Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

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

Name and Address of Applicant:

Hoot Systems, LLC
2885 Highway 14 East
Lake Charles, LA 70607

Trade name of technology: H – Series Hoot System H500A, H600A, H750 and H1000 (hereinafter the "System"). Schematic drawings of a typical System, a design and installation manual, Owner's Manual, O&M manual, and the technology inspection checklist are part of this Approval.

Transmittal Number: X225363
Date of Issuance: June 30, 2009
Revision Date: November 05, 2012

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 Remedial Use to: Hoot Systems, LLC, 2885 Highway 14 East, Lake Charles, LA 70607 (hereinafter "the Company"), approving the System described herein for use in the Commonwealth of Massachusetts. The sale, design, installation, and use of the System are conditioned on compliance by the Company, the Designer, the Installer, the Service Contractor, 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

November 05, 2012
Date

Description of the Technology

The H-Series Hoot System has been approved for Remedial Use as a Secondary Treatment Unit (STU) which consists of a pretreatment tank, Aeration Chamber, and the Clarifier, as follows:

a) The pretreatment or Trash Trap, aides in the anaerobic decomposition of the influent and provides a storage volume for non-biodegradable matter which are inadvertently added to the system. This tank functions like a septic tank, providing a space for floatables (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 (BOD_5). 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.

b) 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. 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:

c) 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 discharges to a soil absorption system (SAS) installed in accordance with 310 CMR 15.000 and this Approval.

Conditions of Approval

The term “System” refers to the STU in combination with the other components of an on-site treatment and disposal system that may be required to serve a facility in accordance with 310 CMR 15.000.

The term “Approval” refers to the technology-specific Special Conditions, the conditions applicable to all STU’s with Remedial Use Approval, the General Conditions of 310 CMR 15.287, and any Attachments.

For Secondary Treatment Units that have been issued Remedial Use Approval for the upgrade or replacement of an existing failed or nonconforming system., the Department authorizes reductions in the effective leaching area (310 CMR 15.242), the depth to groundwater (310 CMR 15.212), and/or the depth of naturally occurring pervious material (310 CMR 15.240(1)) subject to the conditions that apply to all Secondary Treatment Units Approved for Remedial Use and subject to the Special Conditions applicable to the Technology.

Special Conditions

1. The System is Secondary Treatment Unit Approved for Remedial Use. In addition to the Special Conditions contained in this Approval, the System shall comply with all the "Standard Conditions for Secondary Treatment Units Approved for Remedial Use", except where stated otherwise in these Special Conditions,

2. The System is approved for facilities generating residential strength wastewater with a design of 1000 gallons per day (gpd) or less and where the local approving authority finds that:

   a) there is no increase in the actual or proposed design flow;

   b) the System is for the upgrade of a failed, failing or nonconforming system; and

   c) a conventional system with a reserve area, designed in accordance with the standards of 310 CMR 15.100 through 15.255, cannot feasibly be built on-site.

3. System models H500A and H600A include a built-in pretreatment tank. These units, when properly selected for the design flow of the residential facility to be served, shall be installed in series between the building sewer and the soil absorption system (SAS).

4. The System model H750 does not include a built-in pretreatment tank and must be installed with an additional 600 to 800 gallon septic tank for pretreatment prior to the unit. The septic tank must be designed and installed in accordance with the Company specifications. The septic tank (pretreatment tank) and the unit shall be installed in series between the building sewer and the SAS.

5. The System model H1000 does not include a built-in pretreatment tank and must be installed with an additional 800 to 1000 gallon septic tank for pretreatment prior to the unit. The septic tank must be designed and installed in accordance with the Company specifications. The septic tank (pretreatment tank) and the unit shall be installed in series between the building sewer and the SAS

6. The System models covered by this Approval are exempt from the requirements for a standard Title 5 septic tank designed in accordance with 310 CMR 15.223 and 15.228, provided that the aeration chamber is preceded with the appropriate pretreatment capacity (septic tank), as described in this Approval.

   The record drawings, on file with the local approving authority, shall clearly indicate an area for a septic tank meeting the requirements of Title 5 and the drawings shall indicate that the area is for the sole purpose of installing a Title 5 septic tank in the future, if necessary. The System Owner shall not construct any permanent buildings or structures or disturb the site in any manner that would prevent the installation of a Title 5 septic tank in the future.

7. The Company must maintain programs of training and continuing education for Designers. Training shall be provided at least annually. The Company or its authorized agent shall institute programs of training and continuing education that is separate from or combined with the training for Service Contractors. The Company or its authorized agent shall maintain, annually update, and make available by February 15th of each year, lists of trained Designers. The Company or its authorized agent shall certify that the Designers on the list have taken the appropriate training and passed the Company's training qualifications.