



MARYLAND DEPARTMENT OF THE ENVIRONMENT

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MEMORANDUM

TO: All Interested Parties

THRU: Jay Prager, Deputy Program Manager
Wastewater Permits Program

FROM: Wastewater Permits Program
Onsite Systems Division
Bay Restoration Fund Team

DATE: January 22, 2007

SUBJECT: BAT Workgroup Meeting Discussions

In the Fall and Winter of 2006, the Maryland Department of the Environment (MDE) convened three meetings to discuss issues pertaining to the Onsite Sewage Disposal System (OSDS) portion of the Bay Restoration Fund (BRF). Manufacturers of OSDS components, vendors, installers and other interested parties attended these meetings. The primary purpose of the sessions was to establish a protocol for sampling Best Available Technologies (BAT) for the reduction of nitrogen in OSDS. While this was accomplished, there were other issues that were brought to light that will be addressed in this memorandum. The Department would like to thank all who participated in these discussions. Questions pertaining to this memorandum can be answered by calling the BRF Hotline at (410) 537-4195.

Sampling

1. MDE will require a model specific manufacturer sampling protocol for each unit eligible for the BRF. The sampling protocol must be submitted to the BAT Review Team for review and approval.
2. Samples are to be collected by a third party testing facility chosen and trained by the manufacturer. Currently the State does not have a certification for laboratories to test wastewater samples, however a list of certified drinking water laboratories was provided to the workgroup and this list may be used as a guide for possible third party testing facilities. This list is available at <http://dhmh.state.md.us/labs/html/WtrCrt/watercert.html>.



3. Changes to the testing facility or sampling protocol should be reported to MDE within 30 days.
4. Samples collected are to be a representative 24-hour composite or equivalent. A unit manufacturer representative may be present to ensure a quality sample is taken, but may not take the sample.
5. The testing facility will be expected to utilize a chain of custody and will be expected to provide, if necessary, this information to MDE.
6. The sample collected must be analyzed for Total Nitrogen and its components of TKN, Nitrite, and Nitrate in the lab.
7. Onsite measurements of dissolved oxygen (DO), wastewater temperature, and pH should be taken.
8. All sampling methods and preservation techniques should be consistent with "Standard Methods for the Examination of Water and Wastewater," 20th Edition, 1998, A.P.H.A. or any EPA approved method.

Monitoring and Reporting

1. MDE will require the first 12 units installed in Maryland by each manufacturer to be tested quarterly for one year for a total of 48 samples.
2. The resulting 24-hour composite samples, or equivalent, will be used for analysis of the performance of the system.
3. Sampling results and documentation shall be submitted by the unit manufacturer, or his representative, on a semi-annual basis, in electronic format to MDE. The sampling data shall be summarized and submitted as an Excel file. The actual laboratory reports shall also be submitted, preferably electronically as a PDF file.
4. Local Approving Authorities may have additional monitoring requirements; therefore, manufacturers must contact them to ensure they are in compliance.
5. After the verification period is over, MDE will not require further sampling but will reserve the right to spot sample any unit installed.
6. MDE may revoke approval if sampling results generated during the verification period indicate that the system is not meeting required effluent characteristics.
7. MDE will consider all efforts to work with the manufacturer in situations where effluent standards are not being met. If further monitoring is required, it will be at the manufacturers expense.

Design

There will be no mandate from the MDE requiring an engineer to design the BAT component of the system. In Maryland, the local Approving Authority is delegated the permitting

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responsibility for the construction of the disposal method for the OSDS effluent. Manufacturers must comply with the standard operating procedures of the local Approving Authority pertaining to the installation of OSDS but will not be held responsible for the disposal portion of the system.

As part of the review process, the BAT Review Team is allowing approved systems with identical treatment processes up to 1000 gallons per day for residential flow and strength to be eligible for the grant funding. Designs must be submitted to the BAT Review Team for residential flows greater than 1000 gallons per day and for all non-residential applications that wish to receive grant funding.

Permitting & Installation

BRF money may not be used to cover the cost of local permitting fees. The approving authority maintains the right to require whatever fees, evaluations, designs and installations are necessary to bring a site into compliance with applicable code. Activities not associated with installing a BAT for removing nitrogen are not eligible for funding under the BRF.

A BAT unit may only be installed under the supervision of an individual trained and certified by the BAT units' manufacturer. The local Approving Authority may only issue final approval upon receipt of the manufacturer's or, the manufacturer's designee that the installation of the BAT unit and all necessary components were completed correctly and per their manufacturer's installation standards. In Maryland, the local Approving Authority is delegated the permitting responsibility for the construction of the disposal method of the OSDS effluent. The BAT manufacturer will not be responsible for any design component requirements of the effluent disposal method that they did not provide to the site.

cc: Robert Summers, Ph.D.
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