RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Innovative/Alternative ISDS Technology Program

Vendor Information:
AquaPoint, Inc.
241 Duchaime Blvd.
P.O. Box 50120
New Bedford, MA 027452

Contact:
Chuck Resevick
(508) 998-7577 Ext 12

Technology Name:
Bioclere - 16, 24, 30 and 36 Series

Technology Type:
Nitrogen –Reducing and Aerobic Wastewater Treatment System
Class II

Certification Date:
Issued: February 21, 2007
Expires: February 21, 2009

CERTIFICATION

The Department of Environmental Management (DEM) has reviewed the Class II Innovative/ Alternative Technology application for the Bioclere aerobic wastewater treatment system, hereafter referred to as the "System". The System is essentially a modified trickling filter positioned over a clarifier. Effluent from the septic tank enters the System and is pumped up to the top of the insulated unit where it is evenly distributed over the surface of the filter media. Biochemical oxidation takes place as the water trickles through the filter and over the biological film that grows on the surface of these randomly packed pieces of PVC plastic. Oxygen is supplied to the system through a small axial fan located in the top of the housing.

Based upon information contained in the application submitted by AquaPoint, Inc., hereafter referred to as the "Vendor", the Department hereby accepts the System for listing on the RI DEM Innovative or Alternative Technology List. This certification replaces the existing approval. Design and installation of the System shall be in accordance with the following terms and conditions:

I. Design Requirements

A. General

1. Septic systems utilizing this innovative/alternative System shall be allowed a 45% reduction from the required leachfield size for conventional systems. This reduction is based upon the ability of the System to remove BOD and suspended solids as demonstrated by the data presented in the Vendor's submittal. No reduction in leachfield size shall be allowed for non-conventional leachfields (i.e. those not included in SD 11.05, SD 12.00 or SD 13.00 of the current ISDS regulations).

2. Each applicant proposing a reduced leachfield area shall demonstrate that sufficient land area is available on the lot to permit installation of a full size leachfield. The full size leachfield shall meet all ISDS regulatory 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.)

3. In addition to other approved leachfield options allowed by regulation, the effluent from the System may be discharged to a pressure-dosed shallow-narrow drainfield provided the latter is designed in accordance with the Vendor's Design and Installation Manual and complies with related guidance and regulations issued by the Department. A one-foot reduction in the required design groundwater separation distance is allowed when the System is used in conjunction with a pressure-dosed shallow-narrow drainfield.

4. In any critical resource area associated with the south shore coastal ponds or Narrow River, the System shall be required to employ a pressure dosed shallow-narrow drainfield or bottomless sand filter. No system where design flow exceeds 900 gpd shall employ the use of a 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 Department.

5. Effluent from the system must be capable of meeting Class 1 National Sanitation Foundation (NSF) Standard 40.

6. System tanks, dosing chambers, pumping chambers, and riser assemblies must be field-tested for water tightness.

7. Mechanical aeration is key to the performance of the System. To ensure Owner/Operator compliance with the System's operating requirements, all Systems shall be equipped with an hour meter and audible and visual alarms to indicate power interruption to the System. These indicators shall be mounted on a NEMA approved cabinet on the exterior of the building. In commercial applications the Department may allow alarms to be installed inside provided the Department has access to the building at all reasonable times.

8. Each System installation shall meet all other applicable ISDS standards and receive prior approval by the Department pursuant to the regulations in effect at the time of application.

9. Design and installation shall be in strict conformance with the approved System design and installation manual. The design shall be prepared by a Rhode Island Licensed Designer and the installation shall be performed by a Rhode Island Licensed Installer each of whom has received training and is authorized in writing by the Vendor to perform the applicable work on the System.

10. All commercial System designs with design flows of 2,000 gpd or more shall be reviewed by and deemed acceptable to the Vendor prior to submittal to the Department.

11. Training

a.) The Vendor shall hold two training seminars for Rhode Island Licensed Designers and Installers and homeowners who wish to be trained before the expiration of this certification.
b.) The first shall be held within the first six (6) months of the date of this certification.
c.) The Vendor shall submit to the Department a detailed agenda, material to be distributed to attendees and a list of presenters and their credentials prior to offering a training seminar.
d.) Following the seminar, the Vendor is required to provide each attendee who successfully completes the training with documentation of having done so.
e.) Following each training seminar, a list of those who have satisfactorily completed the training shall be submitted to the Department.

