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NEWTOWN DISTRICT DEPARTMENT OF HEALTH

The Newtown Health District fields many calls regarding the disposal of wastewater from water treatment systems during the year. The calls are generated by a Home Inspector or a Realtor who discovers that the wastewater from the water treatment system/s have been connected to the homes subsurface sewage disposal system or by homeowners asking how to properly dispose of the wastewater from the water treatment system that they plan on installing.

The Connecticut Public Health Code Regulations and Technical Standards for Subsurface Disposal Systems, Section X states that wastewater that is not sewage **shall not be discharged** to a subsurface sewage disposal system. Discharges of wastewaters from water treatment systems to surface waters, sanitary sewer systems, subsurface sewage disposal systems or to the ground surface are prohibited unless otherwise authorized by the Department of Environmental Protection (DEP). Section X also states that the waste water disposal system must be via a separate/dedicated subsurface disposal system in accordance with DEP guidance or General Permit.

The General Permit for the Discharge of Point of Entry Water Treatment Wastewaters from the DEP defines *Point of Entry Water Treatment Wastewater or POEWTW* as backwash waters generated from the treatment of a private water supply by means of a point of entry treatment devices.

The dedicated disposal system consists of:

- A leaching system that has a storage volume that is at least one and one half [1.5] times the volume of the maximum daily discharge of the POEWTW
- There shall be a minimum of two [2] feet between the bottom of the leaching system and any underlying bedrock
- There shall be at least twelve [12] inches between the bottom of the leaching system and seasonal high ground water
- The leaching system must be a minimum of ten [10] feet from any component of the dwellings subsurface sewage disposal system, [Item P, Table No. 1]
- The leaching system must be a minimum of seventy-five [75] feet from the dwellings water supply well

Encl: Table No. 1
Section X
DEP General Permit

04/11/06

General Permit for the Discharge of Point of Entry Water Treatment Wastewaters

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General Permit for the Discharge of Point of Entry Water Treatment Wastewaters

Section 1. Authority

This general permit is issued under the authority of Section 22a-430b of the General Statutes.

Section 2. Definitions

As used in this general permit:

"Authorized activity" means any activity authorized by this general permit.

"Commissioner" means Commissioner as defined by Section 22a-2(b) of the General Statutes.

"Dedicated Disposal System," means a subsurface disposal system, other than a subsurface sewage disposal system, consisting of a solid, non-perforated conveyance pipe, followed by a leaching system as defined in Section 19-13-B103 of the Regulations of Connecticut State Agencies, and any groundwater control system on which the operation of the leaching system is dependent.

"Department" means the department of environmental protection.

"Individual permit" means a permit issued to a named permittee under Section 22a-430 of the General Statutes.

"Municipality" means a city, town or borough of the state.

"Permittee" means a person [or municipality] who or which has filed a registration.

"Person" means person as defined by Section 22a-2(c) of the General Statutes.

"Point of Entry Water Treatment Device or POEWT D" means a device for the treatment of a private water supply (which device is located at the water service entrance of a building) and, for the purposes of this general permit, is limited to devices primarily intended to be used for the treatment of hardness, iron, manganese or pH.

"Point of Entry Water Treatment Wastewater or POEWTW" means backwash waters generated from the treatment of a private water supply by means of point of entry water treatment devices.

"POTW" means a publicly owned treatment works.

"Private Water Supply" means a private water supply as defined by section 19-13-B101 (a)(9) of the Public Health Code.

"Site" means geographically contiguous land or water on which an authorized activity takes place or on which an activity for which authorization is sought under this general permit is proposed to take place. Non-contiguous land or water owned by the same person and connected by a right-of-way, which such person controls, and to which the public does not have access shall be deemed the same site.

"Vendor" means a person or municipality who supplies a point of entry water treatment device for use by a person or municipality covered by this general permit.

"Watercourse" means watercourse as defined in Section 22a-38 of the General Statutes.

Section 3. Authorization Under This General Permit

(a) Eligible Activities

Provided the requirements of subsection (b) of this section are satisfied, this general permit authorizes the:

Discharge to the ground by means of a dedicated disposal system, or to a POTW, of POEWTW from the treatment of a private water supply.

Any discharge of water, substance or material into the waters of the state other than the one specified in this section is not authorized by this general permit, and any person who or municipality which initiates, creates, originates or maintains such a discharge must first apply for and obtain authorization under Section 22a-430 of the General Statutes.

