




STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION
ENVIRONMENTAL ENGINEERING PROGRAM

EHS Circular Letter 2010-84

To: Directors of Health
Chief Sanitarians
Professional Engineers
Licensed Installers & Cleaners

From: Robert W. Scully, PE 
Supervising Sanitary Engineer
Environmental Engineering Program

Date: December 30, 2010

Subject: Technical Standards' Revisions

The Technical Standards for Subsurface Sewage Disposal Systems have been revised effective January 1, 2011. It is anticipated that the updated standards will be available the first week of January on this program's website: www.ct.gov/dph/subsurfacesewage. A summary of the significant revisions is attached. Hard copies of the Technical Standards will be provided to local health department staff once they are available. A hard copy can also be obtained by sending a three-dollar (\$3) check or money order (payable to: Treasurer, State of Connecticut) after January 15, 2011 to:

Department of Public Health
Attention: Theresa Williams
410 Capitol Avenue
P.O. Box 340308, MS#51SEW
Hartford, CT 06134

Environmental Engineering Program staff will be conducting regional seminars around the state to provide updates on the revisions to local health officials, engineers, installers and other interested parties. All certified local health department staff should make arrangements to attend one of the seminars in order to receive updates on the revisions. Subsurface sewage disposal system installers and design engineers are also encouraged to attend.

Hard copies of the Technical Standards will be available for purchase at the seminars for \$3.00 cash or check. Checks must be made payable to: Treasurer, State of Connecticut. You may wish to download a copy of the Technical Standards for your review prior to the seminars. Local health departments have made the arrangements for the seminars, and in some cases seating is limited; therefore, you must pre-register for the designated location unless otherwise noted. Below is the list of the dates and locations of the seminars.



Phone: (860) 509-7296, Fax: (860) 509-7295
Telephone Device for the Deaf (860) 509-7191
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<u>Date/Time</u>	<u>Location</u>	<u>Registration Info & Sponsor</u>
January 20, 2011 Thursday 10:00 a.m. – 1:00 p.m.	Colchester Town Hall 127 Norwich Avenue Colchester, CT	(860) 537-3910 (leave message) Colchester Health Department
January 25, 2011 Tuesday 12:30 – 3:30 p.m.	Prospect Fire House 26 New Haven Road Prospect, CT	(203) 272-2761 Chesprocott Health District
January 27, 2011 Thursday 9:30 a.m. – 12:30 p.m.	Clinton Town Hall Auditorium 54 East Main Street Clinton, CT	<u>No registration required</u> CT River Area Health District
February 2, 2011 Wednesday 12:00 p.m. – 3:00 p.m.	Darien Town Hall 2 Renshaw Road Darien, CT	<u>No registration required</u> Darien Health Department
February 3, 2011 Thursday 10:00 a.m. – 1:00 p.m.	Windsor Town Hall Council Chambers 275 Broad Street Windsor, CT	E-mail: petrillo@townofwindsorct.com Windsor Health Department
February 10, 2011 Thursday 9:00 a.m. – 12:00 p.m.	Groton Town Annex 134 Groton Long Point Road Groton, CT	(860) 448-4882 ext. 304 Ledge Light Health District
February 17, 2011 Thursday 10:00 a.m. – 1:00 p.m.	Quinebaug Valley Community College 742 Upper Maple Street Danielson, CT	(860) 774-7350 Northeast District Department of Health Snow cancellation #: (860) 412-7399
February 24, 2011 Thursday 10:00 a.m. – 1:00 p.m.	Litchfield County Cooperative Ext. System UCONN Torrington Branch 843 University Drive Torrington, CT	(860) 489-0436 Torrington Area Health District Snow cancellation #: (860) 626-6808

cc: Suzanne Blancaflor, M.S., M.P.H., Chief, Environmental Health Section
Ellen Blaschinski, R.S., M.B.A., Chief, Regulatory Services Branch
Code Advisory Committee



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Summary of the January 1, 2011 revisions to the Technical Standards for Subsurface Sewage Disposal Systems

- **Section I Definitions:**

- Bedroom definition criterion revised to reference minimum floor area (70 square feet) for new bedrooms.
- Free draining material definition revised to note that such material is coarser than surrounding excavation material. Onsite sand and gravel can be used to backfill utility and storm water trenches in close proximity (5' to 25') to subsurface sewage disposal systems.
- Two (2) inch nominal tire chip aggregate definition revised to remove reference DEP's General Permit for the distribution of such material since permit has expired. No one currently has a DEP permit to distribute tire chips in CT for leaching system construction.
- Watertight tank seal definition added that includes reference to ASTM seal standards.

- **Section II Location of SSDSs:**

- Note added that minimum separating distances are measured horizontally; except for non-vertical closed loop geo-exchange bore holes that utilize measurements taken from the closest point of the borehole.
- Language in "special provisions" under Item A (Water Supply Wells, Springs, Domestic Water Suction Pipes) revised to allow a reduced distance (25') between water suction pipes and watertight tanks.
- Separating distance to closed loop geo-exchange bore hole or trench changed to 50 feet, and a provision provides a reduction to 25 feet for watertight tanks.
- Plan adherence language expanded to note that modifications to approved plan shall be authorized by the plan designer and local director of health.