B. Nitrogen Reduction Provisions

1. The system is recognized as nitrogen reducing when configured in a recycle mode. Total nitrogen concentration in the effluent as measured at the D-Box prior to the drainfield shall not exceed 19 mg/l.

2. The System is recognized for nitrogen reduction for all uses and design flows, with the following provisions for proposed use at schools and for other uses which generate high strength wastewater, including restaurants.

(a) The application shall be reviewed on a case-by-case basis by the Department, for acceptability.
(b) At a minimum, the Department will require sampling and testing of the wastewater (or an estimate / projection of wastewater characteristics for applications for new construction), an assessment by the vendor of the wastewater characteristics, and a certification by the vendor that the system as designed can meet treatment objectives.

II. General Requirements

1. This Class II approval shall be effective until February 21, 2009.

2. If the Vendor wishes to extend this Class II Certification beyond its expiration date, they shall apply for and obtain a renewal of this certification. The Vendor shall submit a renewal application along with the appropriate renewal fee as denoted in (SD 23.00 (j) 4) at least 90 days in advance of the expiration date of the certification.

3. The Vendor shall notify the Department 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 letter prior to the sale of the System.

III. Operation and Maintenance Requirements

1. Detailed operating instructions shall be provided to the Owner/Operator.

2. Systems shall be maintained according to the Vendor'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. Operation and maintenance requirements for the System and all other I/A components in the treatment train shall be recorded in the land evidence records of the applicable city or town prior to the Department issuing the Certificate of Conformance for the installation.

5. The Vendor must offer for sale a minimum two-year service contract that must include, as an option, service to all I/A components of the treatment train in addition to the System.

6. A public or private maintenance entity (O & M provider) shall be retained continuously for the life of the System and all other I/A components of the treatment train. The O & M provider shall be available to perform needed preventative maintenance, perform repairs, respond to emergency calls and conduct performance monitoring when required by this certification or by permit. Such entity shall 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. The O & M provider shall 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. No agreement with a maintenance entity shall be for less than two years.

7. The Vendor shall provide to the Department within six months of the issuance of this certification, a list of trained O & M providers. The names of at least two qualified service provides shall be maintained on the list at all times. Properly trained homeowners may perform operation and maintenance on their own Systems.

8. The Vendor shall have an inventory of System replacement parts available locally.

IV. Reporting Requirements

1. The Vendor shall submit an annual report to the Department by November 30 of each year containing the following information for the previous 12 month period ending September 30 of the year: the number of systems installed in RI, the address of each installation and name of the owner and permit number, the number of inspections/ maintenance calls conducted, and all known problems or failures experienced, with a brief summary of the cause and remedial measures taken.

2. For Systems serving single-family homes, the Vendor shall monitor the treatment efficiency of a minimum of three representative Systems installed in Rhode Island after

the date of this certification. A representative system shall be defined as a system serving a house that is 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 period of two years. Two samples shall be taken in the summer months and two in the winter months. 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 Department by November 30 of each year.

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 O & M provider shall submit to the Department and to the Vendor, 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; electronic submission is encouraged.

3. For any System with a design flow of 2,000 gpd or more, the O & M provider shall monitor the treatment efficiency of the system. Grab samples shall be taken from the d-box or pump chamber prior to the leachfield and water use since the last sampling event shall be recorded. The System shall be monitored at least four times a year for a period of two years. Two samples shall be taken in the summer months and two in the winter months. At a minimum the following parameters shall be monitored: BOD5, TSS, pH, TKN, nitrate, nitrite, ammonia, alkalinity and fecal coliform. This information shall be provided to the Department and to the Vendor. The Vendor shall include this information in the annual report submitted to the Department by November 30 of every year.

   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 O & M provider shall submit to the Department and to the Vendor, 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.

4. The O & M provider shall report any termination or non-renewal of maintenance agreements to the Department, the Vendor and to the local wastewater management authority should one exist for that area.

V. Rights of the Department

1. The Department 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 Department. This letter of approval may be reproduced only in its entirety.

Issuance Date: 2/21/07

Russell J. Chateauneuf, P.E.
Chief of Permitting