



State of Vermont
Department of Environmental Conservation
Drinking Water & Groundwater Protection Division
1 National Life Drive, Main 2
Montpelier, Vermont 05620-3521
http://www.anr.state.vt.us/dec

Innovative/Alternative System Approval

General Use per §1-1001 of the Wastewater System and Potable Water Supply Rules, September 29, 2007

GEO-Flow® Pipe Leaching System 2013 Original Approval Approval Number 2013-01

Vendor Information

GEO-Flow® Pipe Advanced Drainage Systems, Inc. 4640 Trueman Boulevard Hilliard, OH 43026 Phone: 800-733-7473

Fax: (614) 658-0204 www.ads-pipe.com

Contact

Dick Bachelder ADS, Inc. 71 Orchard Farm Road York, Maine 03909 Office: (207) 363-2528

Mobile: (603) 498-5306 Fax: (866) 254-9590

Email: bach@maine.rr.com

Expiration Date March 7, 2015

Technology Name

GEO-Flow® Pipe Leaching System

Technology Type

Gravelless Pipe Distribution System for Septic Tank Effluent

Approval

The GEO-Flow® Pipe Leaching System may be used as part of a subsurface wastewater disposal system approved under the Wastewater System and Potable Water Supply Rules, effective September 29, 2007 (Rules) under the following conditions:

1. The leaching systems must be designed, installed and operated as described in the GEO-flow® Pipe Leaching System, Specifications & Features, Design & Installation Manual-Vermont, dated March, 2013, as filed with the Agency of Natural Resources (Agency).

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- 2. This approval is based on dispersal only of domestic wastewater of low and moderate strength as specified in §1-915(a)(1)(C) & (D) of the Rules. No high strength wastewater shall be dispersed using this technology. Furthermore, the GEO-Flow® Pipe Leaching System shall not be used as a filtrate effluent disposal system.
- 3. The system may be used for both new and replacement systems.
- 4. If the Rules are revised during the term of this approval, this approval shall be revised as needed to conform to the revisions.
- 5. The Licensed Designer (Designer) shall provide a copy of this approval letter to any landowner who is a prospective purchaser of the GEO-flow® Pipe Leaching System prior to the sale of the system and prior to the filing of any application for a site-specific approval by the Agency for the purchaser's property. The application filed with the Agency shall include the landowner's written acknowledgement of this approval letter. Prior to any sale of the property or completion of a sales agreement to sell the property, a copy of the site-specific permit shall be provided to the prospective purchaser
- 6. The Vendor (aka manufacturer) shall train and certify Designers and installers in the proper use and installation of the GEO-Flow® Pipe Leaching System.
- 7. A site-specific permission for the use of this product is required in the form of a Wastewater System and Potable Water Supply Permit when a project is subject to the Rules.
- 8. A site-specific permit for the use of this product may be revoked if the system fails to function properly. Revocation of the permit will require that the use of the building be discontinued unless another wastewater disposal system is installed based on prior written approval by the Agency.
- 9. Serial distribution shall be limited to 100 feet of pipe along the contour, and 500 feet total.
- 10. This approval is not a representation or guarantee of the effectiveness, efficiency or operation of the GEO-Flow® Pipe Leaching System.

Homeowner Requirements

- 1. A copy of the permit shall be provided to any prospective purchaser prior to the sale.
- 2. Each new owner of the property shall inform the appropriate Regional Environmental Office of the Agency within 30 days of the transfer of the property and include the name and mailing address of the new owner.

Vendor Requirements

The Vendor (*aka* manufacturer) shall submit an annual report for all systems that have a Wastewater System and Potable Water Supply Permit electronically, to both the Agency's Central Office (Attention Innovative/Alternative Program Manager) and the Regional Office that issued the permit by April 1 of each year containing the following information for the 12 month period ending December 31 of the previous year. Each report shall contain the following information:

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- A. New permitted systems installed in Vermont for the previous year and shall include:
 - 1. Assigned Wastewater Permit Number;
 - 2. Physical and mailing addresses;
 - 3. Name of Current Landowner;
 - 4. Name of Designer Providing the Installation Certification;
 - 5. Name of Installer.
- B. Existing permitted systems with known change in ownership shall include the Wastewater System and Potable Water Supply Permit Number; the physical and mailing address, and the name of the current landowner.
- C. Each annual report shall include all known system problems, damages and/ or failures including:
 - 1. Description of Issues;
 - 2. Potential/Known Causes of Problems;
 - 3. System Operability;
 - 4. Recommended Repair/Remediation;
 - 5. Date(s) of Repair/Remediation;
 - 6. Effectiveness.

Note: Repairs that are not defined by Rule as "minor repair" require approval by the Division prior to making the repair.

D. Names of Designers and Installers Trained by the Vendor.

Design and Review Conditions

The following conditions shall be used by the Department in reviewing permit applications that include a GEO-Flow® Pipe Leaching System:

- The leaching system shall be designed in accordance with the most-current approved Vermont Design and Installation Manual.
- The designer shall assure that the system will properly function in all seasons.
- The designer must assess the ventilation path for the particular application and make any necessary provisions to assure proper flow and control of odor emissions.
- The designer shall provide the owner with written guidance on the annual maintenance requirements and homeowner responsibilities in the care and use of an onsite wastewater system according to the GEO-Flow® Pipe Leaching System requirements for use of the product.
- The designer shall include in the design a septic tank effluent filter with easy access for inspection and cleaning on a minimum of an annual basis.

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Installation Inspection

- The leaching system shall be installed in accordance with the approved plans and under the instruction and guidance of an installer/inspector trained by the Vendor.
- The leaching system shall be inspected by a Licensed Class 1 Designer or a Licensed Class B Designer, approved by the Vendor, during installation of the system and all tanks prior to backfilling, and after backfilling and grading is complete. The inspection shall include checking for levelness of the pipes, and inspecting for damage and proper assembly. A letter certifying that the system is correctly installed shall be provided electronically to the Vendor and both the Agency's Central Office (Innovative/Alternative Program Manager) and the Regional office that issued the permit.
- The Designer shall inspect all transport piping for proper installation and watertightness before backfilling.

Permitting

- The permit shall run with the land.
- A copy of the permit shall be provided to any prospective purchaser prior to the sale.
- Each new owner of the property shall inform the appropriate Regional Environmental Office of the Agency within 30 days of the transfer of the property and include the name and mailing address of the new owner.

Effective March 7, 2013

Ernest Christianson Engineering Manager