



COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
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Commissioner

APPROVAL FOR GENERAL USE
Pursuant to Title 5, 310 CMR 15.000

Name and Address of Applicant:

Hoot Aerobic Systems, Inc,
2885 Highway 14 East
Lake Charles, LA 70607

Trade name of technology: H – Series Hoot System H500A, H600A, H750A and H1000A (hereinafter the "System"). Schematic drawings of a typical System and technology checklist are attached as part of this Approval.

Transmittal Number: X225364
Date of Issuance: June 30, 2009
Expiration Date: June 30, 2014

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 for General Use to: Hoot Aerobic Systems, Inc., 2885 Highway 14 East, Lake Charles, LA 70607 (hereinafter "the Company"), approving the System described herein for General Use in the Commonwealth of Massachusetts. Sale and use of the System are conditioned on and subject to 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 Certification constitutes a violation of 310 CMR 15.000.


Glenn Haas, Acting Assistant Commissioner
Bureau of Resource Protection

June 30, 2009
Date

I. Purpose

1. The purpose of this Certification is to allow use of the System in Massachusetts, on a General Use basis to enhance and maintain performance of properly functioning soil absorption System (SAS).
2. With the necessary permits and approvals required by 310 CMR 15.000, this Approval for General Use authorizes the use of the System in Massachusetts.
3. The System is approved for the use at facilities with a maximum design flow of up to 1000 gallons per day (GPD).
4. The System may only be installed on all facilities where a system in full compliance with 310 CMR 15.000 exists on site or will be built and has been approved by the local approving authority, or by DEP if DEP approval is required.

II. Design Standards

1. This System is designed to treat residential strength wastewater from facilities less than 1000gpd. The System consists of a Pre-Treatment tank, Aeration Chamber and the Clarifier Chamber. The Pre-Treatment or Trash Trap, aides in the anaerobic decomposition of the influent by providing a storage area for non-biodegradables which are inadvertently added to the system. This tank functions like a septic tank, providing a space for floatables, to float (mainly things such as fats oils and grease) and a place for things to settle. A reduction of at least 50% of the Total Suspended Solids (TSS) occurs within this tank and approximately 25% of the Biochemical Oxygen Demand (BOD₅). This pre-treatment chamber contains a mid-level, baffled crossover to allow the liquid waste effluent to leave the compartment and enter into the aeration chamber.
2. Aeration Chamber: By means of the Troy Air Blower, oxygen is incorporated into the sewage. This introduction of oxygen is done in such manner as to intimately mix the organics of the sewage with the indigenous bacteria populations in the aeration chamber. Reduction of the organics is accomplished by these organisms. Excess oxygen not needed for the organic decomposition is utilized by nitrifying bacteria to convert ammonia into the more stable form of nitrogen known as Nitrite. Movement of sewage in the aeration chamber causes the activated sludge that settled in the final clarifier to be re-introduced into the aeration chamber. As the solids settle out in the Clarifier.
3. Clarifier: A still chamber located within the Aeration Chamber provides a quiescent zone where clarified effluent rises to the outlet, located 6 inches below the surface of the clarifier. This Chamber holds approximately 12 hours

capacity of effluent which discharge to either an existing soil absorption system (SAS) or to a new SAS designed and installed in accordance with 310 CMR 15.000.

III. General Conditions

1. All provisions of 310 CMR 15.000 are applicable to the use of the System, the system owner and the Company, except those which specifically have been varied by the terms of this Approval.
2. Any required operation and maintenance, monitoring and testing shall be performed in accordance with a Department approved plan. Any required sample analysis shall be conducted by an independent U.S. EPA or DEP approved testing laboratory. It shall be a violation of this Approval to falsify any data collected pursuant to an approved testing plan, to omit any required data or to fail to submit any report required by such plan.
3. The facility served by the System, and the System itself, shall be open to inspection and sampling by the Department and the local approving authority at all reasonable times.
4. In accordance with applicable law, the Department and the local approving authority may require the System owner to cease use of the System and/or to take any other action as it deems necessary to protect public health, safety, welfare or the environment.
5. The Department has not determined that the performance of the System will provide a level of protection to the environment that is at least equivalent to that of a sewer. Accordingly, no new System shall be constructed, and no System shall be upgraded or expanded, if it is feasible to connect the facility to a sanitary sewer, unless allowed pursuant to 310 CMR 15.004
6. Design, installation and operation of the System shall be in strict conformance with the Company's DEP approved plans and specifications and 310 CMR 15.000, subject to this Approval.