(b) Requirements for Authorization

This general permit authorizes the activities listed in subsection (a) of this section provided:

(1) Coastal Area Management

Such activity is consistent with all-applicable goals and policies in Section 22a-92 of the General Statutes, and will not cause adverse impacts to coastal resources as defined in Section 22a-93 of the General Statutes.

(2) Endangered and Threatened Species

Such activity does not threaten the continued existence of any species listed pursuant to Section 26-306 of the General Statutes as endangered or threatened and will not result in the destruction or adverse modification of habitat designated as essential to such species.

(3) Such activity, which discharges to a POTW, shall comply with any relevant municipal sewer use ordinance.

(4) Such activity conforms to the requirements of Section 4 of this General Permit.

(5) No discharge of wastewater shall contain substances in concentrations greater than any MCL, other than for naturally occurring substances present

in the source water, as source water is defined in section 19-13B102(a) of the Public Health Code.

(c) *Geographic Area*

This general permit applies throughout the State of Connecticut.

(d) *Effective Date and Expiration Date of this General Permit*

This general permit is effective on the date it is issued by the Commissioner and expires five (5) years from such date of issuance.

(e) *Effective Date of Authorization*

An activity is authorized by this general permit on the date the general permit becomes effective or on the date the activity commences, whichever is later.

(f) *Revocation of an Individual Permit*

If an activity meets the requirements of authorization of this general permit and such activity is presently authorized by an individual permit, the existing individual permit may be revoked by the Commissioner upon a written request by the permittee. If the Commissioner revokes such individual permit in writing, such revocation shall take effect on the effective date of authorization of such activity by this general permit.

(g) *Issuance of an Individual Permit*

If the Commissioner issues an individual permit authorizing an activity authorized by this general permit, this general permit shall cease to authorize that activity beginning on the date such individual permit is issued.

Section 4. Conditions of this General Permit

The permittee shall at all times continue to meet the requirements for authorization set forth in Section 3 of this general permit. In addition, a permittee shall assure that activities authorized by this general permit are conducted in accordance with the following conditions:

(a) *Operating Conditions*

(1) POEWTW shall not be discharged to any open floor drain, floor trench, sump or drainage system which is designed to receive chemical spillage or other wastewaters not authorized by this general permit.

(2) No discharge of POEWTW to any surface water is authorized by this general permit.

(3) Discharges of POEWTW to the ground shall be by means of a dedicated disposal system which meets the following requirements:

(A) The dedicated disposal system's leaching system shall have a storage volume that is at least one and a half (1.5) times the volume of the maximum daily discharge of POEWTW;

- (B) There shall be a minimum of 2 feet between the bottom of any dedicated disposal system's leaching system used to discharge POEWTW and any underlying bedrock surface, and at least 12" of separation between the bottom of any such system and the seasonal high water table at the treatment system site;
 - (C) The discharge of POEWTW to the ground shall not create or maintain a condition which will interfere with the operation and effectiveness of a subsurface sewage disposal system, permitted in accordance with Section 19a-36 or 22a-430 of the Connecticut general Statutes and the regulations adopted thereunder;
 - (D) No portion of a dedicated disposal system for the treatment and disposal of POEWTW shall be located within 10 feet of any component of a subsurface sewage disposal system's leaching system which is permitted in accordance with Section 19a-36 or 22a-430 of the Connecticut General Statutes and the regulations adopted thereunder;
 - (E) Minimum separating distances between any component of a dedicated disposal system and a potable water supply well shall be as prescribed in section 19-13-B51d.
 - (F) If a local Director of Health determines that a dedicated disposal system in existence prior to the date of this general permit is not a threat to either a potable water supply, a subsurface sewage disposal system, or an environmental point of concern, it may approve a variance for conditions 4(a)(3)(A)(B),(D), or (E).
- (4) For discharges to a POTW:

The discharge shall conform to any relevant municipal sewer use ordinance.

(b) Reporting and Record Keeping Requirements

- (1) Within thirty (30) days following the installation of a dedicated disposal system, the permittee shall submit an installation report to the local health department. Such report shall include the following details:
 - (A) The name of the installer of the dedicated disposal system;
 - (B) The location of each such discharge;
 - (C) The date of installation;
 - (D) A description of the POEWTD including a description of the chemicals utilized in the treatment system and discharge volume;
 - (E) Copies of any authorizations granted by either a Municipal Water Pollution Control Authority (for a discharge to a POTW) or municipal or district director of health.

