

## SUMMARY OF PROPOSED CHANGES TO REGULATION 415

### **415-01 Definitions** (change wording of definition 32- This section has been truncated due to length)

As used in 415-01 to 451-25 of Clermont County General Health District's Sewage Treatment System Rules:

- 32) "Layout plan" ~~means~~ **is** a plan ~~that is~~ submitted by an installer in lieu of a new system design created by ~~an~~ onsite system designer. A layout plan utilizes designs and **non-proprietary** components ~~that have been previously approved by the Health District that meets all current regulations. If an installer submits a previously approved system that was developed by an outside designer, then the installer must include written approval from the designer to use that system in a Layout Plan.~~

**415-02 Purpose and scope** (no change)

**415-03 Authority, applicability, and related provisions** (no change)

**415-04 Responsibility for compliance, demonstration competency, and registration requirements** (no change)

**415-04.1 Installers** (no change)

**415-04.2 Septage haulers** (no change)

**415-04.3 Service providers** (no change)

**415-05 STS Fees and fee categories** (no change)

### **415-06 Sewage treatment requirements** (addition of point 6 under item G)

- A) The design, construction, installation, location, maintenance, and operation of household sewage treatment systems including, but not limited to, septic tanks, aerobic type treatment systems, filters, leaching fields, leaching trenches, building sewers, and privies or parts thereof shall comply with these rules and engineering practices acceptable to the Ohio department of health and current Ohio environmental protection agency effluent standards.
- B) Any dwelling which is not connected to a sanitary sewerage system shall be provided with an approved household sewage treatment system, prior to its being occupied.
- C) Each household sewage treatment system shall serve one dwelling on an individual lot and shall be properly maintained and operated by the owner. All the sewage from the dwelling shall discharge into the system. An SFOSTS may serve multiple dwellings or structures. In the case where two or more dwellings or structures are served by an SFOSTS, the entire SFOSTS shall be owned and operated by one person.
- D) No household sewage treatment system or part thereof shall create a nuisance.
- 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.

- G) Off-lot disposal of sewage effluent shall not be permitted except where the installation of an on-lot treatment system is not possible, as specified in rules 3701-29-10(A), 3701-29-10(B), and 3701-29-11(B) of the Administrative Code, and the following conditions are met:
- 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 of discharge 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.
  - 3) Sewage effluent quality as measured at the point of discharge in the system shall comply with current NPDES effluent standards established by the director of the Ohio environmental protection agency.
  - 4) When test results indicate that the standards set forth in rule 415-06(G) (3) are not being met or nuisances are being created, additional treatment devices may be required by the board of health.
  - 5) All reasonable means shall be taken to minimize the amount of effluent discharged off the lot.
  - 6) All discharging HSTS designs shall be submitted through a designer. Site and Soil evaluation requirement will be waived upon receipt of the approval letter from the Health District for coverage under Ohio EPA's discharge permit.
- H) Lots on which household sewage treatment systems for dwellings are to be installed shall be of suitable topography and area to permit compliance with rules 3701-29-01 to 3701-29-21 of the Ohio Administrative Code and these rules.
- I) A suitable area shall be available to provide for the complete relocation and replacement of the household sewage treatment system as required by rules 3701-29-01 to 3701-29-21 of the Ohio Administrative Code and these rules.
- J) Lots on which private water supplies are to be installed shall be of sufficient area to provide isolation of the water supply system from both the original household sewage treatment system and the area intended for any relocation and replacement on this or adjacent lots as required by rules 3701-29-01 to 3701-29-21 of the Ohio Administrative Code and these rules.
- K) A household sewage treatment system shall be a minimum of ten feet from any utility service line, driveway or other hardscapes such as pools or patios, property line or right-of-way boundary, any building or other structure, and fifty feet from any water supply source, surface water impoundment, lake, river, or perennial stream on this or any adjacent lot.
- L) No household sewage treatment system shall be installed, maintained, or operated on property accessible to a sanitary sewerage system.