IV. Conditions Applicable to the System Owner

1. 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 on-site sewage disposal system and shall be lawfully disposed of.
2. Operation and Maintenance Agreement
 - A. Throughout its life, the System owner shall operate and maintain the system in accordance with the Company and designer's operation and maintenance requirements and this Approval. To ensure proper operation and maintenance (O&M), the System owner shall enter into an O&M agreement. No O&M agreement shall be less than one year.

- B. No System shall be used until an O&M agreement is submitted to the approving authority which:
- i. Provides for the contracting with the Company or its approved operation and maintenance contractor, trained by the Company as provided in Section V(3), to operate the System's specifications and the operation and maintenance requirements specified by the designer and any specified by the Department;
 - ii. Contains procedures for notification to the Department and the local board of health within five days of system failure or alarm event and for corrective measures to be taken immediately;
 - iii. provides the name of an operator, which must be a Massachusetts certified operator if one is required by 257 CMR 2.00 that will operate and monitor the System. The operator must inspect the System at least once a year and anytime there is an alarm event.
4. The System owner shall at all times have the System properly operated and maintained in accordance with this Certification, the designer's operation and maintenance requirements and the company's approved procedures. The System owner shall notify the Department and the local approving authority, in writing, within seven days of a change in the operator.
 5. The System owner shall provide a copy of this Certification, prior to the signing of a purchase and sale agreement for the facility served by the System or any portion thereof, to the proposed new owner
 6. The System owner shall furnish the Department any information that the Department requests regarding the System, within 21 days of the date of receipt of that request .
 7. By September 30th of each year for the previous year, the System owner shall submit to the approving authority all operation, maintenance, and monitoring data collected by the System operator, including an O&M checklist and a technology checklist. This information shall be completed by the System operator for each inspection performed during the previous calendar year. A copy of the technology checklist is attached to this Approval.
 8. Prior to the issuance of a Certificate of Compliance for the system, the System owner shall record and/or register in the appropriate Registry of Deeds and/or Land Registration Office, a Notice disclosing the existence of the alternative system subject to this Approval on the property. If the property subject to the Notice is unregistered land, the Notice shall be marginally referenced on the owner's deed to the property. Within 30 days of recording and/or registering the Notice, 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 owner's deed to the property, bearing the marginal reference.

V. Conditions Applicable to the Company

1. By February 15TH of each year, the Company shall submit to the Department a report, signed by a corporate officer, general partner, or Company owner that contains information on the System for the previous calendar year. The report shall identify all locations where the System was installed in the prior year, state known failures, malfunctions, and corrective actions taken for the System as well as the date and address of each event.
2. The Company shall notify the Department's Director of Wastewater Management Program at least 30 days in advance of any proposed transfer of ownership of the technology for which this Certification is issued. Said notification shall include the name and address of the proposed new owner and a written agreement between the existing and proposed new owner containing a specific date for transfer of ownership, responsibility, coverage and liability between them. All provisions of this Certification applicable to the Company shall be applicable to successors and assigns of the Company, unless the Department determines otherwise.
3. The Company shall develop and submit to the Department within 60 days of the effective date of this Certification: minimum installation requirements; an operating manual, including information on substances that should not be discharged to the System; a maintenance checklist; and a recommended schedule for maintenance of the System consistent with the Department's requirements essential to consistent successful performance of the installed Systems.
4. The Company shall make available, in printed and electronic format, the referenced procedures and protocol in paragraphs 3 directly above to owners, operators, designers and installers of the System.
5. The Company shall institute and maintain a program of designer and operator training and continuing education, as approved by the Department. The Company shall maintain and annually update, and make available the list of qualified operators by January 31st and make the list known to local approving authorities, the Department and to users of the technology.
6. The Company shall furnish the Department any information that the Department requests regarding the System, within 21 days of the date of receipt of that request.
7. The Company shall include copies of this Certification and the procedures described in Section V (3) with each System that is sold. In any contract executed by the Company for distribution or resale of the System, the Company shall require the distributor or reseller to provide each purchaser of

the System with copies of this Certification and the procedures described in Sections V (3).

8. The Company or its designee shall conduct an intended use review of the System prior to the sale of any nonresidential unit or any System over 1000 gpd to ensure that the proposed use of the System is consistent with the unit's capabilities.
9. The Company shall comply with 310 CMR 15.000 and all the Department policies and guidance that apply and as they may be amended from time to time.

VI. Reporting

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

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

VII. Rights of the Department

1. The Department may suspend, modify or revoke this Certification for cause, including, but not limited to, non-compliance with the terms of this Certification, non-payment of an annual compliance assurance fee, for obtaining the Certification 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 Certification, 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 Certification, the System, the owner, or operator of the System and the Company.