



west virginia department of environmental protection

Division of Water & Waste Management
Office of Environmental Enforcement/Tanks Program
601 57th Street SE
Charleston, WV 25304
Telephone: 304-926-0470; Fax: 304-926-0457

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

WEST VIRGINIA ABOVEGROUND STORAGE TANK PROGRAM Permanent Aboveground Storage Tank Closure Guidance

This general guidance is being provided for the owner or operator who plans to permanently close a regulated AST system on or after August 1, 2016. The information provided is a summary of some of the major points to consider when closing an AST system.

- In accordance with 47-63-11, at least 30 days before beginning permanent closure the owner or operator must submit notification to the WVDEP Tanks Program to schedule the date the closure will begin. A waiver of the 30 day notification period may be allowed for good cause shown.
- The owner or operator shall submit a closure plan for review and approval by the WVDEP at least thirty (30) days prior to closure, unless a waiver has been granted. Two (2) copies¹ of the plan should be submitted. The Tanks group will review the plan for tank cleaning and tank contents disposal related issues and personnel from the Office of Environmental Remediation (OER) will review for appropriateness of the proposed sampling locations and analytical methods. At a minimum, the plan should address the following:
 - Tank registration and WVDEP tank ID number for each tank to be closed.
 - Identification and contact information for the PE or certified person overseeing closure activities.
 - Procedures for tank entry and cleaning, as applicable. Reference to appropriate sections of the above reference API and/or NFPA standards is sufficient. If utilizing another industry standard, please identify the standard, describe the procedures or provide a copy of the standard being utilized.
 - Describe planned disposal activities and disposal facilities for tank contents, cleaning materials, tank(s) and piping, as applicable.
 - Proposed sampling locations and analytical methods for closure samples. The owner/operator must measure for the presence of a release where contamination is most likely to be present. (*Questions concerning sampling protocols should be directed to the Leaking Aboveground Storage Tank Program*)
- Tank closure is not to begin without approval from the WVDEP.

- Closure activities must be performed in accordance with industry standards. Guidance from the American Petroleum Institute (API) and the National Fire Protection Associate (NFPA) may be used to comply with the closure requirements related to tank entry and cleaning.
 - API 2015, *Requirements for Safe Entry and Cleaning of Petroleum Storage Tanks*
 - API 2016, *Guidelines and Procedures for Entering and Cleaning Petroleum Storage Tanks*
 - NFPA 326, *Standard for the Safeguarding of Tanks and Containers for Entry, Cleaning, and Repair*

- All relevant and applicable OSHA and NIOSH Safety Standards should be followed while performing closure activities.

- Closure activities must be performed by a professional engineer (PE), or a person certified by API or Steel Tank Institute (STI).

- Prior to disposal, appropriate identification and testing must be performed on all waste material to determine if the material is a hazardous waste (the material may be declared a hazardous waste without testing at the owner's discretion):
 - Wastes determined to be hazardous wastes must be managed as such in accordance with 40 CFR 262 (i.e. proper containers, labeled as hazardous waste, dated, limited storage times, etc.).
 - Hazardous Waste EPA Identification Number: Each site in West Virginia where hazardous wastes are generated must have an EPA identification number. If the site does not already have a number, a temporary number can be obtained by calling the Division of Water & Waste Management, Office of Waste Management at (304) 926-0495. This number is required to properly ship hazardous waste off-site. Please have the following information before you call:
 - A. Tank owner's name
 - B. Location of the tank(s)
 - C. Amount of waste
 - D. Waste type (benzene, lead, ignitable, etc.)
 - E. Contractor name and phone number
 - F. Transporter's EPA Identification Number
 - G. Name of disposal facility
 - H. Disposal facility's EPA Identification Number

- Industrial Waste (non-hazardous waste):
 - This waste must be disposed of at a facility permitted to accept non-hazardous industrial wastes.
 - A hazardous waste determination documenting the non-hazardous nature of the waste must be documented and available for review.

- The tank and piping up to the first point of contact must be emptied. The AST system is empty when all materials have been removed using commonly accepted practices. The liquids and tank bottom residues must be removed from the tank by using explosion-proof or air driven pumps for ASTs containing flammable or combustible liquids. Piping should be drained into the tank. It may be necessary to remove the last few inches of liquid from the bottom of the tank with a hand pump or vacuum truck. Safety precautions must be followed (See API 2015, API 2016, and/or NFPA 326).

- The tank must be purged of flammable vapors or inerted, as applicable. This should be done by following procedures removal of vapors outlined in the above reference API and/or NFPA documents. It is important to recognize that the tank may continue to be a source of flammable vapors even after following the vapor freeing procedures. For this reason, caution must be used when working around the tank. Continued vapor monitoring and safe handling and storage procedures must be applied to the tank to protect human health and the environment.
- The tank must be cleaned by removing all liquids and accumulated tank bottoms. Personnel cleaning the tank should be adequately trained, outfitted, and familiar with the safety precautions necessary when performing this work (see API and NFPA documents referenced above). Tank bottoms may be removed by various methods depending on the tank. The simplest method is to wash, brush or sweep the tank bottoms into piles; shovel the tank bottoms into buckets or wheelbarrows; sweep and wash down the tank with a water hose stream; and remove the remaining moisture by using an absorbent. Vacuum trucks may also be used. Any waste material (tank bottoms or absorbent material) must be characterized and disposed of properly. Care must be taken during tank bottoms removal to minimize the release of vapors from the tank bottoms.
- The tank owner or operator shall submit a minimum of two (2) copies¹ of the closure report to the Secretary no later than sixty (60) days after the closure has been completed. The closure report shall describe the regulated AST system closure procedures, including findings of any closure sampling required as part of the closure. The owner or operator shall retain a copy of the closure report for a minimum of three (3) years. If records cannot be maintained at a closed facility or an alternative site, the tank owner or operator may transmit the permanent closure records to the Secretary.
- If contaminated soil, sediment, surface water or groundwater or free product is discovered outside of secondary containment or confirmed by either direct observation or indicated by the analytical results of the closure sampling, the owner or operator shall report the release immediately to the WVDEP via the WVDEP Spill Line at 1-800-642-3074 and comply with section 7 of the AST Rule.
- All regulated ASTs permanently taken out of service should be made incapable of holding liquids for the duration of their permanent closure status. If tanks are left on-site, the tanks should be flanged off or otherwise rendered incapable of holding liquid. ASTs left on-site are to be legibly marked with information on the last substance stored in the AST, the date of closure, and the words “Permanently Closed”. Alternatively, the emptied and clean AST may be removed from the site for storage for future use or may be sent for disposal or recycling.
- ASTs that have underwent permanent closure may be brought back into service; however, when these tanks are brought back into service it will be considered a “new install”. All requirements for new installs will apply to permanently out of service (POS) tanks being brought back into service.

¹ *If the plan is submitted electronically in a PDF version, then only 1 copy need be submitted. If submitting hard copies of a plan, the requirement is to submit two (2) copies, one for review by the Tanks group and one for review by the Leaking Aboveground Storage Tank (LAST) Program. The Tanks Program will review the plan for tank cleaning and disposal related issues and LAST will review for appropriateness of the proposed sampling locations and analytical methods.*