

## 19-13-B103a. Scope

**On-Site Sewage Disposal Systems with Design Flows of 5,000 Gallons per Day or Less and Non-Discharging Toilet Systems****19-13-B103a. Scope**

These regulations establish minimum requirements for household and small commercial subsurface sewage disposal systems with a capacity of 5,000 gallons per day or less, non-discharging toilet systems and procedures for the issuance of permits or approvals of such systems by the director of health or registered sanitarian, as required by Section 25-54i (g) of the General Statutes.

(Effective August 16, 1982)

**19-13-B103b. Definitions**

The following definitions shall apply for the purposes of Sections 19-13-B103c to 19-13-B103f, inclusive:

- (a) "Sewage" means domestic sewage consisting of water and human excretions or other waterborne wastes incidental to the occupancy of a residential building or a non-residential building, as may be detrimental to the public health or the environment, but not including manufacturing process water, cooling water, waste water from water softening equipment, blow down from heating or cooling equipment, water from cellar or floor drains or surface water from roofs, paved surface or yard drains.
- (b) "Septic tank" means a water-tight receptacle which is used for the treatment of sewage and is designed and constructed so as to permit the settling of solids, the digestion of organic matter by detention and the discharge of the liquid portion to a leaching system;
- (c) "Subsurface sewage disposal system" means a system consisting of a house sewer; a septic tank followed by a leaching system, any necessary pumps and siphons, and any ground water control system on which the operation of the leaching system is dependent.
- (d) "Residential building" means any house, apartment, trailer or mobile home, or other structure occupied by individuals permanently or temporarily as a dwelling place but not including residential institutions;
- (e) "Residential institution" means any institutional or commercial building occupied by individuals permanently or temporarily as a dwelling, including dormitories, boarding houses, hospitals, nursing homes, jails, and residential hotels or motels;
- (f) "Nonresidential building" means any commercial, industrial, institutional, public or other building not occupied as a dwelling, including transient hotels and motels;
- (g) "Impervious soil" means soil that has a minimum percolation rate slower than one inch in sixty minutes when the ground water level is at least eighteen inches below the bottom of the percolation test hole;
- (h) "Suitable soil" means soil having a minimum percolation rate of one inch in one to sixty minutes when the ground water level is at least eighteen inches below the bottom of the percolation test hole;
- (i) "Maximum ground water level" means the level to which ground water rises for a duration of one month or longer during the wettest season of the year;
- (j) "Open watercourse" means a well defined surface channel, produced wholly or in part by a definite flow of water and through which water flows continuously or intermittently and includes any ditch, canal, aqueduct or other artificial channel for the conveyance of water to or away from a given place, but not including gutters for storm drainage formed as an integral part of a paved roadway; or any lake, pond, or other surface body of water, fresh or tidal; or other surface area intermittently or permanently covered with water.
- (k) "Local director of health" means the local director of health or his authorized agent;
- (l) "Technical Standards" means the standards established by the commissioner of health services in the most recent revision of the publication entitled "Technical Standards for Subsurface Sewage Disposal Systems" available from the State Department of Health Services;
- (m) "Department" means the State Department of Health Services;

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**19-13-B103c. General provisions**

- (n) "Gray water" means domestic sewage containing no fecal material or toilet wastes.
- (o) "Drawdown area" means the area adjacent to a well in which the water table is lowered by withdrawal of water from the well by pumping at a rate not exceeding the recharge rate of the aquifer.  
(Effective August 16, 1982)