- M) Whenever a sanitary sewerage system becomes accessible to the property, a household sewage treatment system shall be abandoned and the house sewer directly connected to the sewerage system.
- N) Roof water, foundation drain, cistern overflow, surface drainage, and subsurface drainage shall not be discharged into a household sewage treatment system.
- O) Plastics in any form, wet-strength paper towels, cloth of any kind, rubber products, throw-away baby diapers, cigarette stubs, sand, grit, coffee grounds, excess cooking oils or greases, solvents, paints, caustic or oily liquids or materials, kerosene, gasoline, motor oil, floor waxes, pet wastes or any other wastes known to adversely affect the household sewage treatment system shall not be deposited or flushed in plumbing fixtures nor shall they otherwise be introduced into a building sewer or household sewage treatment system.
- P) A STS shall comply with the following performance requirements and prohibitions:
- 1) A STS shall comply with the conditions specified in an installation and/or operation permit issued by the board of health.
  - 2) No STS shall be permitted for the holding, treatment or dispersal of industrial waste or storm water for industrial activities. For the purpose of this rule, the normal use of housekeeping products does not constitute industrial waste.
- Q) A STS shall utilize soil absorption as the means for final treatment and/or dispersal, except for the HSTS conditions and limitations described in paragraph (R) (2) of this rule.
- 1) A STS shall not be permitted for use in any new lot or new subdivision created after 01-01-2007 when soil absorption is not feasible.
  - 2) When soil absorption is determined to be infeasible for a replacement HSTS for an existing dwelling or a new HSTS for an existing lot, a discharging HSTS shall only be permitted in compliance with NPDES requirements.
- R) STS shall be sited in compliance with these rules including the following:
- 1) Sufficient suitable area shall be available to accommodate a STS including a designated area for complete relocation and replacement of a STS, the minimum horizontal isolation distances as required in paragraph (K) of this rule, and any additional horizontal isolation distance determined necessary to accommodate lateral flow due to shallow limiting conditions identified in the soil and site evaluation conducted in accordance with rule 415-09 of these rules.
  - 2) A permanent legal easement shall be required for any portion of a STS not sited on the same parcel as the structures or dwelling served by the STS. When an easement is required under this paragraph, a STS installation permit shall not be issued by the board of health until a certified copy of the legally recorded easement is provided.
- S) A STS shall not be sited under soil and site conditions that prohibit compliance with - these rules. The following are examples of conditions that may be prohibitive or may require additional siting, design or management conditions:

Summary of proposed changes to Regulation 415

- 1) Exposed bedrock, boulders, stones, gravel, and coarse sand at or above the surface of the ground or underlain within a foot of the ground surface.
  - 2) Slopes in excess of the limits of the design, installation, maintenance or operation of the proposed STS or when there is risk of slippage, slump, or land slide.
  - 3) Filled, reclaimed, or disturbed areas where soil and site conditions may not be - adequate to provide treatment and/or dispersal.
- T) Due to the nature of repair situations a Sewage Nuisance Abatement and Remediation Plan may be exempt from Section 415 as long as it meets the following:
- 1) It eliminates a Public Health Nuisance; and
  - 2) It takes the economic impact of a full replacement into consideration; and
  - 3) All sewage nuisance abatement and remediation plan interim phases shall lead to a final system that is in compliance with OAC 3701-29 and these regulations.

**415-07      Layout plans, design plans and as-built records (change the wording of item B and the addition of item C-11)**

- A) For all new home constructions either a layout plan or a design plan shall be required from a source outside of the health district. Changes to either of these plans must be signed off on by the designer, installer and Health District representative. Approval from the homeowner may also be required.
- B) A registered installer may submit a Layout Plan for the installation of a STS. A layout plan shall utilize **only non-proprietary** components ~~approved~~ and **must include a benchmark and grade elevations staked at the site for all critical components**. Those components shall be placed on the landscape according to the results of the site and soil survey. **Layout plans shall make every attempt to reduce the complexity and cost of maintenance that homeowners will incur over the life of the system**. A layout plan shall include:
- 1) A site plan drawn to scale on eight and a half inch by eleven inch or larger paper showing HSTS layout elevations corresponding to flagged or staked locations at the site. The designated HSTS area shall be protected from disturbance. The site plan shall also verify horizontal isolation distances and include the designated area for complete relocation and replacement of the STS.
  - 2) Written details on the daily design flow, selected loading rates based on the site and soil evaluation, system configuration with absorption area dimensions, and, if applicable, pump selection information and pressure distribution network description and calculations.
  - 3) Product information and written description of materials and system components including size of all tanks and distribution component materials including mechanical distribution and diversion mechanisms.
  - 4) Manufacturer O&M requirements or instructions for components not addressed in general O&M information available through the board of health or the department of health.

