



STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH

DEH Circular Letter #2004-3

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

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

Date: January 22, 2004

Re: Technical Standards Revisions

The Technical Standards for Subsurface Sewage Disposal Systems have been revised effective January 1, 2004. The standards are available on the program's website: www.dph.state.ct.us/BRS/Sewage/sewage_program.htm. Local health department staff will be provided copies of the code/Technical Standards in the near future. Copies can also be obtained by sending a three-dollar (\$3) check or money order (payable to: Treasurer, State of Connecticut) to:

Department of Public Health
410 Capitol Avenue
P.O. Box 340308
MS#51SEW, Attn. Mark Thompson
Hartford, CT 06134

Attached is a two-page summary of the major revisions to the Technical Standards. The program will be conducting 1/2-day regional seminars around the state to update directors of health, sanitarians, engineers, and installers on the revisions. Local health departments have made the arrangements for the seminars. Seating may be limited; therefore, you must pre-register by calling the phone number for the designated location.

<u>Date/Time</u>	<u>Location</u>	<u>Registration #</u>
January 28, 2004 Wednesday 10:00 a.m. – 1:00 p.m.	Quinebaug Valley Community College 742 Upper Maple Street Danielson	(860) 774-7350 Northeast District Dept. of Health
February 4, 2004 Wednesday 10:00 a.m. – 1:00 p.m.	Auditorium Essex Town Hall 29 West Avenue, Essex	(860) 767-4340 x 119 Essex Health Dept.
February 10, 2004 Tuesday 9:30 a.m. – 1:00 p.m.	Prospect Fire House 26 New Haven Road Prospect	(203) 272-2761 Chesprocott Health District



Phone: (860) 509-7296
Telephone Device for the Deaf: (860) 509-7191
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February 17, 2004 Tuesday 9:30 a.m. – 12:30 p.m.	Colchester Town Hall 127 Norwich Avenue Colchester	(860) 537-7214 Colchester Health Department
February 27, 2004 Friday 10:00 a.m. – 1:00 p.m.	Enfield Room Enfield Town Hall 820 Enfield Street, Enfield	(860) 745-0383 North Central Health District
March 4, 2004 Thursday 11:00 a.m. – 1:00 p.m.	Avon Room Avon Town Hall Ensign Drive, Avon	(860) 676-1953 Farmington Valley Health District
March 8, 2004 Monday 9:30 a.m. - 12:30 p.m.	Community Room Dime Savings Bank 290 Salem Tnpke (Rt 82), Norwich	(860) 823-1189 Uncas Health District
March 10, 2004 Wednesday 9:30 a.m. – 12:30 p.m.	North Branford Fire House 1537 Foxon Road (Rt 82) North Branford	(203) 481-4233 East Shore Health District
March 19, 2004 Friday 9:30 a.m. – 1:00 p.m.	Litchfield County Co-op. Ext. System UConn Torrington Branch 843 University Drive, Torrington	(860) 489-0436 Torrington Area Health District
March 24, 2004 Wednesday 9:30 a.m. – 1:00 p.m.	Brookfield Town Hall Pocono Road Brookfield	(203) 775-7315 Brookfield Health Department
March 31, 2004 Wednesday 9:30 a.m. – 1:00 p.m.	Darien Town Hall 2 Renshaw Road Darien	(203) 656-7320 Darien Health Department

All certified local health department staff should make arrangements to attend one of the seminars in order to receive updates on the code changes. Septic system installers and design engineers are also encouraged to attend.

Attachment

January 1, 2004
Technical Standards Revision Summary

Section I Definitions

- Modify accessory structure and building served definitions to clarify that accessory structures include enclosed non-winterized porches/sunrooms, and the building served includes 4 season/winterized porches/sunrooms.
- Modify bedroom definition to indicate large (minimum 5 feet width) openings or archways can be utilized to eliminate room privacy.
- One inch broken stone/one inch screened gravel now defined as stone aggregate (gradation specs included).
- Add definition for approved aggregate (To allow other approved product-Shredded tire chips currently being reviewed)
- Select fill: Stipulate suppliers of manufactured fill must provide an annual registration to DPH following approval.

Section II Location of Subsurface Sewage Disposal Systems

- Separation distance to wells (Item A) applies to potable, geothermal, and irrigation wells.
- Reduce building served (no drains) separation to 10 feet to septic tank only (special provision, Item C).
- Add utility service trench (gas, electric, cable, and phone) minimum 5 feet separation (New Item O).
- Stipulate record plan of the sewage disposal system, as built, must locate essential access points including tank manholes, distribution boxes, and leaching system ends. Drawing can be a plan to scale or a tie plan from two or more permanent reference points. Note that it is the responsibility of the installer of record to prepare/submit as-built unless engineered record drawing required by health director per PHC Section 19-13-B103d (e) (5).