**19-13-B103c. General provisions**

- (a) All sewage shall be disposed of by connection to public sewers, by subsurface sewage disposal systems, or by other methods approved by the Commissioner of Health Services, in accordance with the following requirements.
- (b) All sewers, subsurface sewage disposal systems, privies and toilet or sewage plumbing systems shall be kept in a sanitary condition at all times and be so constructed and maintained as to prevent the escape of odors and to exclude animals and insects.
- (c) The contents of a septic tank, subsurface sewage disposal system or privy vault shall only be disposed of in the following manner.
  - (1) If the contents are to be disposed of on the land of the owner, disposal shall be by burial or other method which does not present a health hazard or nuisance; or
  - (2) if the contents are to be disposed of on land of other than the owner;
    - (A) The contents shall be transferred and removed by a cleaner licensed pursuant to Connecticut General Statutes 20-341, and
    - (B) Only on the application for and an issuance of a written permit from the local director of health in accordance with the provisions of this section;
  - (3) if the contents are to be dispersed on a public water supply watershed, only on the application and issuance of a written permit by the Commissioner of Health Services in accordance with the provisions of this section. Each application for a permit under (c) (2) and (3) shall be in writing and designate where and in what manner the material shall be disposed of.
- (d) All material removed from any septic tank, privy, sewer, subsurface sewage disposal system, sewage holding tank, toilet or sewage plumbing system shall be transported in water-tight vehicles or containers in such a manner that no nuisance or public health hazard is presented. All vehicles used for the transportation of such material shall bear the name of the company or licensee and shall be maintained in a clean exterior condition at all times. No defective or leaking equipment shall be used in cleaning operations. All vehicles or equipment shall be stored in a clean condition when not in use. Water use rinsing such vehicles or equipment shall be considered sewage and shall be disposed of in a sanitary manner approved by the local director of health.
- (e) Septic tanks shall be cleaned by first lowering the liquid level sufficiently below the outlet to prevent sludge or scum from overflowing to the leaching system where it could cause clogging and otherwise damage the system. Substantially all of the sludge and scum accumulation shall be removed whenever possible, and the inlet and outlet baffles shall be inspected for damage or clogging. Cleaners shall use all reasonable precaution to prevent damaging the sewage disposal system with their vehicle or equipment. Accidental spillages of sewage, sludge or scum shall be removed or otherwise abated so as to prevent a nuisance or public health hazard.
- (f) No sewage shall be allowed to discharge or flow into any storm drain, gutter, street, roadway or public place, nor shall such material discharge onto any private property so as to create a nuisance or condition detrimental to health. Whenever it is brought to the attention of the local director of health that such a condition exists on any property, he shall investigate and cause the abatement of this condition.  
(Effective August 16, 1982)

**19-13-B103d. Minimum requirements**

**19-13-B103d. Minimum requirements**

- (a) Each subsurface sewage disposal system shall be constructed, repaired, altered or extended pursuant to the requirements of this section unless an exception is granted in accordance with the following provisions:
  - (1) A local director of health may grant an exception, except with respect to the requirements of Section 19-13-B103d (d) and Technical Standard IIA, for the repair, alteration, or extension of an existing subsurface sewage disposal system where he determines the repair, alteration or extension cannot be affected in compliance with the requirements of this section and upon a finding that such an exception is unlikely to cause a nuisance or health hazard. All exceptions granted by the local director of health shall be submitted to the Commissioner Health Services within thirty days after issuance on forms provided by the Department.
  - (2) The Commissioner of Health Services may grant an exception to the requirements of Section 19-13-B103d (d) upon written application and upon a finding that:
    - (A) A central subsurface sewage disposal system serving more than one building is technically preferable for reasons of site limitations, or to facilitate construction, maintenance or future connection to public sewers, or;
    - (B) A subsurface sewage disposal system not located on the same lot as the building served is located on an easement attached thereto. Such easement shall be properly recorded on the land records and shall be revocable only by agreement of both property owners and the Commissioner of Health Services.
  - (3) The Commissioner of Health Services may grant an exception to the requirements of Technical Standard IIA, upon written application and upon a finding that such an exception is unlikely to pollute the well in such a manner as to cause a health hazard.
- (b) Technical standards. Subsurface sewage disposal systems within the scope of this regulation shall be designed, installed and operated in accordance with the technical standards established in the "Technical Standards for Subsurface Sewage, Disposal Systems" published by the Commissioner of Health Service Technical Standards shall be reviewed annually and changes to the Technical Standards shall be available on January 1st of each year.
- (c) Large subsurface disposal systems. The Commissioner of Health Services shall approve plans for subsurface sewage disposal systems serving a building with a designed sewage flow of two thousand gallons per day or greater, and no such systems shall be constructed, repaired, altered or extended unless the plans or such systems are approved by the Commissioner in accordance with the following:
  - (1) Plans for the system are submitted at least twenty days prior to approval to construct by the local director of health.
  - (2) The plans are designed by a professional engineer registered in the State of Connecticut.
  - (3) The plans submitted contain:
    - (A) The basis of design,
    - (B) Soil conditions and test pit locations.
    - (C) Maximum ground water and ledge rock elevations,
    - (D) Original and finished surface contours and elevations,
    - (E) Property lines, and
    - (F) Locations of buildings, open water, courses, ground and surface water drains, nearby wells and water service lines.
- (d) Location. Each building shall be served by a separate subsurface sewage disposal system. Each such system shall be located on the same lot as the building served.
- (e) Disposal of sewage in areas of special concern.

