



Presby Environmental, Inc.

The Next Generation of Wastewater Treatment Technology

TECHNICAL BULLETIN

Advanced Enviro-Septic™ Receives NSF International/ANSI Standard 40 Class I Certification

Presby Environmental, Inc.'s flagship product, the Advanced Enviro-Septic™ Treatment System ("AES"), has received Certification under NSF International/ANSI's Standard 40 for Wastewater Treatment Devices. 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, expensive mechanical devices and advanced treatment units (ATUs) that usually obtain NSF-40 Class I Certification. AES is also certified as a Secondary and Advanced Secondary Treatment System by the Bureau de Normalisation du Quebec (BNQ).

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 about NSF and their certification programs, visit www.nsf.org. NSF is accredited by the American National Standards Institute (ANSI).

What is NSF-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. In order to receive Standard 40 Class I certification, systems are tested for a minimum of six months following NSF's protocol; the system must achieve the following effluent quality (EPA "secondary treatment" criteria):

- 30-day average CBOD5 less than 25 mg/L
- 30-day average Total Suspended Solids less than 30 mg/L
- pH between 6.0 and 9.0
- No color, offensive odor, oily film or foam detectable

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	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 four seasons. 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.

What is the difference between Enviro-Septic® and Advanced Enviro-Septic™? Advanced Enviro-Septic™ is the "next generation" of our Enviro-Septic® product, which has been used with superior results since 1995. While new to the US market, Advanced Enviro-Septic® has a track-record of reliable performance for many 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 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.

What is the difference between the SPD and CTD models? There are two AES models that have received NSF-40 certification—our SPD ("Single Point Discharge") model and our CTD ("Combined Treatment & Dispersal") model. The SPD model is installed completely within an impermeable geomembrane, and all effluent is collected and then sent to a dispersal field. The CTD model is installed without a bottom, allowing treated effluent to be safely dispersed into the underlying soils below the system. The AES CTD model is the first of its kind to achieve NSF-40 Class I certification; it provides both treatment and dispersal using non-mechanical processes and never needs replacement media.

What is different about an NSF-40 Certified Installation?

All NSF certified installations include the first two years of maintenance, four inspections/sampling of effluent and a two-year Manufacturer's Warranty. Products installed in an NSF Certified System will bear the NSF Mark similar to this:



Is certification required to install an NSF Certified System? Yes. An NSF Certified Advanced Enviro-Septic™ System can only be installed or serviced in the first two years of operation by an Authorized Representative who has been thoroughly trained by the manufacturer. However, pending state approval, designers/installers already trained/certified by Presby Environmental, Inc. in the use of our Enviro-Septic® product will be authorized to design/install non-NSF certified systems using the Advanced Enviro-Septic® product per Enviro-Septic® design/installation criteria.

Interested in learning more about becoming an Authorized Representative? We are always seeking experienced professionals who are interested in becoming Authorized Representatives in order to keep up with consumer demand for the Advanced Enviro-Septic™ System. Contact us for more information.

Prepared by,

Presby Environmental, Inc.

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