- 5) Any additional information requested by the board of health related to components, materials, and installation or O&M specifications.
- C) A design plan in compliance with this paragraph shall be required unless a layout plan is provided by a registered installer in compliance with paragraph (B) of this rule. A design plan shall be legible, readable, and of sufficient detail to demonstrate compliance with the provisions of these rules. **Design plans shall make every attempt to reduce the complexity and cost of maintenance that homeowners will incur over the life of the system.** A design plan shall include:
- 1) Documentation of the rationale for design decisions used to address site and soil limitations including justification for selected loading rates and the use of any soil depth credits. The site and soil evaluation shall be available with the design plan.
  - 2) Description of the dwelling and/or structures to be served by the STS with a designated daily design flow including any anticipated variations. The STS shall be designed to handle peak daily design flows or the design shall include flow equalization with designated reserve and surge capacity and timed dosing in compliance with rule 415-11 of these rules.
  - 3) Description of the treatment processes used to meet performance requirements including information necessary to confirm compliance with any applicable NPDES effluent quality standards or applicable standards established in rule 415-12 of these rules. In addition, if applicable, documentation of pollutant concentrations and mass loading in excess of residential waste strength, including the design for treatment to reduce higher strength wastewater to typical residential waste strength prior to distribution to a soil absorption component.
  - 4) Plan notes designating that the STS area shall be protected from disturbance, and additional plan notes as needed to explain any siting, installation, or O&M requirements or restrictions, including any preconstruction meetings at the site, conditions on the selection of an installer, STS start-up procedures or other designer-designated conditions.
  - 5) A site plan, drawn to a scale of one inch equals fifty feet or less, sufficient to demonstrate compliance with these rules and including but not limited to:
    - a) North directional arrow.
    - b) Identified vertical and horizontal reference point or benchmark with its location clearly marked at the site.
    - c) Designation of the described soil boring and/or excavation locations from the soil and site evaluation.
    - d) Outline of existing and proposed structures, driveways and other hardscapes, and other related items on the property.
    - e) Location of STS components and a replacement area.

- f) The dimensions of the property with horizontal isolation distances to the STS and replacement area from the items designated in paragraph (E) of rule 415-07 of these rules, including but not limited to private water systems and surface water features.
  - g) Topography for the areas of the dwelling and/or structures to be served and the proposed STS and designated replacement areas including an indication of drainage features in these and surrounding areas.
  - h) Designation of any easements, disturbed areas, or wooded areas within fifty feet of the proposed STS and replacement area, or other site characteristics or obstructions that may affect the installation or operation of the STS.
  - i) Means of access for O&M equipment to service the STS.
- 6) Enlarged plan view drawings of the STS components if the site plan scale does not allow for sufficient detail.
  - 7) Profile drawing showing elevations relative to surface grade sufficient to demonstrate compliance with these rules including the invert, or other elevations necessary to assess the hydraulic profile of STS components and any gravity or pumped discharge outlet elevations.
  - 8) Plan and section views for the STS components and/or attachments of component and material specification information.
  - 9) Installation and O&M instructions or a reference to materials where this information is available.
  - 10) Plan note requiring that the STS installer obtain designer approval prior to any intended changes to the plan and those changes be approved by the Health District prior to implementation.
  - 11) **Additional requirements for design plans:**
    - a) Site and Soil**
      - 1. All site and soil work shall be by a registered soil scientist
      - 2. Soil borings shall be identified at site.
      - 3. Soil sheets shall be submitted for primary area and replacement area.
      - 4. Primary and replacement areas must not be sited in disturbed areas.
      - 5. The infiltrative loading rate and the hydraulic loading rate are conservative and based on the most restrictive soil layer.
      - 6. Primary and replacement areas are sited outside of natural drainage ways.
      - 7. Soil work must identify linear loading rate and available landscape position.
      - 8. Soil work must identify limiting conditions and depths.
      - 9. Soil work will identify slope and shape of slope.
      - 10. Soil borings will be identified on site plan.
    - b) Floor plan for structure**
      - 1. Residential home plans must show all floors.
      - 2. Plans will be used to determine system size based on 120 gallons per day per bedroom.