**19-13-B103d. Minimum requirements**

- (1) Disposal system for areas of special concern shall merit particular investigation and special design, and meet the special requirements of this subsection. The following are determined to be areas of special concern:
  - (A) A minimum soil percolation rate faster than one inch per minute, or
  - (B) Slower than one inch in thirty minutes, or
  - (C) Maximum ground water less than three feet below ground surface, or
  - (D) Ledge rock less than five feet below ground surface, or
  - (E) Soils with slopes exceeding twenty-five per cent, or
  - (F) Consisting of soil types interpreted as having severe limitations for on-site sewage disposal by most recent edition of the National Cooperative Soil Survey of the Soil Conservation Service, or
  - (G) Designated as wetland under the provisions of Sections 22a-36 through 22a-45 of the Connecticut General Statutes, as amended.
  - (H) Located within the drawdown area of an existing public water supply well with a withdrawal rate in excess of fifty gallons per minute, or within five hundred feet of land owned by a public water supply utility and approved for a future well site by the Commissioner of Health Services.
- (2) In such areas of special concern, the local director of health may require investigation for maximum ground water level to be made between February 1 and May 31, or such other times when the ground water level is determined by the Commissioner of Health Services to be near its maximum level.
- (3)
  - (A) Plans for new subsurface systems in areas of special concern shall:
    - (i) Be prepared by a professional engineer registered in the State of Connecticut;
    - (ii) Include all pertinent information as to the basis of design, and soil conditions, test pit locations, ground water and ledge rock elevations, both original and finished surface contours and elevation, property lines, building locations, open water courses, ground and surface water drains, nearby wells and water service lines;
    - (iii) Demonstrate an ability to solve the particular difficulty or defect associated with the area of special concern and which caused its classification. The Commissioner or local director of health, as the case may be, may require a study of the capacity of the surrounding natural soil to absorb or disperse the expected volume of sewage effluent without overflow, breakout, or detrimental effect on ground or surface waters if in their opinion such may occur.
  - (B) The plans for new subsurface disposal systems in areas of special concern shall be submitted to the local director of health and the Commissioner of Health Services for a determination as to whether the requirements of the subsection have been met, except that such submission need not be made to the Commissioner of Health Services if the local director or authorized agent has been approved to review such plans by the Commissioner of Health Services in accordance with Section B103e (b). All submissions to the Commissioner of Health Services shall be made at least 20 days prior to issuance of an approval to construct by the local director of health.
- (4) If application is made for the repair, alteration or extension of an existing subsurface disposal system in an area of special concern, the local director of health may require that the applicant comply with the requirement of Subdivision (3) if he determines that the contemplated repair, alteration or extension involves technical complexities which cannot reasonably be addressed by himself, his authorized agent or the system installer.

**19-13-B103e. Procedures and conditions for the issuance of permits and approvals.**

- (5) While a sewage disposal system in an area of special concern is under construction, the local director of health may require that the construction be supervised by a professional engineer registered in the State of Connecticut, if in the opinion of the local director of health it is necessary to insure conformance to the plans approved or because of the difficulties likely to be encountered. The engineer shall make a record drawing of the sewage disposal system, as installed, which he shall submit to the local director of health prior to issuance of a discharge permit.
- (6) In such areas of special concern, the Commissioner of Health Services or the local director of health who has been approved by the Commissioner to review engineering plans in areas of special concern pursuant to Section 19-13-B103e (b) may require a study of the capacity of the surrounding natural soil to absorb or disperse the expected volume of sewage effluent without overflow, breakout, or detrimental effect on ground or surface waters.
- (f) Gray water systems. Disposal systems for sinks, tubs, showers, laundries and other gray water from residential buildings, where no water flush toilet fixtures are connected, shall be constructed with a septic tank and leaching system at least one-half the capacity specified for the required residential sewage disposal system.  
(Effective August 16, 1982)

**19-13-B103e. Procedures and conditions for the issuance of permits and approvals.**

No subsurface sewage disposal system shall be constructed, altered, repaired or extended without an approval to construct issued in accordance with this section. No discharge shall be initiated to a subsurface sewage disposal system without a discharge permit issued in accordance with this section. Such permits and approvals shall be issued and administered by the local director of health.