Section III Piping

- Add pipes approved since 1/1/00.

Section IV Estimated Sewage Flows

- Section renamed Design Flows
- Note residential building design flow: 150 GPD/bedroom
- Distinguish between base flow (previously toilet flow) for high school (12 GPD), Jr. High/Middle School (9 GPD), Elementary/Kindergarten (8 GPD).
- Add: Motels w/kitchenettes no laundry: 100 GPD/room.
- Campground flows: Reduce from 100 GPD to 75 GPD per camp space
- Take out food service: 5 GPD/meal served
- Group Home: 100 GPD/client, note large tubs/onsite laundry require higher design flow
- Add: Barber shop, per chair: 50 GPD

Section V Septic Tanks

- Specify septic tanks shall not be shipped until the concrete is 4000 psi.
- Specify DPH must approve non-concrete septic tanks. Require installations be done in strict adherence with manufacturer's instructions. Include appendix of approved non concrete tanks (Appendix D).
- Riser retrofits on existing deep tanks only for cleanout opening(s) not baffle inspection openings.
- Grease trap: Change to grease interceptor tank. Allow for 2 compartment tanks. Note sections of septic tank standards that also apply to grease traps (i.e. marking info, structural/access requirements, cleaning, performance testing).
- Allow non-concrete grease interceptor tanks approved by DPH
- Set 1000-gallon total capacity as minimum grease interceptor tank size.
- Require increased septic tank capacity (250 gallons) for garbage grinder use.
- Add statement: In a properly functioning subsurface sewage disposal system, effluent should not backflow from the leaching system into the septic tank at the time of tank pumping. Such conditions indicate leaching system is surcharged. Note further system evaluation is warranted.
- Require increased septic tank capacity for food service/restaurants repairs where a grease interceptor tank or an internal grease recovery unit is not provided.
- Performance testing change: vacuum tests now require 4 inches of mercury rather than 2 inches.

Section VI Distribution of Sewage Effluent

- Specify requirements for combination septic tank/screened effluent pump vaults.
- Require force mains be adequately protected from freezing by burial below frost line or back draining through weep hole. In the later instance back siphonage from the leaching system must be avoided.
- Stipulate distribution boxes (or other access provisions) must be provided for all leaching systems.
- Incorporate Soil Air System and Terra-lift process into section. Stipulate that the SoilAir System (Wastewater Environmental Technologies/Geomatrix) and Terra-lift procedures are regulated activities and must be approved/permitted by local health department and can only be performed on leaching systems satisfactorily separated above maximum groundwater and ledge rock. Require repair plan be developed identifying code complying system or best available repair. Stipulate processes must not be done on cesspools or leaching systems providing less than 50% required ELA unless not feasible to expand. Allow local health departments to require leaching system expansion (or tank upgrades) on undersized systems.
- Specify pump system criteria
- Require performance testing for leakage when groundwater infiltration is a concern.

Section VIII Leaching Systems

- Increase minimum separation above maximum groundwater to 24 inches on faster than 1 minute per inch sites
- Reserve area must have suitable soil, or in the case of existing single-family home lots, potentially suitable soil. Potentially suitable soil is suitable soil except that there is 2-4 feet of naturally occurring soil above ledge rock.
- Stipulate topsoil in the primary leaching area, and reserve if to be prepared, must be removed prior to placement of select fill unless otherwise specified by design engineer.
- Add verbiage noting that fill placed in reserve area must be select fill to facilitate future use.
- Insert "by the licensed system installer" into the sentence: The leaching system shall be properly covered (insert here) within two (2) working days following the local health department's final inspection and approval.
- Stipulate leaching systems should be installed as shallow as possible and in no case shall the bottom of any system be installed more than 8 feet below finished grade.
- Add new leaching system credit ratings including Cultec PDS configurations.
- Stipulate select fill gradation specs for wet and dry sieve analyses. Dry sieve gradation: #100: 0-5%, #200: 0-2.5%
- Eliminate increasing leaching system size for large tubs.
- Stipulate manufactured fill approval requirements including annual registration with DPH

Section IX Groundwater, Roof, Cellar and Yard Drainage

- Stipulate storm water swales must be constructed to lead water away from the subsurface sewage disposal system.

Section X Other Wastewater

- Add DEP recommendation that a dedicated disposal system be provided for water treatment system backwash.

FORM #2 – Site Investigation Form

- Modified format

Appendix A MLSS

- Restrictive layer definition modification: When groundwater monitoring is used to determine, note that the average of at least 4 consecutive weekly readings taken in the most restrictive 30 day period of the wet season be used.
- Depth to restrictive layer definition: The average depth to restrictive layer in and down gradient (25-50') of the leaching system should be utilized.

Appendix B, C & D

- Add new approved filter fabric and outlet filters
- Create new Appendix D for approved non-concrete septic tanks