

MARYLAND DEPARTMENT OF THE ENVIRONMENT

Land Management Administration • Oil Control Program
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UNDERGROUND STORAGE TANK (UST) SYSTEMS COMPLIANCE OUTLINE

5/6/10

In Maryland, certain UST systems must meet various compliance requirements. The following is a summary of UST compliance requirements:

Motor Fuel, Used Oil, Bulk Heating Oil Storage (Federal/State regulated systems)

All Systems:

By August 8, 2012 the owner of a regulated substance storage facility shall identify in writing individuals to serve as a Class A, B, and C operator for the storage tank facility. (COMAR 26.10.16)

Existing Systems:

(Installed prior to December 22, 1988)

1. Must use certified technician for repairs.
2. Must have monthly monitored release detection for tanks and lines.
3. Must have spill and overfill protection by 12/22/98.
4. Must have corrosion protection by 12/22/98.
5. Metered storage must keep daily inventory records and monthly reconciliation.
6. Install 2 monitoring pipes on opposing corners in tank field. (On or after March 15, 1985).
7. Mark fill pipes to indicate size of tank and product type in accordance with API.
8. All pressurized piping must have line leak detectors that are tested yearly and be precision tested yearly or have monthly monitored release detection.
9. Must have financial responsibility.
10. Yearly test all spill catch basins.
11. Every five years test all containment sumps.
12. See additional requirements for gasoline USTs in the High Risk Groundwater Use Area.

(UST systems installed on or after December 22, 1988)

1. Must use certified technician for installation or repairs.
2. Have monthly monitored release detection for tanks and lines.
3. Have spill and overfill protection.
4. Must have corrosion protection.
5. Metered storage must keep daily inventory records and monthly reconciliation.
6. Mark fill pipes to indicate size of tank and type of product in accordance with API.
7. Install 2 monitoring pipes on opposing corners in tank field.
8. Must have financial responsibility.
9. Must notify MDE/OCP in writing 5 working days prior to beginning the installation.
10. Test for leaks all spill catch-basins yearly.
11. Test for leaks all containment sumps every five years.
12. See additional requirements for gasoline USTs in the High Risk Groundwater Use Area.

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(UST systems installed on or after January 26, 2005)

1. Be installed with double wall piping for all product, vapor and vent piping.
2. Have a containment system at both the tank top and under the product dispenser.
3. Be inspected by a MDE certified inspector within 6 months of installation.
4. Comply with all existing system items listed above.

New, Replacement or Upgraded* Systems:

(Systems installed on or after January 12, 2009)

1. Must be installed with double wall tanks.
2. Must have interstitial monitoring.
3. Test the secondary portion of the piping prior to use and every 5 years thereafter
4. Comply with all other existing system items listed above.

Emergency Generator Tanks:

These systems must follow Federal/State regulated UST requirements above. Emergency Generator Tanks installed prior to March 1, 2008 are exempt from monthly monitored release detection however, the storage system must be precision tested at 15 years of age and every 5 years thereafter.

Stationary Internal Combustion Engines used to power electric generators are required to be registered or permitted by the Air and Radiation Management Administration (ARMA) if they are above 500 brake horsepower (373 kilowatts) and/or if the generator is used to generate electricity for sale or for peak or load shaving. Any engine installed prior to July 1, 1988 requires registration. Electric generators installed after July 1, 1988 require a construction permit.

Heating Oil for Direct Consumptive Use (State regulated)

Existing Systems:

(Installed prior to March 15, 1985)

1. Gauge tank prior to filling; record and retain record.
2. Precision test system at 15 years of age and every 5 years thereafter.
3. Mark fill pipes to indicate tank size and product stored in accordance with API.
4. Yearly test all spill catch basins.
5. Every five years test all containment sumps.

(Installed on or after March 15, 1985)

1. Gauge tank prior to filling; record and retain record.
2. Must have corrosion protection.
3. Use certified technician for installation or repairs.
4. Precision test prior to first use.
5. Install 2 monitoring pipes on opposing corners in tank field.
6. Mark fill pipes to indicate tank size and product stored in accordance with API.
7. Precision test system at 15 years of age and every 5 years thereafter.
8. Have spill and overfill protection on or after 11/4/96. For USTs under 1,000-gallon capacity, a vent whistle would suffice.
9. Must notify MDE/OCP in writing 5 working days prior beginning the installation.

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(UST systems installed statewide on or after January 26, 2005)

1. Be installed with double wall piping for all product and vapor piping.
2. Have a containment system at both the tank top and under the product dispenser.
3. Test for leaks all spill catch basins yearly.
4. Test for leaks all containment sumps every five years.
5. Comply with all items listed above.

New, Replacement and Upgrade* Systems:

(Systems installed on or after January 12, 2009)

1. Must be installed with double wall tanks.
2. Comply with all existing system items listed above.

All UST Systems:

System must be properly registered with the Department's Oil Control Program.

Out-of-Service UST Systems:

1. USTs that do not comply with corrosion protection requirement: permanently close within 180 days of last use.
2. USTs that meet corrosion protection requirements: permanently close within 1 year of last use.
3. Notify Department in writing 30 days, and confirm by telephone 48 hours, prior to removal.
4. Site assessment is required. MDE inspector must be present on site.
5. Removal must be performed by certified technician or remover contractor.

