



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

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JAN 7 2011

RENEWAL OF APPROVAL FOR REMEDIAL USE

Pursuant to Title 5, 310 CMR 15.000

Name and Address of Applicant:

Presby Environmental, Inc.
143 Airport Road
Whitefield, NH 03598

Trade name of technology and model: **Presby Enviro-Septic Leaching System** (hereinafter called the "System"). The "Massachusetts Enviro-Septic® Wastewater Treatment System Quick Reference Guide" including schematic drawings of typical Systems, a technology checklist, and a System Installation Form are part of this Certification.

Transmittal Number: X233395
Date of Issuance: August 16, 2010, revised January 7, 2011
Date of Expiration: August 16, 2015

Authority for Issuance

Pursuant to Title 5 of the State Environmental Code, 310 CMR 15.000, the Department of Environmental Protection hereby issues this Approval to: Presby Environmental, Inc., 143 Airport Road, Whitefield, NH 03598 (hereinafter "the Company"), approving the System described herein for Remedial Use in the Commonwealth of Massachusetts. Sale and use of the System are conditioned on compliance by the Company and the System owner with the terms and conditions set forth below. Any noncompliance with the terms or conditions of this Approval constitutes a violation of 310 CMR 15.000.

David Ferris, Director
Wastewater Management Program
Bureau of Resource Protection

January 7, 2011

Date

I. Purpose

1. This Remedial Use approval authorizes, with the necessary permits and approvals required by 310 CMR 15.000, the use and installation of the System in Massachusetts.
2. The System may only be installed where conditions meet the criteria of *Approval for Remedial Use*, 310 CMR 15.284(2). The System is an alternative system approved in accordance with 310 CMR 15.280 through 15.289 and is used to treat and dispose of wastewater.
3. This Approval for Remedial Use allows the use of the System where the local approving authority finds that the System is for upgrade of a failed, failing or nonconforming system. The Title 5 design flow for the facility must be less than 10,000 gallons per day.

II. Design and Construction Standards

1. The System is a subsurface unit that replaces a soil absorption system (SAS) designed in accordance with 310 CMR 15.000. The System consists of an 11 5/8-inch diameter corrugated, high-density plastic pipe with a 9.5-inch interior diameter and a standard length per unit of 10 feet. The exterior of the pipe has ridges on the peak of each corrugation. The pipe is perforated with eight holes equally distributed around its inner circumference. Each hole has a plastic skimmer extending inwards. The exterior of the pipe shall have a minimum of two layers of material. The inner layer shall be a thick layer of coarse, randomly oriented polypropylene fibers. The outer layer shall be a non-woven geo-textile polypropylene fabric. Connectors designed to connect pipe units together are required. The System also includes a minimum six inches of sand, specified as concrete sand meeting ASTM C-33 (also called 'System sand'), surrounding the pipe on all sides by a minimum of six inches.
2. Depth to the estimated seasonal high groundwater elevation shall be measured from the bottom of the System sand below the Enviro-Septic Leaching System.
3. The System sand shall meet ASTM C-33 specifications.
4. Systems shall be installed with differential venting for aeration and inspection at end of each run of pipe, section or serial bed and whenever the System is installed under impervious surfaces.
5. The System shall be designed and installed using distribution boxes allowing for inspection access. The pipe between the distribution box and the System shall be installed at a minimum slope of 0.02 feet/foot.
6. The System shall include an inspection port installed within the bed or field as required by 310 CMR 15.240(13).
7. Serial distribution laterals shall be limited to no more than 500 gpd and must be laid level. Multi-level systems shall not be allowed.