- (a) No permit or approval shall be issued:
  - (1) For any subsurface sewage system which is designed to discharge or overflow any sewage or treated effluent to any watercourse;
  - (2) For any new subsurface sewage disposal system until it is demonstrated to the satisfaction of the local director of health that there is a public water supply available or a satisfactory location for a water supply well complying with Sections 19-13-B51a through 19-13-B51m of the Public Health Code;
  - (3) For any new subsurface sewage disposal system where the soil conditions in the area of the leaching system are unsuitable for sewage disposal purposes at the time of the site investigation made pursuant to this section. Unsuitable conditions occur where the existing soil is impervious, or where there is less than four feet depth of suitable existing soil over ledge rock, two feet of which is naturally occurring soil, or where there is less than 18 inches depth of suitable existing soil over impervious soil, or where the round water level is less than 18 inches below the surface of the ground for a duration of one month or longer during the wettest season of the year;
  - (4) For any new subsurface sewage disposal system where the surrounding naturally occurring soil cannot adequately absorb or disperse the expected volume of sewage effluent without overflow, breakout or detrimental effect on ground or surface water.
- (b) Approval of agents by commissioner of health services.
  - (1) A local director of health shall authorize only persons approved by the Commissioner of Health Services to investigate, inspect and approve plans relating to subsurface sewage disposal systems.
  - (2) The Commissioner of Health Services shall approve agents of the local director of health whose qualifications to investigate, inspect and approve plans relating to subsurface sewage disposal systems have been established by attending

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training courses and passing examinations given by the Department of Health Services, as follows:

- (A) Agents who have attended training courses and passed examinations relative to Sections 19-13-B100, 19-13-B103 and 19-13-B104 of the Public Health Code and the Technical Stand shall be approved to investigate, inspect and approve all plans for subsurface sewage disposal systems except those prepared by a professional engineer registered in the State of Connecticut pursuant to Sections 19-13-B103d (c) or (e).
  - (B) Agents who have attended training courses and passed examinations relative to the engineering design of subsurface sewage disposal systems shall be approved to investigate, inspect and approve plans for such systems prepared by a professional engineer registered in the State of Connecticut pursuant to Section 19-13-B103d (e).
- (c) Application for permit or approval.
- (1) No investigation, inspection or approval of a subsurface sewage disposal system shall be made, or permit issued without an application by the owner in accordance with the following requirements.
  - (2) Applications for permits shall:
    - (A) Be on forms identical to Form #1 in the Technical Standards; or
    - (B) Be on forms prepared by the local director of health and deemed by the Commissioner of Health Services as equivalent to Form #1 in the Technical Standards; and
    - (C) Have attached a plot plan of the lot, which shall be a surveyor's plan if available or one prepared from information on the deed or land records.
  - (3) All the requested information shall be provided. If the information is not provided, it shall be indicated why it is not available or the application may be determined incomplete, and be rejected.
- (d) Site investigation.
- (1) The local director of health or a professional engineer registered in the State of Connecticut representing the applicant shall make an investigation of the site proposed for the subsurface sewage disposal system and report the findings and recommendations of the investigation on a form identical to Form #2 in the Technical Standards to include:
    - (A) A record of soil test location, measures and observations.
    - (B) Soil percolation results.
    - (C) Observations of ground water and ledge rock.
    - (D) A conclusion as to the suitability of the site for subsurface sewage disposal.
    - (E) Special requirements for design of the system, or further testing which shall be in accordance with the most recent edition of the Technical Standards.
  - (2) Prior to the site investigation, the applicant shall:
    - (A) Provide for the digging of a suitable number of percolation test holes, and deep observation pits in the area of the proposed leaching system and extending at least four feet below the bottom of the proposed leaching system, at the direction of the local director of health;
    - (B) Provide water for performing the percolation tests;
    - (C) If required by the local director of health, locate by field stakes or markers the sewage disposal system, house, well or property lines.
  - (3) The site investigation shall be made within ten working days of application unless otherwise required by subsection 19-13-B103d (e).
  - (4) The local director of health shall:
    - (A) Assure the accuracy of the findings of soil tests and deep observation pits; and