**c) System design requirements**

1. System layout must be identified and tied to site plan by surveyor.
2. System is designed to handle peak flows.
3. Tankage size must meet or exceed rules.
4. Pumped systems must show surge and reserve levels (80% surge and reserve of peak flow minimum).
5. Tank bedding requirement from manufacture must meet or exceed installation best management practices manual.
6. Tank capacities must be specified in plan or tank sheet must be attached.
7. Float or transducer settings must be shown on plan.
8. Soil absorption designs must reflect the soil work in relation to separation distance and length and width.
9. System design must address surface water conditions.
10. Design must provide detailed specifications of materials such as filter sand, gravel type, leaching chambers, etc.
11. Pumped systems must provide a dosing worksheet that specifies start up information such as flow rate and what range is acceptable.
12. Design shall be specific about components such as laterals, orifice shields and observation ports.
13. Designer will be responsible for detailed installation guidance.
14. Designer will be responsible for detailed O&M information.
15. Designer will identify panel requirements and settings.
16. Designer recognizes that information left out will become subject to the Health District's installation best management practices manual for interpretation.
17. All design plans are required to have pre-construction conferences and that fact will be identified on the plan.
18. Design plan will note that an as-built will be required by Health District.
19. Layout and Design plans must maximize the usable depth of soil and length of the property. Mechanical and proprietary components should only be used in designs to compensate for site limitations.
20. Systems that require a proprietary treatment device must have specific installation information provided in detailed checklist form.
21. Systems that use proprietary treatment must have the vendor or independent 3<sup>rd</sup> party perform system start up to acknowledge system is installed and running correctly. This must be identified on the plan.
22. The vendor or 3<sup>rd</sup> party completed system start up must be received by the Health District one working day before installer calls for inspection.
23. Any system that requires a time dosed control panel or soil depth or area reduction credit for a pretreatment component must provide language requiring a service provider for the life of the system on the plan.
24. Any proprietary system being introduced to Clermont County shall have a service provider trained and registered prior to design approval.

~~11)~~ 12) An SFOSTS design must be approved and stamped by a Professional Engineer.

D) An as-built record shall be required to be completed by the registered installer for a completed STS installation or alteration as a condition of the installation or alteration permit and as a condition of registration in accordance with rule 415-04.1 of these rules. The as-built record does not substitute for a layout plan or design plan required in accordance with this rule. An as-built record shall include:

Summary of proposed changes to Regulation 415

- 1) A legible record on eight and a half inch by eleven inch or larger pages with copies provided to the owner and the board of health for inclusion in the permanent system file. Use of layout plan or design plan documents or as-built template forms may be acceptable.
- 2) Any changes to the approved design plan or layout plan including distances from installed STS components to any items having applicable horizontal isolation distances. A change in location of a STS from that designated on a layout or design plan shall not be made without prior approval by the board of health and shall not violate horizontal isolation distances required by these rules.
- 3) A designated vertical and horizontal reference point or benchmark with its location marked at the site.
- 4) Plan view drawing with elevations for installed STS components per the design plan or layout plan.
- 5) Profile drawings with pipe and component elevations to confirm depths for hydraulic flow, freeze protection, and other related installation functions.
- 6) Any additional information for components and materials may be required by the board of health including but not limited to manufacturer or supplier provision of component installation or O&M instructions and verification of compliance with any start-up procedures or aggregate specifications.
- 7) The as-built record shall include a statement by the registered installer indicating that the STS was installed in accordance with all applicable rules and plan specifications.

**415-08 Sewage source, building sewer, and related fixtures (no change)**  
**415-09 Site and soil evaluation (no change)**

**415-10 Permits for installation, alteration, remediation and operation (clarify point "a" under item B-3)**

- A) No person shall install or replace a STS without an approved and valid installation permit. No person shall alter a STS without an approved and valid alteration permit. The installation, replacement, or alteration of a STS shall only be conducted by an installer registered in compliance with rule 415-04.1 of these rules except in the case of a homeowner who may install, replace, or alter a HSTS for a single family dwelling that will serve or serves as the homeowner's primary permanent residence.
- B) No person shall maintain or operate a household sewage treatment system without an operation permit obtained from the board of health. An operation permit shall be in effect upon board of health approval of an installation, a replacement, an alteration or passing basic system assessment of an existing STS. The responsible party, whether it is the STS owner, a responsible management entity recognized by the board of health, or both, shall be subject to the terms and conditions of an operation permit.
  - 1) Terms and conditions of the operation permit shall be specified governing the operation, monitoring, maintenance, and abandonment of the STS.