- **Section III Piping:**

- Wording in Tables 2 and 2D revised to clarify that the approved piping is also for sewer piping that is in close proximity (25' – 75') from domestic water suction pipes.
- Table 2A revised to indicate that grease interceptor tanks are sources of pollution that need to be kept a minimum of 75 feet from all water supply wells (Greater distances for larger wells). Higher-grade piping (i.e., Schedule 40, ASTM 1785) specified for building sewer between building and grease interceptor tank effective January 1, 2011, which is consistent with the building sewer requirements for septic systems.
- Language in Tables 2-A & 2-B modified to clarify why public sewer piping & joint specifications are included in the Technical Standards, and provisions provided for DPH's Water Supply Section & Private Well Program to approve other public sewer piping that is proposed to be placed within the sanitary radius of water supply wells.



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- **Section IV Design Flows:**

- The language in subsection C (Water Usage Monitoring) revised to stipulate that large system (>2,000 GPD) plans shall include provisions to monitor domestic sewage generation via the use of water meters or other available means (i.e., pump cycling and dose volume documentation).
- The language in subsection E (Management Programs) revised stipulate that proposed ordinances and regulations shall be submitted to DPH for review prior to adoption.

- **Section V Septic Tanks & Grease Interceptor Tanks:**

- Language added recommending replacement of single-compartment septic tanks at time of leaching system repairs, and note added about assessments of single compartment tanks if they are to remain in place to confirm tank is in satisfactory condition and is properly baffled.
- Stipulation added that septic tanks shall have a minimum of 6 inches of cover.
- Current language stipulates tanks must provide a minimum detention time of 2 hours under peak flow conditions. Statement added that mathematically, the detention time is the volume of the liquid in the tank divided by the flow rate through the tank.
- Note added that effluent filters can be used in grease interceptor tanks however the manufacturer of the filter must specify suitability for this type of waste.
- Performance testing (Leakage Testing) language modified to note that such testing shall be required whenever tightness is critical such as when infiltration into a pump chamber is a concern, or when a tank is proposed within the sanitary radius of a water supply well. Wording on vacuum testing revised for consistency with recently published ATSM standard C1227-10a for septic tanks.
- Additional exceptions granted to the septic tank standard ATSM C1227-10a. Watertight tank seals (See new definition) required only if specified by plan designer. Effluent filters do not have to meet the performance criteria of NSF/AMSI Standard 46-2005, however approved filter companies must notify DPH by July 1, 2011 as to whether their filters meet this specification.

- **Section VI Effluent Distribution, Pump Systems & Air Injection Processes:**

- Wording added noting pump and electrical connections shall be readily accessible from the ground surface, and that the piping must be attached to the pump close enough to the top of tank under the manhole to allow for servicing, and a quick-disconnect device shall be utilized to allow easy removal of the pump for maintenance.
- Stipulation added that pump chambers in high groundwater areas must utilize watertight tank seals.

- **Section VII Percolation Tests:**

- Language revised to reference percolation rates of receiving soil rather than naturally occurring soil.

- **Section VIII Leaching Systems:**

- Note added to subsection E (Proprietary Leaching Systems) stipulating it is the responsibility of the company to ensure that installers are properly trained on installation protocols.
 - Language added to subsection G (Leaching System Approvals etc) stating that DPH can require third party/independent test data in conjunction with reviews/approvals of proprietary leaching systems that are deemed substantially different than those currently approved.
 - S-Box proprietary leaching systems removed as S-Box LLC has been dissolved.
 - Recently approved Geomatrix products (GST 37 Series & GeoMat Edge U-Shape) added.
 - Recently approved GreenLeach Filter products (Series 37) added.
 - Maximum ELA credit rating (29.9 SF/LF) added.
- **Section IX Groundwater, Roof, Cellar and Yard Drainage:** None
 - **Section X Other Wastewater:**
 - Language revised to note that DPH may authorize the discharge of minor volumes water treatment wastewater to a SSDS if DPH deems the discharge to be incidental.
 - **Section XI Non-Discharging Systems:** None
 - **Forms #1, 2, 3 & 4:**
 - Minor revisions to Form #3 (Tire chip reference eliminated, Comment added about checking system elevations)
 - **Appendix A, MLSS Revisions:**
 - Language revised to note that new systems and code-complying areas (B100a Intensification of Use: Conversions, Changes in Use) shall provide leaching system spreads meeting MLSS that is calculated based on the depth of naturally occurring receiving soil only.
 - Allowances made for repairs that can't meet the new system MLSS. These non-compliant repairs have a MLSS that utilizes receiving soil that includes both natural soil and fill material. Language revised to indicate that the permitted flow for non-compliant repairs on the discharge permit takes into account the hydraulic capacity of this receiving soil.
 - Potential repair areas identified for B-100a compliance purposes for proposed non-flow increasing building additions are allowed to consider fill for receiving soil.
 - **Appendix B & Appendix C:** None
 - **Appendix D, Approved Non-Concrete Septic Tanks:**
 - Update appendix to include the approved tanks based on most recent list revision (3/1/10).