



Alternative/Experimental OWTS Technology Program

Vendor Information

SeptiTech, LLC
70 Commercial Street, Suite 3
Lewiston, Maine 04240

Contacts:

Dan Ostrye
Scott Samuelson
Lee Verbridge
Tel: (207) 333-6940
Fax: (207) 333-6944

Technology Name and Model Number:

M400 M550 M750 M1200 M1500 M3000

Technology Type:

Recirculating Biological Trickling Filter

Approval:

TSS and BOD Removal - Class II

Certification Date:

Issued: 9-25-2003
Expires: 9-25-2005
Renewed: 3-26-2009
Revised: 1-13-2010
Expires: 3-26-2011

CERTIFICATION

The RI Department of Environmental Management (RIDEM) has reviewed the Class II Alternative/Experimental Technology renewal application for the SeptiTech enhanced recirculating trickling filter, hereafter referred to as the "System". The System's treatment process involves a mixed liquor which passes through a patented media of polystyrene foam beads. The beads repel moisture, not allowing the microbes to strongly attach, such that they stay entrained in the wastewater as it flows through the media. The System is designed to be installed after a primary settling tank. A second and separate tank houses the System. The System includes SeptiTech's proprietary Programmable Logic Controller (PLC) available with a telemetry option, which controls timed dosing to a leachfield.

Based on the information contained in the application submitted by SeptiTech, LLC hereafter referred to as the "Vendor", the RIDEM hereby accepts the System for listing on the RIDEM Alternative/Experimental Technology list. Design, installation and operation of the System shall be in accordance with the following terms and conditions:

I. General Requirements

1. This Class II approval shall be effective until its expiration date.
2. If the Vendor wishes to extend this Class II approval beyond its expiration date, he/she shall apply for and obtain a renewal of this approval. The Vendor shall submit a renewal application along with the appropriate renewal fee as denoted in the Fee Schedule of the OWTS Rules at least 90 days in advance of the expiration date of the approval.

3. The Vendor shall notify the RIDEM at least 30 days prior to any proposed transfer of ownership of the System technology. Notification shall include the name and address of the new owner and a written agreement between the existing and new owner specifying a date for transfer of ownership, responsibility, and liability for the technology. All provisions of this approval shall be applicable to any new owners.
4. The Vendor shall provide any purchaser of the System with a copy of this approval prior to the sale of the System.

II. Design Requirements

1. Polyethylene tanks may be used for the System in accordance with applicable provisions in the OWTS Rules.
2. Each system installation shall meet all other applicable OWTS Rules and receive prior approval by the RIDEM pursuant to the Rules in effect at the time of application.
3. a.) Designs incorporating this System shall be allowed a 50% reduction from the required leachfield size for a conventional leachfield or alternative leachfield with a RIDEM Class I “component” approval. This is based on the ability of the System to remove BOD and Suspended Solids as demonstrated by data submitted by the Vendor.

b.) Each applicant proposing a reduced leachfield size shall demonstrate that sufficient land area is available on the lot to permit installation of a full sized leachfield. The full size leachfield shall meet all applicable OWTS setback requirements. (This is not a requirement that an entire “replacement” field be available, only that enough additional land area be available to increase the “reduced” leachfield area to standard size if ever necessary.)
4. In the Salt Pond and Narrow River Critical Resource Areas the System may utilize a conventional or approved alternative leachfield, in accordance with RIDEM policy.
5. Effluent from the System may be discharged to a pressure-dosed shallow-narrow drainfield provided the latter complies with related guidance and/or Rules issued by the RIDEM. A one-foot reduction in the required separation distance to the seasonal high groundwater table required in the OWTS Rules is allowed when the System is used in conjunction with the pressure-dosed shallow-narrow drainfield.
6. No system where design flow exceeds 900 gpd shall utilize a bottomless sand filter (BSF) as the final means of disposal without technical studies to address the possible adverse effects as indicated in the BSF guidance document issued by the RIDEM.
7. Effluent from the System must be capable of meeting the following effluent limits:
Biological Oxygen Demand (BOD) – 20 mg/l, Total Suspended Solids (TSS) – 20 mg/l.
8. All tanks and dosing and pumping chambers must be tested for water tightness at the normal operating level. Riser assemblies must be field tested for watertightness.
9. This system is not recognized as a nitrogen reducing system. This system is not recognized as a pathogen or phosphorus reducing system.

10. Mechanical processes are key to the performance of the System. To ensure Owner/Operator compliance with the System's operating requirements, all Systems shall be equipped with audible and visual alarms to indicate mechanical failure or power interruption to the System. These indicators shall be mounted on a NEMA approved cabinet on the exterior of the building. All systems shall be designed with a PLC for which a strip-heater is required. In commercial applications the RIDEM may allow alarms to be installed inside provided the RIDEM has access to the building at all reasonable times.
11. All piping shall be SCH 40 PVC or equivalent.
12. Training
 - a.) The Vendor shall hold, or cause to be held, two training seminars for RIDEM Licensed Designers and Installers and Service Providers before the expiration or renewal of this certification. The first shall be held within the first six (6) months of the date of this certification.
 - b.) The Vendor shall notify the RIDEM of the date and time of each training seminar and submit to the Department a detailed agenda, material to be distributed to attendees and a list of presenters specifying their credentials at least six weeks in advance of the date of the scheduled seminar. Any public announcement or solicitations must be coordinated with this office.
 - c.) Following the seminar, the Vendor is required to provide each attendee who successfully completes the training with documentation of having done so.
 - d.) Following each training seminar, a list of those who have satisfactorily completed the training shall be submitted to the RIDEM; electronic submission is encouraged.

