VERMONT

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Agency of Natural Resources

Innovative/Alternative (I/A) System Approval For General Use

Original Approval Date: June 23, 2014
Approval Number: 2014-01
Revision Date: N/A
Expiration Date: June 22, 2016

Vendor Information

American Manufacturing Company, Inc.
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Technology Name

Perc-Rite® Drip Distribution Units
ASD-15, ASD-25, ASD-40

Contact

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Technology Type

Septic Tank Effluent to Filtration and Drip Distribution

I. Authority

A. In accordance with the Environmental Protection Rules, Chapter 1, Wastewater System and Potable Water Supply Rules (Rules), Effective September 29, 2007, Subchapter 10, Approval of Innovative/Alternative Systems and Products § 1-1001: Innovative/Alternative Systems and Products: General Use, the Secretary (Secretary) of the Agency of Natural Resources (Agency), Department of Environmental Conservation, Drinking Water and Groundwater Protection Division (Division) has determined that the technologies listed in this approval may be used as part of a soil based disposal system permitted under the Vermont Wastewater System and Potable Water Supply Rules (Rules), provided the conditions of this approval are met.

B. Section §1-923 of the Rules allow for subsurface drip distribution to be used as a filtrate disposal system with advanced treatment by a sand filter or an approved I/A treatment unit. This approval is to allow the use of Perc-Rite® subsurface drip distribution equipment without filtrate pretreatment and with domestic strength septic tank effluent from a septic tank designed in accordance with §1-1001. No reductions in sizing or vertical separation distances are allowed under this approval except as allowed by variances or other waivers specified in Section §1-806. When used with a pre-treatment I/A system, other models are available and reductions can be granted for sizing and vertical separation distances to limiting soil conditions.

II. General

A. This approval authorizes specific requirements related to the design, installation, operation and maintenance of the technology. The landowner where this technology is specified must agree to specific requirements for ongoing operation and maintenance of this system. The landowner should carefully read this approval letter, particularly the requirements for proper operation and maintenance.

B. The manufacturer (vendor) of the technology also has specific requirements for design review, training, installation oversight, annual reporting, and supporting the operation, maintenance and repairs needed to keep the system in working condition. This approval contains an expiration date and requires the vendor to submit an application for renewal of this approval.

C. This approval authorizes specific drip distribution configurations and models designed to handle septic tank effluent instead of requiring advanced treatment as indicated in §1-916.

III. Approval Conditions

A. The technologies listed in this approval may be used as part of a subsurface drip distribution soil based disposal system permitted under the Rules provided the conditions of this approval are met. Failure by the vendor to comply with this approval is grounds for the Agency to revoke or not renew the approval.

B. This approval shall expire on the date stated above. Applications for renewal of this approval shall be submitted 45 days before the expiration date. The renewal request shall include a description of any changes to the equipment, technical specifications and drawings, installation requirements, operation and maintenance requirements, and homeowner's manuals. If new models are introduced or changes are made to the technology, the vendor shall submit detailed descriptions of any modifications to existing approved models as part of the renewal application.

C. Each Innovative/Alternative drip distribution model shall be installed and operated as approved by the Agency and as required by the vendor's design, installation, and operation and maintenance manuals, and as listed on the vendor's website.

D. Subsurface drip distribution unit sizing shall be in accord with the vendor's technical requirements approved by the Agency. Sizing of each system shall be based on the calculated design flow per §1-808 of the Rules. The absorption bed application rate shall be used for all slopes with no minimum width. The linear loading rate requirements must be addressed by using Subsection 1-916(a)(3)(E) or Appendix 7-A of the Rules.

E. No site specific hydrogeologic evaluation is required except as needed for in-ground systems greater than 2,000 gpd; performance-based mounds; mound systems greater than 1,000 gpd; or filtrate systems.

F. The subsurface drip distribution system may be used for both new and replacement wastewater systems.

G. If the Rules are revised during the term of this approval, this approval shall be revised as needed to conform to the revisions.

H. Site-specific permission for the use of this product is required in the form of a Wastewater System and Potable Water Supply Permit (WW Permit) when a project is subject to the Rules.

I. This approval is not a representation or guarantee of the effectiveness, efficiency, or operation of the subsurface drip distribution system.

J. This general use approval is based on treatment of domestic wastewater of low and moderate waste strength as specified in §1-915(a)(1)(C) and (D) of the Rules.

K. Perc-Rite® Drip Dispersal is timed-dosed and considered equivalent to pressure distribution. No stone is required beneath the subsurface drip dispersal tubing nor is filter fabric required above the drip dispersal tubing.

L. Setback distances are reduced for trees, from 10 feet to two feet. Where extensive trees are indicated, increased drip field sizing may be required as part of the design. See the design and installation manuals for additional guidance.

IV. Responsible Parties, Requirements and Conditions

A. Landowner

1. The landowner must comply with all conditions of their WW Permit in addition to the conditions of this approval.

2. The landowner is responsible for the drip distribution system to be inspected by a Licensed Designer as part of the installation inspection and certification of the soil based disposal system.

3. The landowner shall have a valid maintenance contract with a vendor-trained and authorized licensed designer or service provider in force at all times. The contract shall include a requirement for annual inspections. Commercial and community soil based wastewater disposal systems may require more frequent maintenance as recommended by the vendor. The minimum length of any contract shall be for a period of two years.

4. A copy of the initial contract and notification of each succeeding contract shall be submitted to the appropriate Regional Office of the Division and to the vendor.