8. The System shall be installed in a bed or field configuration, as defined in 310 CMR 15.252. The effective leaching area shall be the bottom area (length times width) of the field or bed as presented in the Company's "Massachusetts Enviro-Septic® Wastewater Treatment System Quick Reference Guide".
9. Effluent loading rates adjusted to reduce the soil absorption system by 40 percent shall be in accordance with 310 CMR 15.242. No System shall be installed with a leaching area of less than 400 square feet.
10. Systems with design flows of 2000 gpd or greater shall not require pressure distribution in accordance with 310 CMR 15.231.
11. The System may be used in soils with a percolation rate of up to 90 minutes per inch (MPI). For soils with a percolation rate of 60 to 90 MPI, the effluent loading rate shall be 0.15 GPD/SF

III. Allowable Soil Absorption System Design

1. The following reductions are allowable for Soil Absorption Systems (SAS) when designing the System.
 - A. The approving authority may allow a reduction in the required separation between the bottom of the SAS and the high groundwater elevation of up to two feet. This provides a minimum separation of two feet (in soils with a recorded percolation rate of more than two minutes per inch) or a three feet (in soils with a recorded percolation rate of two minutes or less per inch); or
 - B. The approving authority may allow a reduction in the required four feet of naturally occurring pervious material in an area with no less than two feet of naturally occurring pervious material, provided that it has been demonstrated that the four foot requirement cannot be met anywhere on the site.

If a remedial System needs either of the allowable reductions listed above, then the reductions must first be approved by the local approving authority and then approved by the Department pursuant to 310 CMR 15.284 through filing a BRPWP 64c permit application.

2. Additional reductions allowable for Soil Absorption System (SAS) when designing the System:
 - A. When using 1A, or 1B above for the System where full compliance with 310 CMR 15.000 is not feasible, the local approving authority may consider granting local upgrade approvals in accordance with the provisions of 310 CMR 15.401 – 15.405.

For example:

 - i. When considering 1B above, an applicant may request from the local approving authority and the local approving authority may consider a local upgrade approval for reduction to estimated high groundwater in accordance with 310 CMR 15.405(1)(h).

- ii. The local approving authority may not consider granting a local upgrade approval for a further reduction of the SAS in accordance with 310 CMR 15.405(1)(c).
 - iii. When an applicant chooses a reduction in the naturally occurring soil with the use of the System, a local upgrade approval may be considered for a reduction in groundwater separation in accordance with 310 CMR 15.405(1)(h).
- B. If any remedial system is still not able to achieve full compliance with all of the minimum set back distances in 310 CMR 15.211, even taking into account provisions for local upgrade approval in accordance with the provisions of 310 CMR 15.401 – 15.405 the applicant must obtain variance(s) from the approving authority and then approval from the Department pursuant to 310 CMR 15.410 through filing a BRPWP 59c permit application.

IV. General Conditions

The following conditions shall apply to Systems for Remedial Use pursuant to 310 CMR 15.284:

1. The provisions of 310 CMR 15.000 are applicable to the design, installation, use and operation of a system utilizing an approved or certified alternative technology, except those provisions that specifically have been varied by the conditions of this Approval.
2. All plans and specifications shall be designed in accordance with 310 CMR 15.220.
3. Monitoring and inspection of the System shall be performed in accordance this approval. It shall be a violation of 310 CMR 15.000 to omit from a report or falsify any System monitoring results or data collected pursuant to an approved testing plan.
4. The facility served by an alternative system and the System itself shall be open to inspection by the Department and the Local Approving Authority at all reasonable times.
5. The Department and/or the Local Approving Authority may require the owner or operator of the System to cease operation of the System and/or to take any other action necessary to protect public health, safety, welfare and the environment.
6. The owner or operator shall provide written notice to any new owner or operator that the System is an alternative system. Such notice shall include notice of the conditions of this approval applicable to the System and its owner.
7. The System owner shall maintain an operation and maintenance contract with a Massachusetts approved Title 5 System Inspector (approved per 310 CMR 15.340) and has received training by the Company to operate and maintain the System in accordance with the Department's written approval.
8. The Department has not determined that the performance of the System will provide a level of protection to public health and safety and the environment that is at least equivalent to that of a sewer system. No System shall be installed, upgraded or expanded, if it is feasible to connect the facility to a sanitary sewer, unless as allowed by 310 CMR 15.004. When a sanitary sewer connection becomes feasible, the facility served by the System shall be connected to the sewer,

within 60 days of such feasibility, and the System shall be abandoned in compliance with 310 CMR 15.354, unless a later time is allowed, in writing, by the approving authority.

