



RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

235 Promenade Street, Providence, RI 02908-5767

TDD 401-222-4462

Alternative/Experimental OWTS Technology Program

Vendor Information:

Aqua Test, Inc.
P.O. Box 1116
Black Diamond, WA 98010
28620 Maple Valley Rd SE
Maple Valley, WA 98038

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Technology Name:

NIBBLER[®] Wastewater Treatment Process

Models:

NIBBLER[®] SBP (square pod)
NIBBLER[®] CBP (cylindrical pod)

Technology Type:

Alternative Technology – Class Two

Certification Dates:

Issued: April 25, 2013
Expires: April 25, 2018

Local Contacts:

Atlantic Solutions, Ltd
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CERTIFICATION

The RIDEM has reviewed the Class Two Alternative/Experimental (A/E) Technology Application for the NIBBLER[®] Wastewater Treatment Process, hereafter referred to as the System. The System uses an aerobic fixed film treatment process within an aerated tank and is designed based on an organic load per NIBBLER[®] pod for removal of BOD, TSS and FOG, to reduce high strength commercial or residential wastewater to levels comparable to that of residential strength septic tank effluent.

The NIBBLER[®] SBP includes one or more media pods within one or more NIBBLER[®] SBP tanks (adapted with NIBBLER[®] access panels by local precast concrete septic tank suppliers). The System is comprised of a septic tank, grease tank (or comingle tank where a single plumbing stub is available) and a surge tank, which time doses the NIBBLER[®] based on average daily flow. The NIBBLER[®] is followed by a clarifier tank, a pump tank, and then a leachfield or an advanced treatment system. Multiple NIBBLER[®] SBP tanks may be installed in parallel following a splitter basin.

The NIBBLER[®] CBP (cylindrical pod) is designed for installation with associated aeration system in existing septic tanks.

Based on information contained in the application submitted by Aqua Test, Inc., hereafter referred to as the Vendor, the RIDEM hereby approves the System's placement on the Alternative/Experimental Technology List. At the design organic loading rate of 0.81 pounds per day BOD per Nibbler pod, the RIDEM recognizes the System as capable of achieving the following guaranteed treatment objectives:

- At operating capacity: BOD5 <150 mg/L, TSS <125 mg/L and FOG <20 mg/L and,
- At peak design flow BOD5 <200 mg/L, TSS <150 mg/L and FOG <25 mg/L.

Design, installation and operation of the System shall be in accordance with the following terms and conditions: Design Requirements

1. The System is approved for any use and design flow.
2. The System must be designed in accordance with the Vendor's RIDEM-approved design manual.
3. A two-compartment septic tank, or two septic tanks in series, may be used; the tank or tanks must conform to the requirements of the OWTS Rules.
4. All designs incorporating NIBBLER[®] components must be reviewed by the Vendor prior to submittal to RIDEM
5. All Systems shall be equipped with a control panel supplied or approved by Aqua Test, Inc.
6. Pumps must be wired to the same circuit as the aerator.
7. System tanks, dosing chambers, pumping chambers, and riser assemblies shall be manufacturer-certified watertight or field-tested and certified watertight using procedures set forth in RIDEM OWTS Rules.
8. Each System installation shall meet all other applicable RIDEM Rules and receive prior approval by the RIDEM pursuant to the Rules in effect at the time of application.
9. Design and installation shall be in strict conformance with the approved System Design and Installation Manual and shall only be performed by appropriate RIDEM licensed persons who have received training and who have been authorized in writing by the Vendor to design or install the System.

I. General Certification Requirements

1. The Vendor shall submit to the RIDEM, a guidance document detailing all design, installation, operation and maintenance requirements for the System. Once this guidance document has been approved, the System shall be placed on the RIDEM's list of approved Alternative/Experimental Technologies and training may be scheduled.
2. The Vendor is responsible for making the RIDEM approved design, installation and operation and maintenance guidance available to the public.
3. Training
 - a) The Vendor shall hold two training seminars for RIDEM Licensed Designers, 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 RIDEM 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. Please consult the RIDEM-issued requirements for Vendors' technology training available on the RIDEM website in the A/E technology section.
4. The Vendor shall make available to the public, a means of identifying the individuals, by name and category (designer, installer, professional service provider), who have received training and are authorized in writing by the Vendor to design, install or maintain the System.