**19-13-B103e. Procedures and conditions for the issuance of permits and approvals.**

- (B) When the maximum ground water level is in doubt the local director of health shall investigate pursuant to Section 19-13-B103d (e).
- (5) The size of the leaching system shall be based on the results of soil percolation tests made in the area of the proposed leaching system or on other methods of determining the soil absorption capacity in accordance with the Technical Standards.
- (6) In areas of special concern, or for leaching systems with a design sewage flow of 2,000 gallons per day or greater, the local director of health may require from the applicant whatever further testing or data necessary to assure that the sewage disposal system will function properly. Further testing may be required prior to or subsequent to issuance of the approval to construct. Such tests may include permeability tests, sieve analysis or compaction tests of natural soil or fill materials, and the installation of ground water level monitoring wells, or pipes, as well as additional observation pits and soil percolation tests.
- (e) Submission of plan.
  - (1) Every plan for a subsurface sewage disposal system shall be submitted to the local director of health.
  - (2) Every plan for a subsurface sewage disposal system shall include all information necessary to assure compliance with the requirements of Section 19-13-B103d of these regulations, and contain as a minimum the following information: the location of the house sewer, the location and size of the septic tank, the location and description of the leaching system, property lines, building locations, watercourses, ground and surface water drains, nearby wells and water service lines.
  - (3) Where required by the local director of health under subsections 19-13-B103d (c) and (e) of these regulations, the plan shall be prepared by a professional engineer, registered in the State of Connecticut, and shall be prepared by a forwarded by the local director to the Commissioner of Health Services, together with his comments and recommendations.
  - (4) No plan shall be submitted directly by the applicant or engineer to the Commissioner of Health Services, unless requested by the local director of health.
- (f) Approval to construct.
  - (1) Upon determination that the subsurface sewage disposal system has been designed in compliance with the requirements of Section 19-13-B103d of these regulations, the local director of health shall issue an approval to construct. Approvals to construct shall be valid for a period of one year from the date of their issuance and shall terminate and expire upon a failure to start construction within that period. Approvals to construct may be renewed for an additional one year period by the local director of health upon a demonstration of reasonable cause for the failure to start construction within the one year period.
  - (2) Each subsurface sewage disposal system shall be constructed by a person licensed Pursuant to section 20-341 of the General Statutes. Such person shall notify the local director of health at least twenty-four hours prior to commencement of construction.
  - (3) The Commissioner of Health Services shall approve in accordance with Subsection 19-13-B103d (c) plans for a subsurface sewage disposal system to serve a building, the design sewage flow from which is two thousand gallons a day or greater prior to issuance of an approval to construct by the local director of health.
  - (4) Approval to construct a subsurface sewage disposal system in an area of special concern shall not be issued until twenty days following submission of the plans to the Commissioner of Health Services in accordance with subsection 19-13-103d (e), unless earlier approved by the Commissioner.
- (g) Inspection.

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**19-13-B103e. Procedures and conditions for the issuance of permits and approvals.**

