

R18-9-E315.4.15 General Permit: Aerobic System with Subsurface Disposal, Less Than 3000 Gallons Per Day Design Flow

- A. A 4.15 General Permit allows for an aerobic system that consists of an aerator for treatment and a subsurface absorption field for disposal of treated wastewater.
1. Definition. For purposes of this Section, an “aerobic system with subsurface disposal” means the mechanical introduction of oxygen to wastewater, followed by clarification and pressure or gravity distribution to a subsurface soil absorption field.
 2. An applicant may use an aerobic system with subsurface disposal if:
 - a. Enhanced biochemical processing is needed to treat wastewater with high organic content,
 - b. A soil condition is not adequate to allow installation of a standard septic tank and disposal field as prescribed in R18-9-E302,
 - c. A highly treated and disinfected wastewater is needed, or
 - d. Nitrogen removal is needed and the design meets other requirements of this general permit.
- B. Performance. An applicant shall ensure that an aerobic system with subsurface disposal is designed on the basis that the treated wastewater released to the native soil meets the following criteria:
1. TSS of 30 milligrams per liter, 30-day arithmetic mean;
 2. BOD5 of 30 milligrams per liter, 30-day arithmetic mean;
 3. Total nitrogen (as nitrogen) of 53 milligrams per liter, five-month arithmetic mean, or 15 milligrams, five-month arithmetic mean per liter if documented under subsection (C); and
 4. Total coliform level of 300,000 (Log10 5.5) 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. Evidence of performance specified in subsection (B);
 2. The name and address of the treatment unit manufacturer;
 3. The model number;
 4. A copy of the manufacturer’s warrantee and operation and maintenance recommendations to achieve performance for a 20-year life; and
 5. If nitrogen reduction to a level from 15 to less than 53 milligrams per liter is proposed, specifications on system nitrogen reduction performance and corroborating third party test data.
- D. Design requirements. An applicant shall ensure that the wastewater is delivered to the aerobic treatment unit by gravity flow either directly or by a lift pump. The Director shall require an interceptor or other pretreatment device if needed to meet the performance criteria specified in subsection (B) or the manufacturer recommends a device if a garbage disposal appliance is used.
- E. Installation requirements. An applicant shall ensure that:
1. The installation of the aerobic treatment components conforms to manufacturer’s specifications that are consistent with this Chapter and the design documents specified in the Provisional Verification of General Permit Conformance; and
 2. Excavation and foundation work, and backfill placement is performed to prevent differential settling and adverse drainage conditions.
- F. Operation and maintenance requirements. The permittee shall follow the applicable requirements in R18-9-A313.

Historical Note

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