5. The Vendor shall notify the RIDEM in writing of any changes to the System, including its discontinuation. Modifications deemed by the RIDEM to be substantial, may require re-application to the alternative/experimental program.
6. This Class Two approval shall be effective until the expiration date of this Certification.
7. If the Vendor wishes to extend this Class Two Certification beyond its expiration date, they shall apply for and obtain a renewal of this approval. The Vendor shall submit a renewal application in accordance with the RIDEM Onsite Wastewater Treatment System Rules.
8. 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.
9. The Vendor shall provide any purchaser of the System with a copy of this approval Certification prior to the sale of the System.

II. Operation and Maintenance (O&M) Requirements

1. The RIDEM approved O&M Manual shall be provided to the Owner/Operator of each System.
2. 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.
3. Vendor 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.
4.
 - 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; a Vendor-authorized homeowner functioning as Service Provider is exempt from this for the System and any components of the treatment train for which the homeowner is providing service.
 - b.) No agreement with a maintenance entity shall be for less than two years.
 - c.) Service Providers must be trained and authorized in writing by the appropriate Vendor to perform O&M on the System and all other A/E components of the treatment train for which they will be performing O&M.
 - d.) The Service Provider or homeowner providing O&M on his or her own System shall:
 - (1) Receive training as approved by the Vendor.
 - (2) 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.
 - (3) Perform an inspection of the treatment System at least twice annually.
 - (4) 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.
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. 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.

7. The Vendor shall provide to the RIDEM within six months of the issuance of this Certification, a list of trained Service Providers. At least two qualified independent professional Service Providers shall be maintained on the list at all times. A Service Provider who subcontracts service for the same technology, shall not be considered meeting this requirement. The list of Service Providers must be provided to RIDEM as part of the annual reporting requirement. Homeowners authorized to perform O&M on their own Systems shall be included on this list provided to the RIDEM, with the System address and associated permit number.
8. A list of trained professional Service Providers shall be made available to the public.
9. The Vendor shall have an inventory of System parts available locally.

III. Reporting Requirements

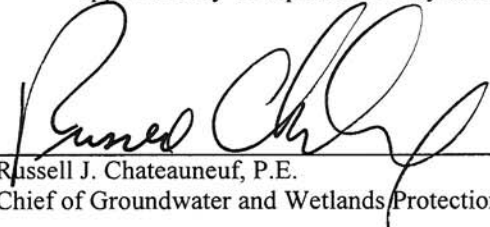
1. The Vendor shall submit an annual report to the RIDEM by the anniversary of this Certification each year, to include the following information for the preceding 12-months:
 - a) The number of Systems installed in Rhode Island since the last report,
 - b) The address of each installation, the name of the owner and the RIDEM permit number,
 - c) For each System, the number of inspections/maintenance calls conducted and a brief comment regarding activities performed and observations,
 - d) All known problems or failures experienced with a brief summary of the cause and remedial measures taken.

Electronic submission is preferred.

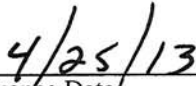
2. The Service Provider shall report any termination or non-renewal of maintenance agreements to the RIDEM, the Vendor and to the local wastewater management authority should one exist for that area. Electronic notification is preferred.
3. For a period of three years the Vendor shall report the results of Vendor-required effluent sampling to the RIDEM. Electronic submission is preferred.

IV. 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 conditions or provisions of this approval, misrepresentation or failure to disclose fully all relevant data, or receipt of new information indicating that the use of the System is contrary to the public interest, public health or the environment.
2. This approval does not represent an endorsement of the System by the RIDEM. This letter of approval may be reproduced only in its entirety.



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



Issuance Date