

Q&A – Guidance for Implementing Revised COMAR 26.04.02.07; Best Available Technology for Removal of Nitrogen (BAT)

As of January 1, 2013, the requirements of COMAR 26.04.02.07 are as follows:

COMAR 26.04.02.07

Requirements for 26.04.02.07

- A person may not install, or have installed, an onsite sewage disposal system (OSDS) unless the onsite sewage disposal system utilizes Best Available Technology (BAT) for any of the following reasons:
 - The repair or replacement of a system at a property in either the Chesapeake Bay Critical Area or the Atlantic Coastal Bays Critical Area;
 - New construction in either the Chesapeake Bay watershed or the Atlantic Coastal Bays watershed; or
 - New construction in any watershed of a nitrogen impaired body of water.
- A person certified by MDE and the manufacturer must be onsite through the entire installation of a BAT.
- All newly installed and existing BAT systems shall be maintained and operated for the life of the system through one of the following management measures:
 - A service contract with a certified operation and maintenance (O&M) service provider;
 - A responsible management entity, established by the Approving Authority and acceptable to MDE, assumes O&M of the BAT system; or
 - A renewable operating permit, required by the Approving Authority, that includes enforcement provisions, inspections and monitoring.

Best Available Technology (BAT)

Definition of Best Available Technology Systems

- BAT systems are systems designed to provide suitable conditions for aerobic and anaerobic activity to reduce nitrogen discharge from onsite sewage disposal. Various technologies are approved for use in Maryland by MDE.

Approval of BAT's for use in Maryland

- The Best Available Technology Technical Review Committee consisting of members from MDE and local approving authorities analyzes and evaluates technology for use as BAT in Maryland.

BAT Classifications

- Class I: Nitrogen reducing units that are currently approved and field verified by MDE. Capable of reducing total nitrogen to 30 mg/L or less. Class I technologies are grant eligible by the Bay Restoration Fund (BRF).
- Class II: Nitrogen reducing units that are currently being field verified by MDE. Upon completion of field verification, technology will become Class I, enter a modified verification process, or be classified as a Class III technology.
- Class III: Pre-treatment technologies capable of reducing total nitrogen to 48 mg/L effluent. May only be installed as a BAT when paired with a Class IV soil dispersal system.
- Class IV: Onsite sewage disposal systems installed above, at, or just below (12" max. depth) grade. Capable of reducing total nitrogen by 30%. Must be paired with a BAT Class I, II, or III.
 - Sand Mounds: On-site sewage disposal system that is elevated above the natural soil surface in a suitable sand fill material.
 - At-Grade Systems: On-site sewage disposal system that uses a raised bed of gravel or stone over the natural soil with a pressure distribution system.
 - Low Pressure Distribution: On-site sewage disposal system that uniformly distributes effluent at a depth not to exceed 12 inches across the entire dispersal field.
- Class V: Other technology that mitigates the impact of total nitrogen on groundwater, but does not fit into any of the above BAT classifications.
- Refer to MDE's website for lists of approved technologies and restrictions for Class IV systems to receive BAT credit.

Installation

Certified Installers

- Only a person who has completed a course of study approved by MDE for the installation of BAT, and who has a certification of qualification for installing BAT systems from the manufacturer.
- The certified person must be present on the property for the entire installation of a BAT unit.
- These requirements are in conjunction and addition to the local Approving Authority's requirements for county specific installation requirements and any local installer certification or licensing, if applicable.
- For sand mounds that require a BAT, the installer must be a certified sand mound installer. For at-grade systems that require a BAT, the installer must be a certified at-grade system installer.
- For a list of MDE-approved BAT installers or for more information on becoming a MDE approved installer, please see the On-Site Program page on MDE's website.

Reporting of Installations and Operation and Maintenance (O&M) of BATs to the Approving Authority and MDE

- The installer is to notify the local authority, MDE and the manufacturer of installation within 30 days of final inspection. An installation record is to be maintained by the installer and manufacturer and made available to MDE and/or the Approving Authority upon request.
- Installation and O&M of all BATs in Maryland are reported to MDE's BAT Database. Vendors and service providers are required to report all installations and O&M service visits to MDE within 30 days. Information in this database is available to MDE, Approving Authorities, and local governments.
- Restricted access has been given to vendors and service providers for their specific technologies and service contracts.