- (1) The local director of health shall inspect all subsurface sewage disposal system for compliance with Subsection 19-13-B103d and the approved plans for construction prior to covering and at such other times as deemed necessary.
  - (2) After construction, and prior to covering, the subsurface sewage disposal system installer shall notify the local director of health the site is prepared for inspection. Such inspection shall take place as soon thereafter as feasible, but not later than two (2) working days after receipt of the request unless the owner agrees to an extension.
  - (3) A final inspection report shall be prepared by the local director of health on forms deemed by the Commissioner of Health Services as equivalent to Form #3 in the Technical Standards.
  - (4) A record plan of the sewage disposal system, as built, shall be required by the local director of health.
- (h) Permit to discharge.
- (1) Upon determination that the subsurface sewage disposal system has been installed in compliance with the requirements of Section 19-13-B103d of these regulations and the approved plans, the local director of health shall issue a permit to discharge. A copy of such permit shall be sent to the local building official. No permit to discharge shall be issued until all required forms are completed and an approved as-built plan or record drawing is received.
  - (2) Any permit to discharge issued by the Commissioner of Health Services or a local director of health for a household or small commercial subsurface sewage disposal system with a capacity of five thousand gallons per day or less shall be deemed equivalent to a permit issued under subsection 25-54i (b) of the Connecticut General Statutes. Such permits shall:
    - (A) specify the manner, nature and volume of discharge;
    - (B) require proper operation and maintenance of any pollution abatement facility required by such permit;
    - (C) be subject to such other requirements and restrictions as the commissioner deems necessary to comply fully with the purposes of this chapter and the Federal Water Pollution Control Act; and
    - (D) be issued on forms approved by the Commissioner of Health Services.
  - (3) The local director of health shall record the granting of an exception from any requirement of Section 19-13-B108d on the permit to discharge.
- (i) Enforcement.
- (1) A permit to discharge to a subsurface sewage disposal system shall not be construed to permit any sewage overflow, nuisance or similar condition or the maintenance thereof.
  - (2) If such a condition is found to exist, the Permit to discharge may be revoked, suspended, modified or otherwise limited and any such condition is subject to an order to abate the condition pursuant to Connecticut General Statutes Section 19-79.
- (j) Records. Copies of completed applications, investigation reports, review and inspection forms and as-built plans or record drawings of each sewage disposal system, certified as complying with this Section, shall be kept in the files of the town or health district for a minimum of ten years.
- (k) Rights of applicant.
- (1) All site investigations, inspections, review of plans and issuance of permits or approvals by the local director of health shall be made without unreasonable delay.
  - (2) When requested in writing by the applicant, the local director of health shall designate in writing within 20 working days the requirement(s) of Section 19-13-B103d or 19-13-B103e of these regulations which prevents such investigation, inspection, review, permit or approval.



**19-13-B103f. Non-discharging sewage disposal systems**

- (3) Any final decision of the local director of health made in regard to these sections shall be made in writing and sent to the applicant. Any decision adverse to the applicant or which limits the application shall set forth the facts and conclusions upon which the decision is based. Such written decision shall be deemed equivalent to an order, and may be appealed pursuant to Section 19-108 of the General Statutes.

(Effective August 16, 1982)

**19-13-B103f. Non-discharging sewage disposal systems**

- (a) All non-discharging sewage disposal systems shall be designed, installed and operated in accordance with the Technical Standards and the requirements of this section, unless an exception is granted by the Commissioner upon a determination that system shall provide for the proper and complete disposal and treatment of toilet wastes or gray water.
- (b) Composting toilets.
  - (1) The local director of health may approve the use of a large capacity composting toilet or a heat-assisted composting toilet for replacing an existing privy or failing subsurface sewage disposal system, or any single-family residential where application is made by the owner and occupant, and the lot on which the building will be located is tested by the local director of health and found suitable for a subsurface sewage disposal system meeting all the requirements of Section 19-13-B103d of these regulations.
  - (2) All wastes removed from composting toilets shall be disposed of by burial or other methods approved by the local director of health.
- (c) Incineration toilets. The local director of health may approve the use of incineration toilets for non-residential buildings or for existing single-family dwellings for the purpose of abating existing sewage problems or replacing the existing non-water carriage toilets.
- (d) Chemical flush toilets and chemical privies.
  - (1) The local director health may approve chemical flush toilets or chemical privies for nonresidential use where they are located outside of buildings used for human habitation. Chemical flush toilets or chemical privies located inside human habitations shall he approved by the Commissioner of Health Services and the local director of health.
  - (2) Liquid waste from chemical flush toilets or chemical privies shall be disposed of in a location and manner approved by the local director of health. Such liquid shall not be disposed of on a public water supply watershed or within hundred feet of any water supply well unless approved by the Commissioner of Health Services.
- (e) Dry Vault Privies.
  - (1) The local director of health may approve dry vault privies for nonresidential use where they are located outside of buildings used as human habitation.
  - (2) Wastes removed from dry privy vaults shall be disposed of by burial or other methods approved by the local director of health.

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