



State of Vermont

AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation

Department of Fish and Wildlife
Department of Forests, Parks and Recreation
Department of Environmental Conservation
State Geologist

RELAY SERVICES FOR HEARING IMPAIRED
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Innovative/Alternative System Approval

General Use per §1-309 of the
Wastewater System and Potable Water Supply Rules, effective August 16, 2002

#2002-03-R1 (Renewal)(Corrected)

Vendor Information

SeptiTech, Inc.
220 Lewiston Road
Gray, Maine 04039

Technology Name

SeptiTech Residential Series
SeptiTech Commercial Series

Contact

Don R. Rousseau
Vice President
SeptiTech, Inc
220 Lewiston Road
Gray, Maine 04039
Phone (207) 657-5252
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Technology Type

Recirculating Trickling Filter

Expiration Date

November 1, 2006

Local Contact

Paul Beauregard
ST Griswold, Inc.
193 Industrial Ave.
Williston, Vermont 05495

Approval

The SeptiTech Models M400, M550, M750, M1200, M1500 and M3000 may be used as part of a subsurface wastewater disposal system approved under the Wastewater System and Potable Water Supply Rules, effective August 16, 2002 under the following conditions:

1. The treatment units must be installed and operated as described in the Innovative/Alternative System application package filed with the Agency of Natural Resources (Agency) on April 19, 2002.
2. Unit sizing must be in accord with the technical information submitted with the Innovative/Alternative System application package on April 19, 2002. The sizing

Innovative/Alternative System Approval
#2002-03-R1 (Renewal)(Corrected)

shall be based on the calculated design flow per §1-504 of the Wastewater System and Potable Water Supply Rules, effective August 16, 2002.

3. This approval is based on treatment only of domestic wastewater of low and moderate strength as specified in §1-519(a)(1)(C) & (D) of the Wastewater System and Potable Water Supply Rules, effective August 16, 2002.
4. The system may be used for both new and replacement systems.
5. All effluent from a SeptiTech System shall be discharged to a filtrate disposal system that conforms to the requirements of §1-520 of the Wastewater System and Potable Water Supply Rules, effective August 16, 2002. If the rules are revised during the term of this approval, this approval shall be revised as needed to conform to the revisions, taking into consideration SeptiTech's timed microdosing of the filtrate disposal system.
6. Each application for use shall demonstrate the ability to construct a fully complying replacement system.
7. Detailed operating instructions shall be provided in writing to the owner/operator.
8. The vendor shall have an inventory of replacement parts available locally.
9. The vendor shall provide a copy of this approval letter to any landowner who is a prospective purchaser of a SeptiTech 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.
10. The owner of a property where a SeptiTech System has been installed shall have a valid maintenance contract in force at all times. The minimum length of any contract shall be for a period of two years. A copy of the initial and each succeeding contract shall be submitted to the appropriate Regional Environmental Office of the Agency. Maintenance shall be performed or supervised by a Vermont Licensed Professional Engineer or a Licensed Type B Designer, approved by the Vendor, who shall provide written inspection reports detailing the maintenance performed on the specific system, any problems that have occurred since the previous inspection, any modifications made to the system, the date of the inspection, and any work required to ensure the system operates in compliance with this approval with this approval. The inspection shall be performed in accord with the manufacturers Operation and Maintenance Manual submitted as part of the Innovative/Alternative System application package. If at any inspection the effluent is cloudy or pungent smelling a sample shall be

Innovative/Alternative System Approval
#2002-03-R1 (Renewal)(Corrected)

collected and tested for BOD₅ and TSS. The results of any testing shall be submitted with the annual inspection report.

11. The first inspection shall be completed no later than 6 months after placing the system in service. The second inspection shall be completed no later than 12 months after placing the system in service. Subsequent inspections shall be completed at least once per year based on the date when the system was first placed in service. All reports shall be filed with the appropriate Regional Environmental Office of the Agency and the landowner no later than 30 days after the date of inspection.
12. The vendor shall submit an annual report to the Agency by April 1 of each year containing the following information for the 12 month period ending December 31 of the previous year:
 - A. The number of permitted systems installed in Vermont, including those permitted by the Agency and those permitted by Towns under authority of 24 V.S.A. Chapter 102.
 - B. The address of each installation.
 - C. The name of the owner at the time of installation and any known change in ownership.
 - D. All known problems or failures, with a brief summary of the cause and remedial measures taken.
 - E. Certification of all inspections having been completed and the dates of those inspections.
13. This approval is based on information submitted by the Vendor indicating that the specified models and treatment modes will routinely provide effluent with no more than 30 mg/l of BOD₅ or more than 30 mg/l of TSS.
14. When the project is subject to the Wastewater System and Potable Water Supply Rules, effective August 16, 2002 site specific permission for the use of this product is required in the form of a Wastewater System and Potable Water Supply Permit.
15. A site-specific permit for the use of this system may be revoked if the system fails to function properly or if the property owner fails to have a valid contract for the required maintenance and inspection of the system. 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.