Operation and Maintenance

Operation and Maintenance (O&M) Requirements

- BAT manufacturers are required to provide a five year O&M contract in the initial purchase price of their technology as a condition of approval in Maryland.
- After the initial five year O&M contract, all property owners must have a current BAT service contract. The property owner shall maintain a service contract with a certified provider for the life of the system.
- At least once a year, all BATs must be inspected and the necessary O&M performed.
- The service provider is to notify the Local Authority, MDE and the manufacturer of service performed after each system is serviced.
- A service record is to be maintained by the provider and available to MDE and/or the Approving Authority upon request.

Certified Service Providers

- A BAT system shall be operated and maintained by a certified service provider.
 - Individuals may become certified upon completion of a course of study on operation and maintenance of BAT systems approved by MDE. The course of study must include instruction on how BAT systems function as well as elements on operation, maintenance and repair of BAT systems.
 - A certified service provider must also have a certificate of qualification from the manufacturer of the specific BAT technology being serviced.
 - A property owner may obtain certification as a service provider to maintain their own system. If the property owner becomes their own certified service provider, then they

will be subject to all requirements of this regulation pertaining to operating and maintaining their BAT system.

- MDE shall maintain a list of certified service providers. Refer to the On-site Program page on MDE's website.

Financial Assistance

Financial Assistance from the Bay Restoration Fund

- Based upon available funds, all property owners in Maryland are eligible for financial assistance through the Bay Restoration Fund (BRF) Program. The BRF may pay for up to 100% of the cost difference between a traditional system and one that includes a BAT. Funding is only available for the portion of the system upgrade that is designed to reduce nitrogen discharge. In addition, grant funds may also be provided for the repair or replacement of non-BAT components (e.g. drain fields) for a "low income" household applicant with a failing septic system.

Prioritization of BRF Applications

- In accordance with State Law, the BRF prioritizes upgrades as follows:
 1. Failing septic systems in the Critical Areas
 2. Failing septic systems outside the Critical Areas
 3. Non-conforming septic systems in the Critical Areas
 4. Non-conforming septic systems outside the Critical Areas
 5. Other septic systems in the Critical Areas, including new construction
 6. Other septic systems outside the Critical Areas, including new construction

Financial Assistance Applications

- To apply for funding for a BAT unit, please contact your county BRF representative.
 - Allegany: 304-259-4739
(Canaan Valley Institute)
 - Anne Arundel: 410-222-7324
 - Baltimore: 410-887-2762
 - Calvert: 410-535-1600 x2336
 - Caroline: 410-479-8045
 - Carroll: 410-876-1884
 - Cecil: 410-996-5160
 - Charles: 301-609-6900
 - Dorchester: 410-228-1167
 - Frederick: 304-259-4739
(Canaan Valley Institute)
 - Garrett: 301-334-7760
 - Harford: 410-877-1500

- Howard: 304-259-4739
(Canaan Valley Institute)
- Kent: 410-778-1361
- Montgomery: 304-259-4739
(Canaan Valley Institute)
- Prince George's: 301-883-4936
- Queen Anne's: 410-758-2281
- Somerset: 443-523-1730
- St. Mary's: 301-475-4321
- Talbot: 410-770-6880
- Washington: 304-259-4739
(Canaan Valley Institute)
- Wicomico: 410-546-4446
- Worcester: 410-632-1220

Grant Eligible Cost of BAT

- The percentage of a BAT system's cost that will be funded is based upon the following income criteria:
 - Homeowners:
 - Household income less than or equal to \$300,000/year = 100%
 - Household income greater than \$300,000/year = 50%
 - Non-profit Entities (including government entities) = 100%
 - For-profit Businesses = 50%

Other Financial Assistance

- Additional financial assistance may be available. Please contact your County or State BRF representative.

Other

Failing Systems

- MDE considers an OSDS to be failing when the continued operation of the system presents an imminent threat to public health. This includes either the possibility of human contact with sewage through a system that directly discharges to ground surface, surface water or backs up into a building; or, the system has been identified as contaminating a specific drinking water supply.
- In those circumstances where a private inspector determines an OSDS is failing as part of a property transfer inspection, the system will be given the same priority or BRF grant as a failing system.

New Construction

- New structures served by onsite sewage disposal systems in the Chesapeake Bay and Atlantic Coastal Bays watersheds.

- A BAT installation is required where a residence or other building is being altered and the Approving Authority determines that the existing OSDS is not adequate to serve the proposed altered building.

Critical Area

- Critical Area is land within 1,000 feet of tidal water.
- If any part of the building served by the sewage disposal system, the sewage disposal system itself or the sewage disposal reserve area is within the Critical Area, then BAT is required for the repair or replacement of the OSDS serving the property.
- Please contact your County's BRF representative regarding Critical Areas in your community.