



Above Ground Storage Tank (AST) Minimal Requirements

The Maryland Port Administration (MPA) is distributing this Guidance Document to address the growing concerns associated with Aboveground Storage Tanks (ASTs) and Fossil Fuel Powered Generators (Gensets) located within the limits of MPA Property.

Agencies having authority include the following:

- 1) Maryland Port Administration
2310 Broening Highway
Baltimore, MD 21224
(410) 633-1045
- 2) Maryland Department of Environment
Oil Control Program
1800 Washington Boulevard
Baltimore, MD 21230
(410) 537-3000
- 3) Office of the State Fire Marshall
300 E. Joppa Road
Towson, MD 21286
(800) 525-3124

This document will include several references to regulations, standards, and recommended practices associated with ASTs and Gensets. It is strongly recommended that all tenants become familiar with the following references:

- Code of Maryland Regulations – COMAR 26.10.01.12
- Environmental Protection Agency – 40 CFR Part 112
- Underwriters Laboratories
 - UL 80 – Standard for Steel Tanks for Oil-Burner Fuels and Other Combustible Liquids (Current Edition 2007)
 - UL 142 – Standard for Steel Aboveground Tanks for Flammable and Combustible Liquids (Current Edition 2006)
 - UL 2080 –Standard for Safety Fire Resistant Tanks for Flammable and Combustible Liquids (Current Edition 2000)
 - UL 2085 – Standard for Protected Aboveground Tanks for Flammable and Combustible Liquids (Current Edition 1997)
 - UL 2200 – Standard for Stationary Engine Generator Assemblies (Current Edition 1998)
- American Petroleum Institute



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- API 12F - Specification for Shop Welded Tanks for Storage of Production Liquids (Current edition 2007)
- API 650 – Welded Steel Tanks for Oil Storage (Current edition 2007)
- National Fire Protection Association
 - NFPA 1 – Uniform Fire Code (Current Edition 2006)
 - NFPA 30 – Flammable and Combustible Liquids (Current Edition 2008)
 - NFPA 30A - Code for Motor Fuel Dispensing Facilities and Repair Garages (Current edition - 2008)
 - NFPA 31 - Standard for the Installation of Oil-Burning Equipment Code (Current edition – 2006)
 - NFPA 58 – Liquefied Petroleum Gas Code (Current Edition 2008)
 - NFPA 70 – National Electric Code (Current Edition 2008)
 - NFPA 77 - Recommended Practice on Static Electricity (Current Edition 2007)
- Petroleum Equipment Institute
 - PEI/RP200 - Recommended Practice for Installation of Above-ground Storage Systems for Motor Vehicle Fueling (Current Edition 2003)
- Steel Tank Institute
 - STI/SP001 - Shop Fabricated: Specifications, Standards, Recommended Practices & Procedures (Current Edition 2006)

All Tenant Alteration Requests (TARs) will require acceptance and adherence to the existing regulations. In addition, all TARs will require acceptance and adherence to the standards and recommended practices documents that are referenced herein. Finally, all TARs will require acceptance and adherence to the following MPA policies:

1) Types of Tanks

- a. All ASTs containing Class I, Class II, or Class III liquids shall be listed as UL 2080 or UL 2085 tanks.
- b. All ASTs shall be less than 6,000 gallon capacity.
- c. All Gensets shall be listed as UL 2200.
- d. All Liquid Petroleum Gas (LPG) Containers shall be less than 1,000 gallon capacity.

2) Setbacks

- a. UL 2085 – 5' from Buildings, 15' from Lot Line, 3' between Tanks
- b. UL 2080 – 25' from Buildings, 50' from Lot Line, 3' between Tanks
- c. LPG Containers – 10' from Buildings, 10' from Lot Line, 5' between Container, 20' from ASTs containing Class I, Class II, or Class IIIA liquids
- d. Gensets – Locations to be approved by MPA.
- e. Storm Drains - All ASTs shall have a minimal setback of 20' from storm drains.



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3) Protection of ASTs & Gensets

- a. ASTs and Gensets shall be protected by Bollards.
- b. Bollards shall be 4" in diameter.
- c. Bollards shall be spaced 4' on center.
- d. Bollards shall protrude above grade not less than 3'.
- e. Bollards shall be encased in a footing of 3' in depth and 15" in diameter.
- f. Bollards shall be positioned not less than 5' from AST or Genset.

4) Foundation & Anchorage

- a. Tanks shall rest on foundations made of concrete. Tank foundations shall be elevated 4-12" above grade.
- b. Where tanks are supported above their foundations, tanks shall not exceed 12" high at their lowest point.
- c. Tanks shall be secured to a foundation with sufficient weight to prevent flotation of an empty tank at the maximum-anticipated water level.

5) Dispensing Devices

- a. Dispensing devices shall be mounted atop the AST.
- b. Dispensing devices shall be listed for Class I & Class II liquids.
- c. Maximum hose length is 18'.
- d. Hose shall have breakaway device.
- e. Hoses shall be of retractable type.
- f. Dispensing systems shall be provided with clearly identified emergency shutoff devices or electrical disconnects.

6) Signage

- a. Warning signs shall be conspicuously posted in the dispensing area and shall incorporate the following or equivalent wording: WARNING – It is unlawful and dangerous to dispense gasoline into unapproved containers. No smoking. Stop motor. No filling of portable containers in or on a motor vehicle. Place container on ground before filling. Discharge your static electricity before fueling by touching a metal surface away from the nozzle. Do no re-enter your vehicle while gasoline is pumping. If a fire starts, do not remove nozzle – back away immediately. Do not allow individuals under licenses age to use the pump.
- b. Emergency instructions shall be conspicuously posted in the dispenser area. The instructions shall incorporate the following or equivalent wording: "Emergency Instructions – In case of fire or spill 1) Use emergency stop button; 2) Report accident by calling 410-633-1092. Report location."



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- c. Tanks shall be conspicuously marked with the name of the product contained and with the following marking: Flammable – Keep Fire and Flame Away.
 - d. Each fill pipe shall be identified by color code or other marking to identify the product for which it is used. The color code or marking shall be maintained in legible condition throughout the life of the installation.
 - e. Tanks shall be conspicuously marked with tank owner and contact phone number.
- 7) Electrical
- a. Tank systems shall be in compliance with NFPA 1 – Uniform Fire Code, NFPA 30 - Flammable and Combustible Liquids, NFPA 30A - Code for Motor Fuel Dispensing Facilities and Repair Garages, NFPA 70 - National Electric Code, and NFPA 77 - Recommended Practice on Static Electricity.
- 8) Relocation of ASTs
- a. UL 2080 and 2085 ASTs that are relocated shall undergo leak testing of the primary and secondary tanks prior to placing the AST in service.
- 9) Tank Inspection Program
- a. Tenants containing an aboveground storage tank capacity greater than 1,320 gallons are regulated by EPA's 40 CFR 112 – Spill Prevention, Control, and Countermeasures Rule. MPA's SPCC Advisory addresses requirements for an SPCC and is attached.
 - b. Tenants containing an aboveground storage tank capacity of 1,320 or less shall develop and implement a tank inspection program. Tenants are encouraged to utilize STI-SP001 "Standard for the Inspection of Aboveground Storage Tanks."
- 10) Tank System Submittals
- a. Manufacturer product specifications for AST.
 - b. Manufacturer product specifications for dispensing system.
 - c. Site plan with reference to scale.

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