



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

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### GENERAL USE CERTIFICATION

Pursuant to Title 5, 310 CMR 15.00

Name and Address of Applicant:

Presby Environmental, Inc.  
143 Airport Road  
Whitefield, NH 03598

Trade name of technology and models: **Advanced Enviro-Septic®** (hereinafter called the “System”). The Advanced Enviro-Septic Design & Installation Manual, System Installation Form and Inspection Checklist are part of this Certification.

Transmittal Number: X255471b  
Date of Issuance: July 25, 2013, revised August 12, 2013

### Authority for Issuance

Pursuant to Title 5 of the State Environmental Code, 310 CMR 15.000, the Department of Environmental, Protection hereby issues this Certification for General Use to: Presby Environmental, Inc., 143 Airport Road, Whitefield, NH 03598 (hereinafter “the Company”), certifying the System described herein for General Use in the Commonwealth of Massachusetts. The sale, design, installation, and use of the System are conditioned on compliance by the Company, the Designer, the Installer and the System Owner with the terms and conditions set forth below. Any noncompliance with the terms or conditions of this Certification constitutes a violation of 310 CMR 15.000.

David Ferris, Director  
Wastewater Management Program  
Bureau of Resource Protection

August 12, 2013  
Date

## **Technology Description**

The Advanced Enviro-Septic System (the ‘System’ or ‘AES’) is an alternative subsurface Soil Absorption System (SAS) that replaces a conventional SAS designed in accordance with 310 CMR 15.000. The System consists of an 11 5/8-inch diameter corrugated, high-density plastic pipe with a 9.5-inch interior diameter and a standard length per unit of 10 feet. The pipe is perforated with eight holes equally distributed around its inner circumference at each corrugation. Each hole has a plastic skimmer extending inwards. The exterior of the pipe has ridges on the peak of each corrugation and is wrapped with three geotextile fabric materials. The inner layer is a Bio-Accelerator fabric against the bottom exterior of the plastic pipe, aligned between the 4 o’clock and 7 o’clock positions. The Bio-Accelerator fabric is covered by a thick coarse, randomly oriented polypropylene fiber mat which is wrapped completely around the pipe. An additional outer layer of a thinner non-woven geotextile polypropylene fabric is also wrapped around the pipe. Connectors designed to connect pipe units together is available and required.

The System also includes sand surrounding the pipe units, specified as concrete sand meeting the ASTM C-33 specification, also called System Sand. The System Sand must be placed with a minimum thickness of six inches below, six inches above and six inches to the sides of the AES pipe units.

## **Conditions of Approval**

The term “System” refers to the Alternative Soil Absorption System in combination with the other components of an on-site treatment and disposal system that may be required to serve a facility in accordance with 310 CMR 15.000.

The term “Approval” refers to the technology-specific Special Conditions, the Standard Conditions for Alternative Soil Absorption Systems (available at <http://www.mass.gov/eea/docs/dep/water/wastewater/o-thru-v/stdconda.pdf>), the General Conditions of 310 CMR 15.287, and any Attachments.

For Alternative Soil Absorption Systems that have been issued General Use Certification for the installation of Systems to serve facilities where the site meets the requirements for new construction, the Department authorizes reductions in the effective leaching area (310 CMR 15.242), subject to the Standard Conditions that apply to all Alternative Soil Absorption Systems with General Use Certification and subject to the Special Conditions below applicable to this Technology.

## **Special Conditions**

1. The System is approved as an Alternative Soil Absorption System Patented Sand Filter providing Treatment with Disposal and is categorized as such by the Title 5 I/A Program. In addition to the Special Conditions contained in this Approval, the System shall comply with all Standard Conditions for Alternative Soil Absorption Systems, except where stated otherwise in these Special Conditions.

2. The System is approved for facilities where a conventional system with a reserve area exists or can be built on-site in full compliance with the new construction requirements of 310 CMR 15.000 and has been approved by the local approving authority.
3. This Certification shall not be used for the installation of a System to upgrade or replace an existing failed or nonconforming system, unless the facility meets the siting requirements for new construction, including a reserve area.
4. The separation distance to the estimated seasonal high groundwater elevation shall be measured from the bottom of the System sand below the Advanced Enviro-Septic System.
5. The System shall only be installed in bed or field configuration, as described in 310 CMR 15.252. The System shall not be installed in trench configuration and no sidewall area shall be considered in the total effective leaching area provided. The effective leaching area shall be the bottom area only (length times width) of the sand bed.
6. Systems shall be installed with differential venting for aeration and inspection access at end of each run of pipe, section or serial bed and whenever the System is installed under impervious surfaces.
7. Serial distribution laterals shall be limited to no more than 500 gpd with each lateral a maximum of 100 feet, and must be laid level. Multi-level systems shall not be allowed.
8. System component material specifications for the pipe, plastic components, fabric and sand shall comply with the specifications identified in the initial Enviro-Septic I/A technology approval. The specification and use of the additional Bio-Accelerator layer must maintain the same material specification as was installed with the completed testing conducted by NSF, BNQ and Massachusetts On-Site System Test Center. Prior approval from the Department for any change from these specifications shall be requested in writing.
9. Any changes to the approved plans must receive Local Approving Authority (LAA) approval prior to any changes. Before a Certificate of Compliance can be issued by the LAA the System Designer must include any changes to the approved plan into the as-built plans.