- 2) An operation permit may be renewed, suspended, or revoked subject to the requirements of these rules, the terms and conditions of the permit, and the O&M management provisions established in accordance with rule 415-19 of these rules. An operation permit is subject to suspension or revocation conditional upon the responsible party's or parties' compliance with these rules and the terms and conditions of the permit.
  - 3) An operation permit shall require a service contract for a STS under the following conditions or as otherwise required by the board of health:
    - a) Any HSTS subject to a NPDES permit **or any HSTS that utilizes time dosing.**
    - b) Any STS with a pretreatment component subject to paragraph (G) of rule 415-12 of these rules.
- C) Application for permit shall be in writing and contain pertinent information as required by the board of health. Any fee established for a permit by law or authority of law shall accompany the application. A site review application is required for any proposed installation of a new or replacement STS and expires one year from the date of application. No person intending to install a new STS or replace an existing STS shall be issued an installation permit without an approved site review application.
- 1) A site review application shall include the application fee and all information required including the following as applicable:
    - a) The completed site and soil evaluation as required in rule 415-09 of these rules and the design plan or layout plan required in rule 415-07 of these rules for the installation of a STS for new construction, or
    - b) Information indicating absence of one foot of suitable in situ soil.
    - c) For purposes of siting a replacement STS, a completed site and soil evaluation as described in rule 415-09 of these rules may be required.
  - 2) A site review application for a STS alteration may be required and when required, shall contain all pertinent information as well as the required application fee. In the case where a remediation involves the expansion of a soil absorption component, a site and soil evaluation may be required in compliance with rule 415-09 of these rules.
  - 3) Board of health staff shall review the application information to determine whether the proposed design plan, layout plan, or STS alteration is applicable and complies with these rules. When a proposed STS is subject to a NPDES permit, compliance with NPDES requirements shall be assured prior to issuing a permit in accordance with paragraph (B) of this rule.
- D) The board of health shall issue a permit when the pertinent information indicates that the provisions of rules 415-01 to 415-25 of the CCGHD Sewage rules can be met. The board of health may specify terms consistent with rules 415-01 to 415-25 of the CCGHD Sewage rules on the permit governing the installation, alteration, and operation of the household sewage treatment system.

Summary of proposed changes to Regulation 415

- 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 415-01 to 415-25 of the CCGHD Sewage rules cannot be met.
- F) An installation permit shall remain in force until completion of the household sewage treatment system or for one year from the date of issuance, whichever occurs first. The permit may be revoked or suspended by the board of health. An operation permit shall remain in force until it expires, is revoked, or suspended by the board of health.
- G) The installation and operation of the household sewage treatment system or any part thereof shall conform to the requirements of rules 415-01 to 415-25 of the CCGHD Sewage rules and the terms of the permit as required by the board of health in division (D) of this rule

<b>415-11</b>	<b>Tanks, pumps, and controls</b>	(no change)
<b>415-12</b>	<b>Effluent quality standards and pretreatment provisions</b>	(no change)
<b>415-13</b>	<b>Soil absorption provisions</b>	(no change)
<b>415-13.1</b>	<b>Leaching trench requirements</b>	(no change)
<b>415-13.2</b>	<b>Mound with pressure distribution requirements</b>	(no change)
<b>415-13.3</b>	<b>Drip distribution requirements</b>	(no change)
<b>415-14</b>	<b>Site modification</b>	(no change)
<b>415-15</b>	<b>Curtain drain</b>	(no change)
<b>415-16</b>	<b>Privy</b>	(no change)
<b>415-17</b>	<b>Building sewer</b>	(no change)
<b>415-18</b>	<b>Inspections</b>	(no change)
<b>415-19</b>	<b>Operation and Maintenance, Basic System Assessments</b>	(no change)
<b>415-20</b>	<b>Subdivisions</b>	(no change)
<b>415-21</b>	<b>Small flow on-site sewage treatment system</b>	(no change)
<b>415-22</b>	<b>Abandoned household sewage treatment system</b>	(no change)
<b>415-23</b>	<b>Hearing</b>	(no change)
<b>415-24</b>	<b>Variance</b>	(no change)
<b>415-25</b>	<b>Management Districts</b>	(no change)