5. A copy of all inspection and maintenance reports shall be submitted to the appropriate Regional Office of the Division within 60 days of the inspection. The landowner may authorize the licensed designer or the service provider to submit the contracts, notifications and reports on their behalf.

6. The landowner shall keep the system in good operating condition and report any problems to the service provider who, in turn, shall note any problems and repairs on their inspection report.

7. The landowner shall provide a copy of this approval, the WW Permit, and the operating instructions, provided by the vendor, to any person who is a prospective purchaser of a property prior to the sale of the property.

8. Within 30 days of the transfer of the property, the new landowner shall inform the appropriate Regional Office of the Division and the vendor of the change in ownership, including the WW Permit number, lot number or street address, and the new owners' name and mailing address.

9. The WW Permit that authorizes the use of this product may be revoked if the drip distribution system fails to function properly or if the landowner fails to maintain a valid contract for the required maintenance and inspections of the subsurface drip distribution system. In the event the WW Permit is revoked, the use of the building will need to be discontinued unless another wastewater treatment and disposal system is installed in accordance with a WW Permit issued by the Secretary.

B. **Vendor**

1. The vendor shall provide the Central Office of the Division (Attention Innovative/Alternative Program Manager) with the names of the Vermont distributor(s) within 60 days of this approval and within 30 days of termination and/or hiring a new firm or sole proprietorship during the term of this approval.

2. The vendor shall provide training for and maintain a list of trained designers and installers.

3. Within 30 days of this approval, the vendor shall provide a Design Manual and an Installation Manual for systems designed under this approval.

4. The vendor shall provide training and maintain a list of trained service providers authorized to work on the units.

5. Prior to selling equipment, the vendor shall provide information to the Division regarding who is authorized to sell equipment in Vermont.

6. The vendor shall have an inventory of replacement parts available locally or available for delivery within 24 hours.

7. Prior to the start-up of the wastewater system, detailed operating instructions shall be provided in writing by the vendor to the landowner.

8. The vendor shall submit an annual report electronically to the Central Office of the Division (Attention Innovative/Alternative Program Manager) by April 1st of each year containing the following information for the 12 month period ending December 31st of the previous year:

a) Permitted systems installed in Vermont during the previous calendar year, including:

i. Assigned WW Permit number;

ii. Name of current landowner(s);

iii. Physical and mailing addresses of landowner;

iv. Name of Licensed Designer providing the installation certification;

v. Date installed;

vi. Name of the installer; and

vii. Name of the authorized service provider.

b) A summary of all known system problems, damages and/or failures, including:

i. Description of issues;

ii. Potential/known causes of problems;

iii. System operating condition;

iv. Recommended repair/remediation; and

v. Changes in technology specifications.

c) A list of names of licensed designers and installers trained by the vendor and/or the vendor's representative.

d) The names and contact information for trained and authorized service providers.

C. Licensed Designer

1. Design Preparation

a) Class B and Class 1 designers may design these systems within the bounds of their licenses.

b) The design of a wastewater system shall include the specific model of the drip distribution system approved in this document.

c) The designer shall consult with the vendor for proper design and sizing of the distribution unit.

d) The designer must indicate if the subsurface drip dispersal tubing is to be placed in or above the ground, and specify material to be placed below and above the drip field as might be needed.

2. Installation Inspection

a) The drip distribution system shall be installed under the guidance of a representative of the vendor.

b) The distribution system shall be inspected by a licensed designer before backfilling, and after backfilling and grading is complete. The inspection shall include checking for the location of the drip field, the watertightness of the connections and flow rate.

c) The licensed designer shall submit an installation certification letter to the WW permit holder, the vendor, and the appropriate Regional Office of the Division within 30 days of the installation, using the language of §1-308 of the Rules, that the wastewater system was correctly installed. The certification letter shall identify any repairs that were completed during the installation.

3. Operation Oversight

a) The licensed designer may be required to conduct on-going inspections of the system beyond the routine maintenance provided by the service provider. See the WW permit for any special inspection and monitoring conditions, if applicable.

D. Service Provider

1. Maintenance and inspections shall be performed in accordance with the manufacturer's operation and maintenance manual submitted as part of the Innovative/Alternative System application package, and as provided in trainings by the vendor.

a) Qualified Service Providers

i. Maintenance and inspections of the subsurface drip distribution system must be performed by a licensed designer or service provider trained and authorized by the vendor.

ii. Problems found with any portions of the wastewater system (including the system being failed as defined by the Rules) must be reported immediately to the landowner.

b) Maintenance and Inspection

i. The start-up, six month, and ongoing maintenance and inspections shall be performed by the authorized service provider.

ii. After the first year of operation, annual inspections must be completed. More frequent inspections may be required when recommended by the vendor or on a case-by-case basis by the Secretary.

iii. All reports must be submitted to the landowner in a timely manner so that they can provide the report to the appropriate Regional Office of the Division as well as the vendor within 60 days of completing a maintenance or inspection.

c) Maintenance and Inspection Reports

Maintenance and inspection reports shall include:

i. I/A Maintenance and Inspection Report Coversheet;

ii. Current landowner's name, physical and mailing address;

iii. Permit number and lot number(s) if applicable;

iv. Date of inspection;

v. I/A technology and model;

vi. Validation that the system is operational and meets vendor requirements;

vii. Comments or outstanding corrective actions and recommended due dates;

viii. Any site/system modification;

ix. Service Provider/Licensed Designer name, signature and date signed.

Effective Date: June 23, 2014

By: Ernest Christianson
Ernest Christianson
Regional Office Program Manager