- (F) Certification by the installer that the dedicated disposal system conforms to the conditions in Section 4(a)(3) of this general permit.

(c) Regulations of Connecticut State Agencies Incorporated into this General Permit

The permittee shall comply with all applicable law, including without limitation the following Regulations of Connecticut State Agencies:

- (1) Section 22a-430-3:

Subsection (b) General - subparagraph (1)(D) and subdivisions (2) Signatory Requirements, (3) Duty to Provide Information, (4) Permit Fees, (5) Confidentiality, and Subsection (c) Inspection and Entry

- (2) Section 22a-430-4:

Subsection (t) – Discharges to POTWs - Prohibitions

(d) Duty to Correct and Report Violations

Upon learning of a violation of a condition of this general permit, a permittee shall immediately take all reasonable action to determine the cause of such violation, correct such violation and mitigate its results, prevent further such violation, and report in writing such violation and such corrective action to the Commissioner within five (5) days of the permittee's learning of such violation. Such report shall be certified in accordance with subsection 4(i) of this general permit.

(e) Duty to Provide Information

If the Commissioner requests any information pertinent to the authorized activity or to compliance with this general permit or with the permittee's approval of registration, the permittee shall provide such information in writing within thirty (30) days of such request. Such information shall be certified in accordance with subsection 4(i) of this general permit.

(f) Certification of Documents

Any document, including but not limited to any notice, which is submitted to the Commissioner under this general permit shall be signed by, as applicable, the registrant or the permittee in accordance with Section 22a-430-3(b)(2) of the Regulations of Connecticut State Agencies, and by the individual or individuals responsible for actually preparing such document, each of whom shall certify in writing as follows:

“I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in the submitted information may be punishable as a criminal offense, in accordance

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with Section 22a-6 of the General Statutes, pursuant to Section 53a-157b of the General Statutes, and in accordance with any other applicable statute.”

(g) *Date of Filing*

For purposes of this general permit, the date of filing with the Commissioner of any document is the date such document is received by the Commissioner. The word "day" as used in this general permit means the calendar day; if any date specified in the general permit falls on a Saturday, Sunday, or legal holiday; such deadline shall be the next business day thereafter.

(h) *False Statements*

Any false statement in any information submitted pursuant to this general permit may be punishable as a criminal offense, in accordance with Section 22a-6, under Section 53a-157b of the General Statutes.

(i) *Correction of Inaccuracies*

Within fifteen days after the date a permittee becomes aware of a change in any information in any material submitted pursuant to this general permit, or becomes aware that any such information is inaccurate or misleading or that any relevant information has been omitted, such permittee shall correct the inaccurate or misleading information or supply the omitted information in writing to the Commissioner. Such information shall be certified in accordance with subsection 4(i) of this general permit.

(j) *Other Applicable Law*

Nothing in this general permit shall relieve the permittee of the obligation to comply with any other applicable federal, state and local law, including but not limited to the obligation to obtain any other authorizations required by such law.

(k) *Other Rights*

This general permit is subject to and does not derogate any present or future rights or powers of the State of Connecticut and conveys no rights in real or personal property nor any exclusive privileges, and is subject to all public and private rights and to any federal, state, and local laws pertinent to the property or activity affected by such general permit. In conducting any activity authorized hereunder, the permittee may not cause pollution, impairment, or destruction of the air, water, or other natural resources of this state. The issuance of this general permit shall not create any presumption that this general permit should or will be renewed.

Section 5. Commissioner's Powers

(a) *Abatement of Violations*

The Commissioner may take any action provided by law to abate a violation of this general permit, including the commencement of proceedings to collect penalties for such violation. The Commissioner may, by summary proceedings or otherwise and for any reason provided by law, including violation of this general permit, revoke a permittee's authorization hereunder in accordance with Sections

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22a-3a-2 through 22a-3a-6, inclusive, of the Regulations of Connecticut State Agencies. Nothing herein shall be construed to affect any remedy available to the Commissioner by law.

(b) General Permit Revocation, Suspension, or Modification

The Commissioner may, for any reason provided by law, by summary proceedings or otherwise, revoke or suspend this general permit or modify it to establish any appropriate conditions, schedules of compliance, or other provisions which may be necessary to protect human health or the environment.