III. Operation and Maintenance Requirements

1. RIDEM approved operating instructions shall be provided to the Owner/Operator.
2. Systems shall be maintained according to the manufacturer's specifications.
3. For seasonally used Systems, the Vendor shall provide specifications for protection of the System and the biological component from freezing, and conditions under which power to the System may be turned off.
4. The Vendor must offer for sale a minimum two-year service contract that must include, as an option, service to all A/E components of the treatment train in addition to the System.
5. The Applicant/Owner shall record copies of the OWTS construction permit issued by RIDEM and the initially executed O&M contract(s) for the System, and all other A/E components in the treatment train, in the land evidence records of the applicable city or town prior to the RIDEM issuing the Certificate of Conformance for each installation.
6.
 - a.) The owner shall retain a public or private maintenance entity (Service provider) for the life of the system and all other A/E components of the treatment train.
 - b.) The trained service provider shall have the capability of performing maintenance on the approved leachfield and shall offer to perform such maintenance if requested by the owner.

- c.) Properly trained homeowners may perform O&M on their own systems; training must have been received for all components of the treatment train on which a homeowner wishes to perform O&M.
7. No O&M agreement with a maintenance entity shall be for less than two years.
 8. The Service provider or homeowner providing O&M on his or her own system per number 6. c.) above shall:
 - a.) Receive training as approved by the Vendor
 - b.) Be available to perform required preventative maintenance, perform repairs, respond to System emergency situations and conduct performance monitoring when required by this certification or by permit.
 - c.) Perform an inspection of the treatment System at least quarterly for design flows of 2,000 gpd or more, and at least twice annually for smaller design flows.
 - d.) Report to the Vendor, all inspections and maintenance calls conducted and all problems or failures observed with a summary of the cause and remedial measures taken.
 - e.) Homeowners performing maintenance on their own systems must report to the RIDEM all inspections and maintenance activities conducted and all problems or failures observed with a summary of the cause and remedial measures taken.
 9. The Vendor shall provide to the RIDEM a list of trained Service Providers as part of the annual reporting requirement. The names of at least two qualified Service Providers shall be maintained on the list at all times. Properly trained homeowners authorized to perform O & M on their own systems shall be included on this list.
 10. The Vendor shall have an inventory of system parts available locally.

IV. Reporting Requirements

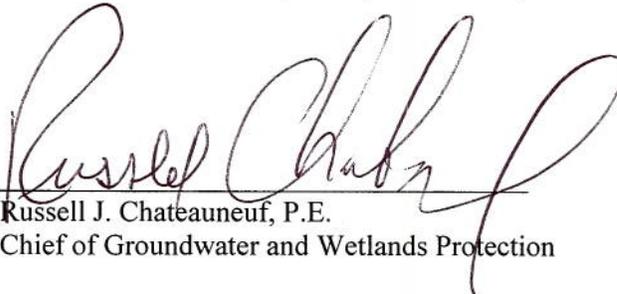
1. The Vendor shall submit an annual report to the RIDEM by the anniversary of this approval each year, containing the following information for the previous twelve-month period: The number of systems installed in RI. The address of each installation. The owner's name and RIDEM permit number. The number and dates of all inspections including maintenance calls conducted. All problems and failures experienced with a summary of each cause and remedial action taken.
2. The Vendor shall monitor the treatment efficiency of a minimum of three residential installations of the System in Rhode Island that are occupied by a minimum of four people year round. Grab samples shall be taken from the d-box or pump chamber prior to the leachfield. Each of the systems shall be monitored at least four times a year for a minimum of two years; the RIDEM may require extension of this requirement. Two samples shall be taken in the summer months and two in the winter months. Seasonally used Systems shall be monitored once at the beginning and once at the end of the season during which they are used. At a minimum the following parameters shall be monitored: BOD5, TSS, pH, TKN, nitrate, nitrite, ammonia, alkalinity and fecal coliform. This information shall be included in the annual report submitted to the RIDEM as directed by item 1 above. Sampling requirements may be extended or sampling frequency for the System may be reduced at the discretion of the Department after two years' data have been evaluated.

If, at any time, the information gathered from the monitoring indicates that a System's performance is not in compliance with the terms of this certification, measures shall be taken to correct the System's treatment of the wastewater, and additional sampling and analysis shall be conducted. The System shall be re-sampled as necessary until the System is operating in compliance with this certification. The Vendor shall submit to the RIDEM an explanation of the measures taken to correct the System's performance and the laboratory analyses for each sampling event. This information shall be submitted as soon as it is available after each re-sampling event.

3. The Vendor shall report any termination or non-renewal of maintenance agreements to the RIDEM and to the local Wastewater Management Authority if one exists in that area.

V. Rights of the RIDEM

1. The RIDEM may suspend, modify or revoke this certification for cause, including but not limited to: Non-compliance with any of the provisions or conditions of this certification, misrepresentation or failure to fully disclose all relevant data, or receipt of new information indicating the use of the System is contrary to the public interest, public health or the environment.
2. This certification does not represent an endorsement of the System by the RIDEM. This certification may be reproduced only in its entirety.



Russell J. Chateauf, P.E.
Chief of Groundwater and Wetlands Protection

Issuance Date: _____

1/13/10