Innovative/Alternative System Approval
#2002-03-R1 (Renewal)(Corrected)

16. A town that regulates wastewater disposal systems under 24 V.S.A., Chapter 102 and whose ordinance permits, may approve use of a SeptiTech System subject to all conditions in this approval. The town shall ensure that the maintenance contract is in effect and that the required maintenance is performed.
17. This approval is not a representation or guarantee of the effectiveness, efficiency or operation of this system.

Design and Review Conditions

The following conditions will be used by the Department in reviewing permit applications that include a SeptiTech System.

Equipment

- Models M400, M550, M750, M1200, M1500, or M3000

Design and Application

- The treatment unit will be completely buried except for the access hatch. If this is not possible the designer shall place it in a berm and submit heat loss calculations to justify that it will properly function in all seasons.
- The designer must assess the structural needs of the unit for the specific application site and place the requirements on the design plans.
- The designer must determine the type of backfill required and any necessary placement specification.
- 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 include in the design a septic tank effluent filter with easy access for inspection and cleaning.
- The designer must assure routine access to the unit hatch and the septic tank effluent filter.
- The designer must address flotation issues if the SHWT will be above the bottom of the tank.

Installation Inspection

- The treatment unit shall be set up under the instruction and guidance of an installer/inspector trained by the manufacturer.
- The treatment unit shall be inspected by a Professional Engineer registered in Vermont as a civil, civil/sanitary, sanitary or environmental engineer or a Licensed Type B Designer, approved by the Vendor, after placement in the excavation and before backfilling, and after backfilling and grading is complete. The inspection shall include checking for an adequate structural

Innovative/Alternative System Approval
#2002-03-R1 (Renewal)(Corrected)

foundation to support the unit, checking for levelness of the tank, and inspecting for damage and proper assembly.

- Before backfilling, the tankage will be tested for watertightness by filling the unit with water to a height within the hatch riser and holding it at a constant level for 24 hours; there shall be no measurable leakage. During the test the entire tank shall be inspected for visible leaks. Should the tank fail the test it may be repaired and retested. The testing and repairs shall be conducted under the direction and in the presence of the inspecting engineer or site technician.
- The Professional Engineer or Licensed Designer shall inspect all piping for proper installation and watertightness before backfilling.

Start-up

- Start-up of the system and initial operational checks shall be conducted by an installer/inspector trained by the manufacturer, who shall submit a report to the owner and the inspecting Professional Engineer or Licensed Designer indicating any problems encountered, their resolution, and affirmation that the system is operating as intended.

Operational Maintenance and Inspection

- The owner shall have a valid maintenance contract in force at all times. The minimum length of any contract shall be for a period of two years. A copy of the initial and each succeeding contract shall be submitted to the appropriate Regional Environmental Office of the Agency. Maintenance shall be performed by, or shall be supervised by, a Vermont Licensed Professional Engineer or a Licensed Type B Designer, approved by the Vendor, who shall provide written inspection reports detailing the maintenance performed on the specific system, any problems that have occurred since the previous inspection, any modifications made to the system, the date of the inspection, and any work required to ensure the system operates in compliance with this approval. The inspection shall be performed in accord with the manufacturers Operation and Maintenance Manual submitted as part of the Innovative/Alternative System application package. If at any inspection the effluent is cloudy or pungent smelling a sample shall be collected and tested for BOD₅ and TSS. The results of any testing shall be submitted with the annual inspection report.
- The first inspection shall be completed no later than 6 months after placing the system in service.
- The second inspection shall be completed no later than 12 months after placing the system in service.
- Subsequent inspections shall be completed at least once per year based on the date when the system was first placed in service.

Innovative/Alternative System Approval
#2002-03-R1 (Renewal)(Corrected)

- All inspection reports shall be filed with the appropriate Regional Environmental Office of the Agency and the landowner no later than 30 days after the date of inspection.

Permitting

- The permit shall run with the land.
- A copy of the permit shall be provided to any prospective buyers 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 October 30, 2004 by Roger Thompson Jr
Roger Thompson, Jr.
Regional Office Programs Manager

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