



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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Commissioner

April 1, 2002, Revised March 19, 2008

Sam Carter  
Orenco Systems, Inc.  
814 Airways Avenue  
Sutherlin, OR 97479

Re: BRP WP 62  
Technology: Orenco Systems, Inc. Biotube® Effluent Filters

Dear Mr. Carter:

With reference to a request by William Perkins of SANECO, Inc. dated February 29, 2008, the Department's approval of the OSI Effluent Filter ("Filter") for use in the Commonwealth of Massachusetts, is hereby revised to the above addressed company, Orenco Systems, Inc. The current name of the Filter, the Biotube®, is also referenced herein.

On July 21, 1993 the Department approved the use of the Biotube® Effluent Filter for an evaluation period of one year. During the evaluation period no problems regarding the performance of the Biotube® Effluent Filter were reported. Therefore, the Department allows the use of this filter in accordance with 310 CMR 15.289(4), Effluent Tee Filters, subject to the following conditions:

1. In accordance with 310 CMR 15.221(3), an access manhole with a minimum diameter of 20 inches shall be located over the effluent tee of the septic tank in which the OSI Effluent Filter is to be installed. That manhole must be extended to grade and the cover secured to prevent unauthorized access in accordance with 310 CMR 15.228. In addition, the manhole cover must clearly note (either painted with non-degradable paint or other permanent, identifiable markings) the system is equipped with Biotube® Effluent Filter.
2. Orenco Systems, Inc. shall, in any contract for distribution or sale of the Filter, require that the distributor or seller provide the purchaser of the Filter with a copy of this letter prior to any sale of the filter. Additionally, prior to sale or distribution of the Filter, any seller or distributor of the Filter shall provide the purchaser of the Filter with a copy of this letter.

**Biotube® Effluent Filter**

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3. Prior to installation of the Filter in an existing system, the system owner shall submit an application and plan showing the proposed location and details of the installation of the Filter in the system to the local approving authority. If the system is a failed or failing, the system shall also be upgraded in accordance with 310 CMR 15.000.
4. In accordance with 310 CMR 15.227(6), when installed, the Biotube® Effluent Filter must extend below the flow line at least to the following depths:

**Liquid Depth in Septic Tank**

4 feet  
5 feet  
6 feet  
7 feet  
8 feet

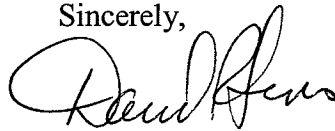
**Depth of Filter Below Flow Line**

14 inches  
19 inches  
24 inches  
29 inches  
34 inches

5. The owner of a septic tank in which the Filter has been installed shall have a septage hauler, licensed by the local Board of Health in accordance with G.L.c. 111 s. 31A and 310 CMR 15.502, clean the Filter at least once every year. The system owner shall report, in writing, to the local Board of Health within 30 days of the date of cleaning every time the filter is cleaned.
6. Orenco Systems, Inc. shall provide the local Board of Health, when requested, the name(s) and license numbers of the licensed septage haulers in the town which have been trained by the manufacturer in the proper maintenance of the Filter, as specified by the Manufacturer and the Department.
7. When the Filter is proposed for new construction, the system plans submitted with the application must show the location and details for installation of the Filter and must comply with the provisions of 310 CMR 15.000.
8. This approval does not constitute approval for use of the Filter in lieu of a properly sized septic tank, including, but not limited to, the requirements for a properly sized septic tank for greywater when used in conjunction with a composting toilet, as described in 310 CMR 15.289(3)(a)(2).

Should you have any questions regarding this matter, please do not hesitate to contact Dana Hill at (617) 292-5867.

Sincerely,



David Ferris, Program Director  
Watershed Management Program