(c) Filing of an Individual Application

If the Commissioner notifies a permittee in writing that such permittee must obtain an individual permit if he wishes to continue lawfully conducting the activity authorized by this general permit, the permittee may continue conducting such activity only if he files an application for an individual permit within thirty (30) days of receiving the Commissioner's notice. While such application is pending before the Commissioner, the permittee shall comply with the terms and conditions of this general permit and the subject approval of registration. Nothing herein shall affect the Commissioner's power to revoke a permittee's authorization under this general permit at any time.

Issued: [DATE]

Gina McCarthy
Commissioner

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P:Working/AMAUGER/GP Mods/Discharge PEWTW Rev0206

II. LOCATION OF SUBSURFACE SEWAGE DISPOSAL SYSTEMS

A. Minimum separating distance

The minimum separating distances specified in Table No. 1 are required and shall be maintained between any part of a subsurface sewage disposal system, except certain piping, and the cited items. Tables No. 2, 2-C and 2-D list specific applications whereby specified piping shall have reduced separating distances.

Table No. 1

Item	Separating Distance (Feet)	Special Provisions
A. Water supply well (potable, open loop geothermal, irrigation), spring or domestic water suction pipe. Required withdrawal rate: < 10 gal. per minute 10 to 50 gal. per minute > 50 gal. per minute	75 150 200	1. Separating distance to the leaching system shall be doubled when the percolation rate is faster than one minute/inch and the leaching system is less than 8 feet above ledge rock. 2. Separating distance shall be increased as necessary to protect the sanitary quality of a public water supply well.
B. Human habitation on adjacent property	15	Building without drains. See items G & H for distance to building with drains.
C. Building served	15	Building without drains. See items G & H for distance to building with drains. Separating distance to a septic tank/septic tank/pump chamber/grease interceptor tank shall be reduced to 10 feet for buildings without drains.
D. Open watercourse	50	When not located on a public water supply watershed, distance shall be reduced as necessary to not less than 25 feet on lots in existence prior to the effective date of this regulation (8/16/82) and thereafter recorded as required by statute.
E. Public water supply reservoir	100	
F. Surface or groundwater drain constructed of solid pipe	25	Tight pipe with rubber gasketed joints or accepted equal (see Table No. 2-C) are exempted from this requirement as long as the pipe excavation is not backfilled with free draining material, however no tight pipe shall be less than 5 feet from system. Leakage tests may be required to verify water tightness.
G. Groundwater drains (curtain, footing, foundation, etc.), storm water infiltration or retention/detention system located up gradient, or on the side of system.	25	
H. Groundwater drains (curtain, footing, foundation, etc.), storm water infiltration or retention/detention system located down gradient.	50	1. No such drain shall be constructed down gradient of the leaching system for the purpose of collecting sewage effluent regardless of the distance. 2. Distance to septic tank/pump chamber/grease interceptor tank shall be reduced to 25 feet if tank is verified to be watertight (Concrete tanks: See Section V A 6).
I. Top of embankment (Down gradient and on sides)	10	Cuts within 50 feet down gradient of leaching systems shall not be allowed if bleed-out conditions are possible.
J. Property line	10	1. Separating distance between the primary leaching system and a down gradient property line shall be increased to 25 feet whenever MLSS is applicable. 2. Separating distance to the leaching system shall be increased to 15 feet whenever the top of the leaching system is above natural grade unless grading rights from the affected property owner are secured or retaining walls are utilized (See Section VIII A for retaining wall provisions).
K. Potable water and/or irrigation lines which flow under pressure	10	Excavations between 10 – 25 feet from system shall not be backfilled with free draining material.
L. Below ground swimming pool	25	See item H for down gradient pools with drains.
M. Above ground swimming pool	10	Includes hot tubs.
N. Accessory structure	10	Structure shall have no footing drains. See items G & H if drains provided. Structures without full wall, frost protected footings shall be reduced to 5 feet.
O. Utility service trench (Underground electric, gas, phone services, etc.)	5	Excavations between 5 – 25 feet from system shall not be backfilled with free draining material.
P. Water treatment wastewater disposal system	10	See Section X.
Q. Closed loop geothermal system Borehole (Vertical) Horizontal loop/geothermal piping	75 10	Separating distance from borehole to leaching system and watertight tanks shall be reduced to 50 feet and 25 feet, respectively, as long as a CT licensed well driller installs borehole with a permit certifying construction standards per Department of Public Health EHS Circular Letter #2007-12 dated April 27, 2007. Excavations between 10 – 25 feet from system shall not be backfilled with free draining material.