Residential and Farm UST systems:

USTs with 1,100-gallon capacity or less, used to store petroleum products, at a private residence or farm are exempt from most Maryland regulations. These systems must comply with closure requirements when no longer used as a fuel source (COMAR 26.10.10). The OCP does not require prior notice of the closure. However, the contractor must be MDE certified for tank removal activities. The tank owner and contractor must report any discovered release as required by Maryland law and regulations. USTs over 1,100-gallon capacity must be registered with the Department's Oil Control Program. Heating oil systems over 1,100 gallons must comply with the "**Heating Oil for Direct Consumptive Use**" requirements above. Motor fuel systems over 1,100 gallons must comply with the "**Motor Fuel, Used Oil, Bulk Heating Oil Storage**" as outlined. MDE strongly recommends the replacement of USTs > 20 years of age.

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Marinas:

In addition to the standard motor fuel requirements marinas must also comply with Code of Maryland Regulations (COMAR) 26.10.03.07: (See COMAR for exact language)

Existing and New Systems:

1. Fuel delivery nozzles shall be equipped with a self-closing valve that will shut off the flow of fuel when the hand is removed from the nozzle. Hold open devices may not be used on these nozzles.
2. Each pipeline conveying oil from an oil storage facility to a wharf, pier, or dock shall be provided with a readily accessible shut-off valve located on shore near the approach to the wharf, pier, or dock, and outside any diked area. The shut-off valves shall be grouped at one location and marked "emergency shut-off."
3. Owners must submit plans for piping systems associated with piers or docks for approval by the Department. A plan may be approved if the Department determines that it is adequate to prevent the discharge of oil.

NFPA30A, Chapter 10: (See text for complete language)

1. Tanks shall be on shore or on a pier of the solid-fill type.
2. If a gravity head is possible, a device to prevent gravity flow must be installed.
3. Piping must be protected from physical damage.
4. Facility must have an attendant or supervisor on duty when open for business.
5. Piping on piers shall be adequately bonded and grounded.
6. "No Smoking During Fueling Operations" signs must be posted.
7. Emergency shut-off switches must be readily accessible.

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Beginning January 26, 2005 certain USTs must be in compliance with the following requirements.

High Risk Groundwater Use Area:**

New gasoline UST systems, used to fuel motor vehicles, in the High Risk Groundwater Use Area must either:

1. Submit required documents to demonstrate the storage system does not pose a threat; or
2. Comply with the following:
 - a. Test the system for vapor leaks, using the MDE protocol, prior to startup.
 - b. Use interstitial monitoring.
 - c. Implement one of the following:
 - i. Install three or more groundwater monitoring wells (2" diameter wells are acceptable);
 - ii. Install a pressure control device; or
 - iii. Install a Soil Vapor Extraction System.
 - d. Additionally, USTs with a capacity > 2,000 gallons or for multiple tanks in the same tank excavation must install four monitoring pipes connected in a manner that allows for the rapid installation of a soil vacuum extraction system
3. Within 30 days:
 - a. Sample the site supply well and any monitoring wells;
 - b. Test for leaks all spill catch basins and containment sumps.
4. Yearly:
 - a. sample the site supply well and any monitoring wells;
 - b. Test for leaks all spill catch basins.
5. Every Five Years test for leaks all containment sumps.

Existing gasoline UST Systems that: are over 2,000 gallon in capacity, utilize Stage II vapor recovery and are used to fuel motor vehicles located in the **High Risk Groundwater Use Area** of these targeted counties, Baltimore, Carroll, Cecil, Frederick and Harford, shall:

1. Submit required documents to demonstrate the storage system does not pose a threat; or
2. Within 180 days:
 - a. Test for leaks all spill catch basins and containment sumps.
 - b. Install three or more groundwater monitoring wells (2" diameter wells are acceptable).
 - c. Sample the site supply well and any existing monitoring wells.
3. Within one year test the storage system for vapor leaks.
4. Yearly:
 - a. sample the site supply well and any monitoring wells;
 - b. Test for leaks all spill catch basins.
5. Every Two Years test for vapor leaks, using the MDE protocol
6. Every five years test all containment sumps

Note: Owners of existing storage systems within a well head protection area have until January 1, 2010 to comply with the above requirements.

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Sampling:

Groundwater sampling must be performed by utilizing the test methods required by the regulations. When levels of concern are discovered those levels must be reported to the Department. Levels of concern are: ≥ 5 ppb Benzene, ≥ 1000 ppb Toluene, ≥ 700 ppb Ethylbenzene, $\geq 10,000$ ppb Xylenes and/or ≥ 20 MtBE.

*A storage system upgrade is where the tanks and/or 40% or more of the piping system is replaced.

**The High Risk Groundwater Use Area is all areas served by individual wells or within a well head protection area in Baltimore, Carroll, Cecil, Frederick and Harford counties.

**Please call the Oil Control Program at 410-537-3442 with any questions.
Visit our Web Site at www.mde.state.md.us/Programs/LandPrograms/Oil_Control/**

This fact sheet has been provided for informational purposes. This document is not intended nor should it be interpreted to be a regulation, as defined in Section 10-101, State Government Article. The MDE encourages you to read and understand the regulations that govern the operation of underground storage systems found in Code of Maryland Regulations 26.10. "Oil Pollution and Tank Management".