V. Conditions Applicable to the System Owner

1. This Approval shall be binding on the System Owner and on its agents, contractors, successors, and assigns. Violation of the terms and conditions of this Approval by any of the foregoing persons or entities, respectively, shall constitute violation of this Approval by the System Owner unless the Department determines otherwise.
2. The System Owner shall obtain all necessary permits and approvals required by 310 CMR 15.000 prior to the installation and use of the System in Massachusetts.
3. The System is approved for the treatment and disposal of sanitary sewage only. Any wastes that are non-sanitary sewage generated or used at the facility served by the System shall not be introduced into the System and shall be lawfully disposed.
4. Prior to obtaining a Certificate of Compliance for installation of a new or upgraded system, the system owner shall record in the chain of title for the property served by the alternative system in the Registry of Deeds or Land Registration Office, as applicable, a Notice disclosing both the existence of the alternative on-site system and the Department's general use certification of the system technology. As proof of recordation, the System Owner shall submit the following to the Local Approving Authority: (i) a certified Registry copy of the Notice bearing the book and page/or document number; and (ii) if the property is unregistered land, a Registry copy of the System Owner's deed to the property, bearing a marginal reference on the System Owner's deed to the property. The Notice to be recorded shall be in the form of the Notice provided by the Department.
5. The System Owner shall at all times have the installed System properly operated and maintained in accordance with the most recent O&M provisions of this Approval for the alternative technology, and in accordance with any additional requirements of the Approving Authority.
6. The System owner shall maintain an operation and maintenance contract with a Massachusetts approved Title 5 System Inspector trained by the Company to operate, inspect and maintain the System in accordance with the Department's approval.
7. The System owner shall have the System inspected annually and shall submit the results of that inspection on a technology inspection checklist form to the local approving authority and the Company. The inspection form can be found at <http://www.mass.gov/dep/water/wastewater/iatechs.htm#general>.
8. The System owner shall furnish the Department any information that the Department requests regarding the operation and performance of the System, within 21 days of the date of receipt of that request.
9. No System owner shall authorize or allow the installation of the System other than by a person trained by the Company to install the System.

10. Prior to transferring any or all interest in the property served by the System, or any portion of the property, including any possessory interest, the System owner shall provide written notice of all conditions contained in this Approval to the transferee(s). Any and all instruments of transfer and any leases or rental agreements shall include as an exhibit attached thereto and made a part thereof a copy of this Approval for the System. The System owner shall send a copy of such written notification(s) to the local approving authority within 10 days of such notice being given.

VI. Conditions Applicable to the Company

1. This Approval shall be binding on the Company and its officers, employees, agents, contractors, successors, and assigns. Violation of the terms and conditions of this Approval by any of the foregoing persons or entities, respectively, shall constitute violation of this Approval by the Company unless the Department determines otherwise.
2. The Approval shall only apply to model units with the same model name or designations specified in this approval and meet the same specifications, operating requirements, and plans, as provided by the manufacturer at the time of the application. Any proposed modifications of the units shall be subject to the review of the Department for coverage under the Approval.
3. The Company shall include copies of the Approval with each System that is sold. In any contract executed by the Company for distribution or re-sale of the System, the Company shall require all vendors, distributors, and resellers to provide each purchaser of the System with copies of the Approval.
4. The Company shall make available, in printed or electronic format, the approved System design, installation and operation manual(s) and any approved updates associated with this technology Approval, to the System Owners, Operators, Designers, Installers, vendors, resellers, and distributors of the System. The Company shall notify the Department of any changes to the O&M manual(s) or Quick Reference Guide with reasons for each change, at least 30 days prior to issuance.
5. The Company shall notify all System Owners, resellers, and distributors of changes to the Approval within 60 days of issuance by the Department.
6. The Company shall notify the Department's Director of the Wastewater Management Program at least 30 days in advance of the proposed transfer of ownership of the Technology for which the Approval is issued. Said notification shall include the name and address of the proposed owner containing a specific date of transfer of ownership, responsibility, coverage and liability between them. All provisions of the Approval applicable to the Company shall be applicable to successors and assigns of the Company, unless the Department determines otherwise. In any contract executed by the Company for distribution or re-sale of the System, the Company shall require the distributor or re-seller to provide each purchaser of the System with copies of this Approval and the manual(s) described in Section VI (4).