IX. GROUNDWATER, ROOF, CELLAR, PARKING LOT AND YARD DRAINAGE

No groundwater drainage or drainage from roofs, cellars, roads, parking lots or yards shall discharge into or within twenty-five feet of any portion of a subsurface sewage disposal system. Separate facilities shall be provided for such drainage. Additional separation is required for such drainage structures when they are located down gradient of a subsurface sewage disposal system. Storm water swales shall be constructed to lead water away from the subsurface sewage disposal system. The minimum separation distance between drains and storm water infiltration systems from subsurface sewage disposal systems is designated in Table No. 1.

Groundwater control drains or curtain drains, if used, shall be located on the uphill side of leaching systems and on the sides if necessary, and shall be separated from these systems as specified in Table No. 1. The depth of these drains shall be such as to lower the groundwater at least two feet below the bottom of the entire leaching system. Each drain shall be equipped with a collection pipe located 6 to 12 inches above the bottom of the trench carrying collected groundwater around and discharging below the leaching system (see Figure No. 14). This collection pipe shall have a minimum diameter of four inches and shall consist of open-joint tile, porous or perforated pipe. Perforated collection pipes are typically installed with holes on the bottom of the pipe. The collection pipe shall be surrounded by clean stone or gravel to a depth necessary to control groundwater, or otherwise designed by a professional engineer.

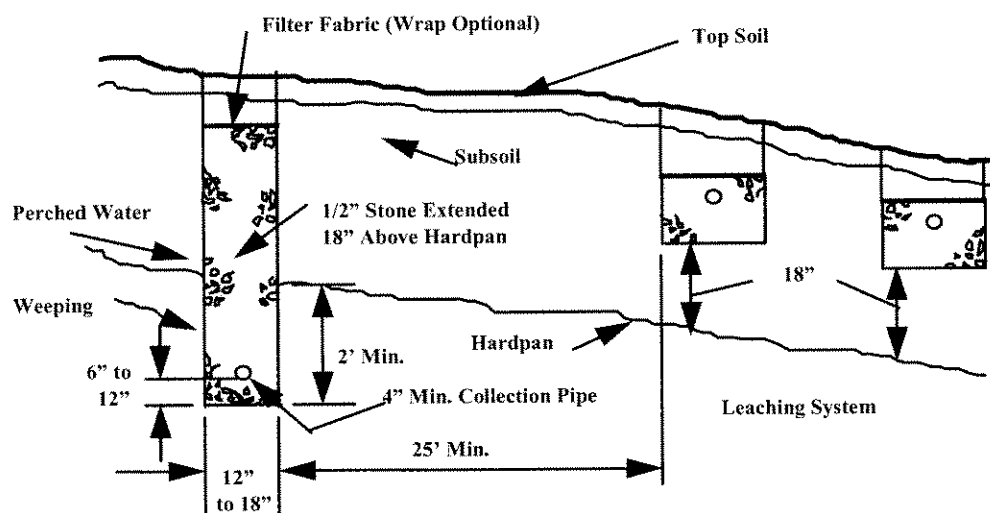


Figure No. 14 - Typical Curtain Drain Construction

X. OTHER WASTEWATER

Oils, greases, industrial/commercial wastes, toxic chemicals and wastewater that is not sewage, as defined in Public Health Code Section 19-13-B103b (a), shall not be discharged to a subsurface sewage disposal system.

Discharges of wastewaters from water treatment systems (e.g., water softeners, iron or manganese removal filters) to surface waters, sanitary sewer systems, subsurface sewage disposal systems or to the ground surface are prohibited unless otherwise authorized by the Department of Environmental Protection (DEP) or the Commissioner of Public Health. On-site disposal of water treatment system wastewater via a separate/dedicated subsurface disposal system shall be in accordance with DEP guidance or General Permit. Dedicated water treatment wastewater disposal systems shall meet the minimum separation distances specified in Table No. 1.

PUBLIC HEALTH CODE REGULATIONS

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.

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 groundwater 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 groundwater 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 groundwater level is at least eighteen inches below the bottom of the percolation test hole.
- (i) **Maximum groundwater level** means the level to which groundwater 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 Public Health in the most recent revision of the publication entitled "Technical Standards for Subsurface Sewage Disposal Systems" available from the State Department of Public Health.