



PRESBY ENVIRONMENTAL, INC.

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TECHNICAL BULLETIN

Introduction of Advanced Enviro-Septic™ in Maine

Advanced Enviro-Septic™ now available in Maine: Presby Environmental, Inc. continually seeks to offer the latest and most effective technological advances to their customers. We are proud to introduce the availability of the Advanced Enviro-Septic™ Treatment System (“AES”) in Maine. Advanced Enviro-Septic™ is the next generation of our effective and reliable Enviro-Septic® technology; it has received Class I Certification under NSF International/ANSI’s Standard 40 for Wastewater Treatment Devices. The AES product is also approved for non-NSF Certified installations in Maine.

Advanced Enviro-Septic™ CTD is the **first and only** NSF-40 Class I certified system that is passive, provides combined treatment and dispersal, and never requires replacement media. The simplicity of the AES System makes it much more cost-effective to purchase and maintain than the complicated and expensive mechanical devices that usually obtain NSF-40 Certification. AES is also certified as a Secondary and Advanced Secondary Treatment System by the Bureau de Normalisation du Quebec (BNQ).

Product Enhancement: AES provides superior treatment and dispersal processes as a result of the addition of Bio-Accelerator™. This proprietary enhancement filters additional solids from effluent, enhances and accelerates treatment, facilitates quick start-up after periods of non-use, provides additional surface area for bacterial growth, promotes even distribution, and further protects outer layers and the receiving surfaces so they remain permeable. Accelerated bacterial treatment processes make AES an excellent choice for properties that receive intermittent or seasonal use. By protecting the receiving surfaces better, treatment, function and longevity are all improved.

Design and Installation of AES Systems in Maine: The Design and Installation criteria for AES are nearly identical to those for Enviro-Septic®; the only difference is to ensure that pipes are positioned so that the white Bio-Accelerator™ is centered along the bottom of the pipe, and venting is mandatory for AES. The State of Maine has approved AES under the same terms and conditions and using the same manual as is currently being used for Enviro-Septic®. For non-NSF certified systems, the Enviro-Septic® Design and Installation Manual and Maine State Attachment provide requirements for design, installation and use. It is acceptable to substitute AES into a plan for an Enviro-Septic® system; however, if the designer’s plan specifies AES, Enviro-Septic® cannot be substituted for AES. For a limited time during this transition, we will continue to offer original Enviro-Septic® to accommodate customers who have already submitted plans for or contracted for an Enviro-Septic® system. Industry Professionals who are certified to design/install Enviro-Septic® in Maine will not be required to re-certify in order to use AES; however, certification will be required for those who have not previously completed Enviro-Septic® training. We encourage you to visit our website to learn more about the many advantages offered by Advanced Enviro-Septic™. Certification training is now available via the convenience of online webinars.

Advanced Enviro-Septic™ can be used in non-NSF Certified systems and in NSF-40 Certified Systems: Non-NSF Certified AES systems provide exceptional treatment combined with effective dispersal and require no electricity, alarms, sampling devices or special maintenance and provide a multitude of design options. Given the virtually unlimited range of possible shapes/sizes/configurations, it was simply impractical to subject every one to testing, since NSF’s rules require that the “certified system” must be the same as what was tested.

For the majority of residential and commercial applications, AES is installed in a bed format (level or sloping, subsurface or elevated mound) with dispersal after treatment into underlying soils; in other words, it is used in the same way as Enviro-Septic® in addition to being used in NSF Certified Systems. Like Enviro-Septic®, AES provides *exceptional* design flexibility by offering a multitude of possible shapes and configurations that allow each system to be customized to suit the soil conditions and topography of the site. NSF 40 Certified systems can only be installed by Authorized Representatives of PEI per the NSF Installation Manual dated October 2009.

What is NSF? NSF International (also known as “The Public Health and Safety Company™”) is an independent, non-profit organization recognized throughout the world as a leader in standards development and product certification. Their mission is to protect and improve human health on a global scale by certifying food, water and consumer products. To learn more, visit www.nsf.org. NSF is accredited by the American National Standards Institute (ANSI).

What is NSF Standard-40? NSF International/ANSI Standard 40 sets performance standards for onsite wastewater treatment devices for residential systems with hydraulic capacities from 400 to 1500 gallons per day. The systems that usually obtain NSF-40 Class I Certification are expensive, complicated mechanical devices. In order to receive Standard 40 Class I certification, systems are tested for a minimum of six months following NSF’s protocol and must achieve EPA “secondary treatment” results.

What are the results of Advanced Enviro-Septic™ testing? Ongoing testing of the Advanced Enviro-Septic™ System has proven that it not only meets but far exceeds the effluent quality standards of NSF-40’s Class I Certification, BNQ’s Secondary and Advanced Secondary Treatment Certifications and the US EPA Tertiary Treatment guidelines. During the most recent testing of the product at the BNQ in Quebec, Canada, the effluent treated by Advanced Enviro-Septic™ averaged <2 mg/L of CBOD5 and <2 mg/L TSS, in addition to achieving significant removal of fecal coliforms.

Results of Performance Testing by BNQ 04/06/08 to 10/04/08				
Parameter Measured (Averages)	EPA Tertiary Treatment Guidelines	NSF-40 Class I (EPA Secondary)	BNQ Advanced Secondary	Advanced Enviro-Septic™ Test Results
CBOD5 (mg/L)	10	< 25	< 15	<2
TSS (mg/L)	10	< 30	< 15	<2
Fecal Coliforms (CFU/100 mL)	1,000	n/a	50,000	218

What is the difference between NSF-40 and BNQ Testing Protocols? While NSF requires six (6) months of testing, BNQ requires a full twelve (12) months of testing in order to ensure that systems function as expected during all possible weather conditions. Annex A of BNQ testing corresponds to the six (6) months of NSF testing. Our system’s testing was performed by the BNQ in Quebec, Canada. All testing protocols were in conformity with NSF’s requirements, and Advanced Enviro-Septic™ not only met but far exceeded the effluent quality required by Standard 40. Obtaining this certification required proving the system’s ability to start providing treatment within three weeks of installation.

Advanced Enviro-Septic™’s Track Record: While new to the US market, Advanced Enviro-Septic™ has a track-record of reliable performance for several years throughout Canada, where it has achieved BNQ certification for both Secondary and Advanced Secondary treatment (see BNQ Certificate Number 890, www.bnq.qc.ca). AES improves upon and incorporates all the features of original Enviro-Septic®, which has earned an excellent reputation for effectiveness and reliability based on its successful use in tens of thousands of systems in New England, Canada and the Midwest. AES provides accelerated and enhanced environmental protection comparable to an expensive mechanical device while still being one of the most affordable alternatives for onsite wastewater treatment. By offering exceptional performance that is relatively inexpensive to purchase and simple to maintain, Advanced Enviro-Septic™ offers consumers an environmentally responsible alternative that is also cost-effective.

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