



RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
235 Promenade Street, Providence, Rhode Island 02908

Alternative/Experimental OWTS Technology Program

Applicant Information:

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Technology Name

Advanced Enviro-Septic® Tri-Pipe Wastewater System

Technology Approval Type:

Alternative Leachfield Component – Class One

Certification Dates:

Approved: April 29, 2021
Revised: December 21, 2022
No Expiration

CERTIFICATION

The Rhode Island Department of Environmental Management (RIDEM) has reviewed the Alternative Technology application for the Advanced Enviro-Septic® (AES) Tri-Pipe Wastewater Leachfield System, hereafter referred to as the “Component”. Based upon information contained in the application the RIDEM hereby accepts the Component for listing on the RIDEM Alternative and Experimental (A/E) Technology List as a Class One Leachfield Component.

The Component is designed to provide combined treatment and dispersal of wastewater that has received primary treatment in a septic tank. The Component utilizes a unique combination of components that work together to treat effluent and prevent suspended solids from sealing the underlying soil. The Component is designed to treat effluent that has received primary treatment in a septic tank. Comprised of a patented corrugated, perforated plastic pipe with interior skimmer tabs and cooling ridges, the large-diameter pipe retains suspended solids while the Bio-Accelerator® fabric, coarse fibers, and geo-textile fabric provide multiple bacterial surfaces to treat effluent prior to its contact with the receiving soils. The AES pipes are surrounded by a bed of specified sand, which facilitates the process by wicking the treated liquid out of the pipes and ensures that the Component receives sufficient oxygen to support a healthy population of bacteria. The treated wastewater percolates through the Component sand and is then released into the underlying soil.

The RIDEM recognizes the Component as a Class One Alternative Leachfield Component.

Design and installation of the Component shall be in accordance with the following terms and conditions:

I. General Design Requirements

1. The Component approval is for the Advanced Enviro-Septic® (AES) Tri-Pipe System only.
2. The Component may receive septic tank effluent of residential strength from residential and commercial sources.
3. In high strength wastewater applications, a pretreatment device must be added to the treatment train prior to the Component to reduce the wastewater strength to residential effluent levels.
4. The Component must be designed with a septic tank that includes a septic tank effluent filter.

5. The Component is approved for gravity distribution only.
6. No reduction in leachfield area is allowed even with advanced pretreatment.
7. Venting of the Component is required for cover depths greater than eighteen (18) inches.
8. Sizing will be in accordance with the RIDEM OWTS Rules, as applicable. One linear foot of the AES Tri-Pipe system is equivalent to 7 square feet of leaching area.
9. The maximum trench length is 100ft and the minimum separation distance between trenches is 6ft measured wall to wall.
10. Separation to the seasonal high-water table or separation to ledge shall be measured from the location where the bio-mat forms at the interface between the AES Tri-Pipe system and the underlying system sand.
11. Separation to the seasonal high water table and ledge shall be in accordance with OWTS Rule 6.33 as measured from the bottom of the AES piping.
12. A minimum fill perimeter of 10 feet is required for all installations.
13. Minimum depth of cover must be equal to 7 inches measured from the top of the AES piping. Maximum depth of cover shall be 30 inches. Cover material must have a minimum of three (3) inches of system sand above the pipe and a minimum of 4 inches of soil capable of sustaining plant life.
14. The Component is not approved for H-20 loading.
15. Design and installation shall be in strict conformance with the RIDEM-approved “RI Design and Installation Manual for Advanced Enviro-Septic® (AES) Tri-Pipe Wastewater System” dated: **December 2022**.
16. Design and installation only be performed by a Rhode Island licensed designer/installer who has received training and is authorized in writing by the Vendor to design/install the Component.
17. Each Component design shall meet all other applicable OWTS standards and receive prior approval by the RIDEM pursuant to the regulations in effect at the time of application.

II. Training

1. The Vendor shall make training available for designers, installers, and service providers.
2. The Vendor shall make available to the public, a means of verifying individuals, by name and category, who have received training and are authorized in writing by the Vendor to design, install, and maintain the Component.

III. General Certification Requirements

1. The Vendor shall submit a guidance document detailing design, installation, operation and maintenance requirements for the Component. When this certification and the associated design, installation and operation and maintenance guidance document are approved by RIDEM, training may be held.
2. The Vendor is responsible for providing any revisions to the design, installation, operation and maintenance guidance document to RIDEM for review and approval within thirty (30) days of RIDEM request. All manuals must be provided to the RIDEM in electronic portable document format (pdf).
3. The Vendor shall notify the RIDEM in writing of any changes to the Component, including its discontinuation. Modifications deemed by the RIDEM to be substantial, may require re-application to the alternative/experimental program.

IV. Operation and Maintenance Requirements

1. Operation and maintenance of the Component shall be performed in strict conformance with

the RIDEM approved “RI Design and Installation Manual for Advanced Enviro-Septic® (AES) Tri-Pipe Wastewater System” dated March 2021.

2. The RIDEM approved “RI Design and Installation Manual for Advanced Enviro-Septic® (AES) Tri-Pipe Wastewater System” dated March 2021 shall be provided to the Owner/Operator.

V. Rights of the RIDEM

1. The RIDEM may suspend, modify or revoke this approval for cause, including but not limited to: non-compliance with any of the provisions or conditions of this Certification, misrepresentation or failure to disclose fully all relevant data, or receipt of new information indicating that the use of the Component is contrary to the public interest, public health or the environment.
2. The RI Design and Installation Manual for Advanced Enviro-Septic® (AES) Tri-Pipe Wastewater System dated March 2021 referenced herein is approved upon the date of approval of this Certification.
3. The RIDEM reserves the right to suspend or revoke this Certification if updated design, installation, and O&M manuals are not provided to the RIDEM within thirty (30) days of RIDEM request or one hundred and eighty (180) days prior to the expiration date of this Certification. All revisions must be reviewed and approved by the RIDEM.
4. This approval does not represent an endorsement of the Component by the RIDEM. This letter of approval may be reproduced only in its entirety.

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Issuance Date