



**Bureau of Materials Management & Compliance Assurance
Water Permitting and Enforcement Division**

Fact Sheet for the *General Permit for the Discharge of Low Flow Water Treatment Wastewater*

Permit Overview—The General Permit for the Discharge of Low Flow Water Treatment Wastewater (general permit) addresses the need for specific treatment requirements for a common residential and commercial discharge that is prohibited from subsurface sewage disposal systems (septic tanks). The Connecticut Public Health Code prohibits the discharge of backwash from water softener or iron and manganese removal systems to septic systems due to the potential for septic system failure. This permit requires a separate groundwater disposal system for such wastewaters and provides design criteria for such systems.

As defined in the general permit, “*Low Flow Water Treatment Wastewater*” or “*LFWTW*” means a maximum of 500 gallons per day of wastewater generated by a point of entry water treatment device for the treatment of well water used to supply potable water to a residential building or institution or a non-residential building and where the treated water is not purchased by another party but does not include discharges from treatment system components for the removal of radionuclides.

The most common example of a “low flow water treatment wastewater” is the backwash generated when the tank of a water softener found at a residential or small commercial site using a well as a water source is regenerated by passing a brine solution over the softener resin. This regeneration replaces the “hard” ion (e.g. calcium, magnesium, iron, and manganese to name a few) that has attached itself to the resin with sodium or potassium ions, depending on what type of salt is used in the treatment system. The discharge consists of hard water ions, chlorides, and remaining levels of cations (commonly sodium or potassium) that did not adsorb to the softener resin. Reverse osmosis brine is another type of LFWTW covered by this general permit.

The Connecticut Department of Public Health’s Technical Standards for Subsurface Sewage Disposal Systems pursuant to section 19-13-B103d (b) of the Connecticut Public Health Code prohibits the “discharge of wastewater from water treatment systems (i.e., water softeners, iron or manganese removal filters) to surface water, sanitary sewer system, subsurface sewage disposal system or to the ground surface ... unless otherwise authorized by the Department of (Energy and) Environmental Protection”. This general permit will authorize the discharge of LFWTW to sanitary sewer or a subsurface disposal system (separate from a subsurface *sewage* disposal system) that is constructed in accordance with the specifications in the general permit.

Authority— The general permit is issued in accordance with section 1421 of the Federal Safe Drinking Water Act 42 USC 300h et. seq. and section 22a-430b of the General Statutes.

Registration and Fees—No registration or fees are required for a low flow water treatment wastewater discharge to be covered by this general permit. Coverage is contingent upon compliance with the terms and conditions of the general permit.

Groundwater Discharge System—A subsurface dispersal structure must be constructed to allow the wastewater to percolate into the ground. Water treatment wastewater dispersal structures include but are not limited to stone filled excavations, leaching trenches, plastic leaching chambers, leaching galleries, and leaching pits. Requirements for the system in Section 4(a)(5) of the general permit include:

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- a minimum storage volume in the water treatment wastewater dispersal structure of 1.5 times the volume of the maximum daily discharge of LFWTW
- minimum vertical separation distances between the bottom of the water treatment wastewater dispersal structure and: 1) underlying bedrock and 2) the seasonal high groundwater level. Permittees and/or their agents can obtain this data from health district records for a site's subsurface sewage disposal system
- minimum horizontal separation distances between the water treatment wastewater dispersal structure and other site items

Other Conditions—Other conditions required by this permit include:

- No discharge of wastewater shall contain substances in concentrations greater than any maximum contaminant levels (MCL) of the Regulations of Connecticut State Agencies §19-13-B102 (Public Health Code) for consumers of private or public water supply systems except for naturally occurring substances originating in the source water (excluding arsenic) and chlorides.
- LFWTW cannot 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.
- LFWTW cannot be discharged to any watercourses.
- Activated carbon backwash and regeneration wastewaters for filters which treat for volatile organic compounds shall only discharge to a POTW(publicly owned treatment works or sewage treatment plant).

Monitoring—No flow or parameter monitoring of the discharge is required under this general permit.

Recordkeeping and Reporting Requirements—Information that must be recorded at the time of installation of the water treatment wastewater disposal system and reported to the local health department and possibly the Drinking Water Section of the Department of Public Health (if the system is part of a public water system) includes:

- (1) the name of the installer of the water treatment wastewater disposal system
- (2) site location of the discharge including street address and town
- (3) an as-built drawing showing the description and location of the water treatment wastewater disposal system which, at a minimum, must include:
 - a. written description of the water treatment wastewater dispersal structure installed including dimensions and storage volume
 - b. separating distances to water supply wells, public water supply reservoirs, subsurface sewage disposal system(s), watercourses, property lines, and buildings.
 - c. horizontal distances from at least two fixed objects to each system component;
 - d. vertical distances from original grade to underlying bedrock surface and seasonal high ground water level;
 - e. vertical distance from original grade to bottom of water treatment wastewater dispersal structure.
- (4) the date of installation;
- (5) a description of the water treatment system including the maximum daily discharge volume and any chemicals utilized. Additionally, written notification shall be made to the local health department if any changes are made to the treatment system that results in the use of a different treatment technology and/or different treatment chemicals;
- (6) copies of any authorizations granted by a Municipal Water Pollution Control Authority for a discharge to a POTW.
- (7) certification by the installer that the water treatment wastewater disposal system conforms to the conditions in Section 4(a) of the general permit.

This fact sheet is designed to answer general questions and provide basic information. You should refer to the General Permit for the Discharge of Low Flow Water Treatment Wastewater for specific regulatory language.