

R18-9-E312. 4.12 General Permit: Textile Filter, Less Than 3000 Gallons Per Day Design Flow

- A. A 4.12 General Permit allows a textile filter receiving wastewater treated to a level equal to or better than that provided by a 4.02 General Permit septic tank.
1. Definition. For purposes of this Section, a “textile filter” means a disposal technology characterized by:
 - a. The flow of wastewater into a packed bed filter in a containment structure or structures. The packed bed filter uses a textile filter medium with high porosity and surface area;
 - b. The textile filter medium provides further treatment by removing suspended material from the wastewater by physical straining, and reducing nutrients by microbial action.
 2. An applicant may use a textile filter in conjunction with a two-compartment septic tank or a two-tank system if the second compartment or tank is used as a recirculation and blending tank. A portion of the wastewater flow from the textile filter shall be diverted back into the second tank for further treatment.
 3. An applicant may use a textile filter if nitrogen reduction is desired or as an alternative to a sand filter if delivering sand with the required properties is difficult or expensive.
- B. Performance. An applicant shall ensure that a textile filter is designed on the basis that it produces treated wastewater that meets the following criteria:
1. TSS of 15 milligrams per liter, 30-day arithmetic mean;
 2. BOD5 of 15 milligrams per liter, 30-day arithmetic mean;
 3. Total nitrogen (as nitrogen) of 30 milligrams per liter, five-month arithmetic mean, or 15 milligrams, five-month arithmetic mean per liter if documented under subsection (C)(4); and
 4. Total coliform level of 100,000 (Log10 5) colony forming units per 100 milliliters, 95th percentile.
- C. Notice of Intent to Discharge. In addition to the Notice of Intent to Discharge requirements specified in R18-9-A301(B) and R18-9-A309(B), an applicant shall submit:
1. The name and address of the filter manufacturer;
 2. The filter model number;
 3. A copy of the manufacturer’s filter warranty;
 4. If the system is for nitrogen reduction to 15 milligrams per liter, five-month arithmetic mean, specifications on the nitrogen reduction performance of the filter system and corroborating third-party test data;
 5. The manufacturer’s operation and maintenance recommendations to achieve a 20-year life; and
 6. If a pump or aerator is required for proper operation, the pump or aerator model number and a copy of the manufacturer’s warranty.
- D. Design requirements. An applicant shall ensure that:
1. The textile medium has a porosity of greater than 80%;
 2. The wastewater is delivered to the textile filter by gravity flow or a pump;
 3. If a pump tank is used to dose the textile module or modules, it meets the following criteria:
 - a. Liquid volume equals or exceeds the calculated dose plus the required storage capacity and a reserve volume above the high water level alarm to contain the design flow volume, and
 - b. A control panel with a programmable timer is used to dose approximately 1/12 of the maximum daily design flow (plus the drain-back if applicable) every two hours.
- E. Installation requirements. An applicant shall:
1. Before placing the filter modules, slope the bottom of the excavation for the modules toward the discharge point to minimize ponding;
 2. Ensure that the bottom of all excavations for the filter modules, pump, aerator, or other components is level and free of debris, rocks, and sharp objects. If the excavation is uneven or rocky, the applicant shall use a bed of sand or pea gravel to create an even, smooth surface;
 3. Provide the modules and other components with anti-buoyancy devices to ensure they remain in place in the event of high water table conditions; and
 4. Provide a mechanism for draining the filter module inlet line.
- F. Operation and maintenance requirements. In addition to the applicable requirements in R18-9-A313, the permittee shall not flush corrosives or other materials known to damage the textile material into any drain that transmits wastewater to the on-site wastewater treatment facility.

Historical Note

New Section adopted by final rulemaking at 7 A.A.R. 235, effective January 1, 2001 (Supp. 00-4).