TCGHD, on an annual basis, to demonstrate compliance.

### **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 (NPDES) permit issued under section 6111.03 of the Revised code or an injection well drilling or operation 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 (60) 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 non-community 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 health,

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 with 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 (60) 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.

### **3701-29-22 Inclement Weather Installations**

- (A) When a permitted STS cannot be reasonably and properly installed due to wet or other inclement weather soil conditions, during fall, winter, spring, or any other wet weather periods, a partial installation of tanks or other pre-treatment components may be allowed per Board Variance under this section. Such terms and conditions as contained herein are for the purpose of avoiding hardship to the prospective occupant while installation of such approved sewage system is delayed to a period more conducive of the said installation for a distribution network..
- (B) The prohibition will prevent the installation of an on-lot system utilizing in-situ soil as the final treatment and dispersal component to avoid compaction and smearing under the following conditions:
  - (1) Soils with a rating of moderately severe, severe, or very severe.
  - (2) Installations between November 1 to April 30.
  - (3) Excessive wet weather periods.
- (C) Any such restrictions shall be denoted on the installation permit and shall be honored by the installer. Should an installer ignore a restriction as stated in 3701-29-22(B), 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 or her registration should not be suspended or revoked.

- (D) A restriction to an installation may be lifted as described in 3701-29-22(B) when tests indicate that compaction and smearing will not occur, as follows:
  - (1) The registered installer must make the request in writing to the department.
  - (2) Arrangements are made to have a sanitarian present at the site.
  - (3) A backhoe is present to excavate a test pit.
- (E) Should a homeowner desire to occupy a dwelling during a restricted period without prior final approval, a request for a variance shall be made in writing to the Board of Health. The Board of Health may consider granting a variance and placing necessary terms and conditions to prevent nuisance conditions from being created.
- (F) An initial inspection shall be made by the Board of Health to demonstrate compliance with the terms of the variance and periodic inspections thereafter to insure nuisances are not being created.
- (G) The Board of Health may rescind a variance if it is determined that all applicable terms of the variance are not being met or nuisances are being created.

### **3701-29-23 For Sale of Property Evaluation**

- (A) Any individual or agent representing an individual proposing to sell or offering to sell or transfer title to a parcel of property that has an existing HSTS must have the system evaluated by the TCGHD before such sale or transfer takes place.
- (B) Application for the evaluation shall be in writing and contain pertinent information as required by the Board of Health. Any fee established for the evaluation by law or by the Board of Health under authority of law shall accompany the application.
- (C) Re-inspection fees are set by the Board of Health.
- (D) The inspection will be conducted to assure compliance with the TCGHD HSTS Regulations 3701-29-01 to 3701-29-26.
- (E) The TCGHD shall deny an evaluation if the information on the application is incomplete, inaccurate, or indicates that the provisions of regulations 3701-29-01 to 3701-29-26 of the TCGHD HSTS Regulations cannot be met.
- (F) When permit information is not on file, the owner at their expense will contract with a registered sewage installer to identify system components and make the system reasonable accessible to the TCGHD as required. A system diagram must be submitted to the health district for systems lacking permit information.
- (G) Off-lot sewage system evaluations will include sewage effluent sampling. All off-lot sewage systems must have an approved sewage effluent sample well installed unless otherwise directed by the health district.

- (H) All sample wells will be installed within six (6) feet of the last treatment components, unless otherwise directed by the health district.
- (I) Any system found to be creating a public health nuisance, as described in section 3701-29-02(D), must be repaired or replaced. A **Notice of Violation** will be issued giving the property owner 60 days to make the necessary corrections. This timeframe may be extended to the property owner upon a signed consent agreement with the director of environmental health.
  - (1) When determining whether a system will be repaired or replaced, the economic impact shall be considered.
- (J) System evaluations shall be valid for a period of one (1) year. Upon request, the evaluation period may be extended.

### **3701-29-24 Penalties**

These regulations are adopted pursuant to O.R.C. Section 3709-21. Any person who violates any provision of these regulations shall be subject to the penalties provided in Section 3709.99 of the Ohio Revised Code (O.R.C.). Each and every violation shall constitute a separate offense.

### **3701-29-25 Disclaimer & Effect of Partial Invalidity**

- (A) The TCGHD, the Trumbull County Board of Health, or any of its agents are responsible only for the approval of the design and installation of the HSTS. Once the system has been installed to state and local requirements, the responsibility for the proper operation and maintenance of the system is that of the homeowner.
- (B) Each regulation of 3701-29-01 to 3701-29-26 of the TCGHD HSTS Regulations and every part of each regulations is an independent regulation and a part of a regulation and the holding of any regulation or part thereof to be unconstitutional, void, or not effective for any cause does not affect the validity or constitutionality of any other regulations or part thereof.

### **3701-29-26 Repeal**

All regulations and parts of regulations in conflict with this regulation are hereby repealed and this regulation shall be in full force immediately upon its adoption, as provided by law. These regulations are adopted with respect to state laws, which, if changed, provide for more stringent regulations, shall govern.