AST (Above-ground Storage Tank) BMP FACTSHEET 1 Rev. 04/2023

Targeted Pollutants	
Sediment	
Nutrients	
Trash	
Metals	
Bacteria	
Oil & Grease	X
Chemicals	
Salt	

Objectives	
Cover	
Contain	X
Educate	X
Reduce/Minimize	X
Product Substitution	

DESCRIPTION

Aboveground storage tank (AST) is any one or combination of tanks used to contain an accumulation of oil, fuel or other materials stored above the surface of the ground. The goal of regulating ASTs is to prevent spills and leaks by requiring facility owners to comply with various safeguard requirements. Safeguards include secondary containment, corrosion protection, overfill prevention, and leak detection.

GUIDELINES

ALL ASTs must be permitted by DPW/Environmental Division (Env. Div.). Please contact DPW/ Env. Div. at 703-806-3694 before installing ASTs. Specialized permits are issued depending on tank specifications. DPW/Env. Div. will determine which permit is required for each individual tank.

- Aboveground oil storage tanks should be built and tested in accordance with industry and other specified standards.
- Fuel storage tanks must be vented so fumes can escape, reducing the potential for ruptures and collapses.
- Certain fuels can be very corrosive. Ensure the equipment coming in contact with corrosive contents (including the tank itself) is made of a corrosion resistant material such as high density polyethylene, stainless steel or glass fiber.
- All ASTs **must have** secondary containment.
- Tanks should be painted with a light color and be rust free.
- Tanks should be **labeled** as to contents, size, last internal inspection, safe gauge height and year built. Make sure **signs** on tanks are visible and legible.
- Tanks must have overfill protection, including direct vision gauges, high liquid level alarms, flow restrictions or high liquid level shut-off devices.
- To reduce the chances for corrosion, tanks should be placed on a pad, foundation or supports rather than directly on the ground.

Aside from the major components of an AST Facility, additional items and equipment are required:

- **Fencing**: AST facilities must have fences and gates that can be locked. The purpose of the fence is to keep unauthorized people, vandals and animals out.
- **Lighting:** AST facilities must have sufficient lighting to prevent vandalism and help detect spills at night.
- **Signs:** "No Smoking" signs must be posted around the facility so they can be seen from every side of the tank farm. Also "Danger", "Warning" or "Authorized Personnel Only" signs must be posted to warn unauthorized individuals from entering the facility.
- **Back-up Equipment:** If emergency pumps and/or skimmers are located at the site, start them up at least once a month for about 15 minutes. Review manufacturer instructions for your tank specifically.

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MAINTENANCE/GOOD HOUSKEEPING

INSPECTIONS

The Spill Prevention, Control and Countermeasure Plan (SPCC) rule requires that you:

- Test or inspect **each** container monthly for integrity on a regular schedule and whenever you make material repairs.
- Frequently inspect the outside of the container for signs of deterioration, discharges or accumulation of oil inside diked areas. This visual inspection is a routine walk-around and includes inspection of the container's supports and foundations.
- Identify in your SPCC Plan the type and frequency of testing and inspection for each container and the appropriate qualifications of personnel performing the tests and inspections. Testing and inspection records must be kept for 3 years. EPA recommends formal test records or reports be kept for the life of the container.

Integrity testing is required for all above-ground bulk storage containers to determine if the container (e.g. a tank) is suitable for continued use until the next visual inspection.

SPILL PREVENTION

Common causes of spills at AST facilities include:

- **Operator error**
  - ⇒ Overfilled tanks
  - ⇒ Valves left open
  - ⇒ Poor transfer procedures
  - ⇒ Lack of product monitoring
  - ⇒ Potential problems not recognized
  - ⇒ Poor maintenance/good housekeeping practices
- **Poorly designed or improperly installed facilities**
  - ⇒ Inadequate security
  - ⇒ Facility located near vehicular traffic
  - ⇒ Facility located in flood zone or exposed to hurricanes or any other area where natural disasters are likely to happen
  - ⇒ Falling snow and ice from tanks onto piping
- **Storage Tank Problems**
  - ⇒ Tank design and construction
  - ⇒ Inadequate foundation or tanks sitting directly on the ground
  - ⇒ Tank bottom and seams rusted, shell pitted, weeping or leaking
  - ⇒ Improper venting

SPILL RESPONSE PROCEDURES

In the event of a spill or leak, follow the appropriate Spill Response Procedures posted at your facility or refer to the BMP Factsheet Overview.

- **Survey the incident** from a safe distance. Identify the source of release and the material being released.
- Call the Ft. Belvoir Fire Department if spills are *greater than 5 gallons OR greater than 5 square feet.* If ANY amount of leaked material has entered a storm drain or waterway call the Ft. Belvoir Fire Department at 703-781-1800 and DPW Environmental Division (Env. Div.) at 703-806-3694.
- Provide the Safety Data Sheet of the spilled material to the spill response personnel.
- Fill out Spill Incident Report in your SWPPP.
- REPORT ALL SPILLS REGARDLESS OF SIZE TO DPW/ENV. DIV.

REPORT SPILLS TO DPW/ENV. DIV. BY:

- E-mailing your Spill Incident Report to zachary.d.witman.civ@army.mil
- Calling 703-806-3694