7. The Company shall furnish the Department any information that the Department requests regarding the Technology within 21 days of the date of receipt of that request.
8. If the Company wishes to continue the Approval after its expiration date, the Company shall apply for and obtain a renewal of the Approval. The Company shall submit a renewal application at least 180 days before the expiration date of the Approval, unless written permission for a later date has been granted in writing by the Department. Upon receipt of a timely and complete renewal application, the Approval shall continue in force until the Department has acted on the renewal application.
9. By February 15th of each year, the Company shall submit a report to the Department, signed by a corporate officer, general partner or Company owner that contains information on the approved technology for the previous calendar year. The report shall: identify the specific technology approval the annual report is for, provide the number of units of the System sold for use in Massachusetts including the installation date and date of start-up during the previous year; include the address of each installed System, the owner's name and address, the type of use (e.g. residential, commercial, school, institutional) and the design flow; and for all Systems installed since the date of issuance of the original Approval for this technology, all known failures, malfunctions, and corrective actions taken and the address of each such event. The Company must maintain copies of all completed inspection forms for possible audit for at least three years.
10. The Company shall institute and maintain a training program in the proper design, installation and inspection techniques of its System and provide a training course at least annually for prospective designers, installers and inspectors. The Company shall certify that installers and inspectors have completed the Company's training class, maintain a list of certified installers and inspectors, submit a copy to the Department, and update the list annually. Updated lists shall be forwarded to the Department, preferably with the annual report submittal.
11. The Company shall furnish the Department any information that the Department requests regarding the System, within 21 days of the receipt of that request.
12. The Company shall comply with 310 CMR 15.000 and all Department policies and guidance that apply and as they may be amended from time to time.
13. If the Company wishes to continue this Approval after its expiration date, the Company shall apply for and obtain a renewal of this Approval. The Company shall submit a renewal application at least 180 days before the expiration date of this Approval, unless written permission for a later date has been granted in writing by the Department. This approval shall continue in force until the Department has acted on the renewal application.

VII. Conditions Applicable to Installers of the System

1. Each Installer shall install the System in accordance with Company training on the installation of the System and the conditions of this Certification.

2. No Installer shall install the System unless the Installer has been trained by the Company on installation of the System or the installation is overseen by a Company representative(s).
3. Installers shall complete the System Installation Form and forward a copy to the Company and the local approving authority.
4. The System installer shall provide the System owner and the local approving authority with a bill of lading certifying that the sand fill meets ASTM C-33.

VIII. Reporting

1. All notices and documents required to be submitted to the Department by this Approval shall be submitted to:

Director
Wastewater Management Program
Department of Environmental Protection
One Winter Street - 5th floor
Boston, Massachusetts 02108

IX. Rights of the Department

1. The Department may suspend, modify or revoke this Approval for cause, including, but not limited to, non-compliance with the terms of this Approval, non-payment of the annual compliance assurance fee, for obtaining the Approval by misrepresentation or failure to disclose fully all relevant facts or any change in or discovery of conditions that would constitute grounds for discontinuance of the Approval, or as necessary for the protection of public health, safety, welfare or the environment, and as authorized by applicable law. The Department reserves its rights to take any enforcement action authorized by law with respect to this Approval and/or the System against the owner, or operator of the System and/or the Company.

X. Expiration Date

1. Notwithstanding the expiration date of this Certification, any System installed prior to the expiration date of this Certification, and approved, installed and maintained in compliance with this Certification (as it may be modified) and 310 CMR 15.000, may remain in use unless the Department, the local approving authority, or a court requires the System to be modified or removed, or requires discharges to the System to cease.