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10 Tank Management Tips

10 TANK MANAGEMENT TIPS

When deciding whether to install an underground storage tank (UST) or an aboveground storage tank (AST) for petroleum or hazardous substance storage, or when managing the daily tank operations, you need to consider the very different regulations related to ASTs and USTs.

These tips—based on federal regulations—will help you make informed decisions related to USTs or ASTs storing petroleum or hazardous substances.

Tip #1: Check with your state

States and territories (but not Indian lands) are free to impose more stringent requirements. Therefore, before you follow these suggestions, you must confirm their status with your state AST or UST authority.

Some UST owners or operators mistakenly think they can avoid environmental and safety requirements by changing to ASTs. However, ASTs are not regulated under any single federal regulatory scheme and are generally regulated on the local level by state fire codes and industry standards. In addition, many states have included ASTs in their UST regulatory program.

AST management programs are primarily administered by states. State regulations may require that an applicant submit an application for AST installation together with an application fee, site plan, and installation information for review and approval by the state agency.

States may also require a permit from the state fire marshal for gasoline and diesel fuel tanks; have stricter spill prevention planning, spill response, tank registration, inspection, and notification requirements; and require secondary containment.

Thirty-eight states, the District of Columbia, and Puerto Rico have approved UST programs. State program approval eliminates the duplication and confusion that result from having separate state and federal requirements, and provides states with the lead role in UST program enforcement. In states without approved programs, UST owners and operators must comply with the stricter of both federal and state standards, and the EPA works with state officials in coordinating UST enforcement actions.

Tip #2: Know which fire code applies

At a minimum, most ASTs need to meet state and local fire codes, which usually have some mix of construction, installation, operation, and maintenance requirements that are intended to prevent fires and other hazards that can come from mismanaged or substandard ASTs. For more information, check with your local authority having jurisdiction, such as your local fire marshal.

Current editions of major codes establish criteria for the equipment required, level of fire resistance, and separation of the tank from buildings and property lines. Each code, state, or local jurisdiction varies regarding definitions, minimum separation distances, tank sizes, or limitations imposed. However, a typical tank separation distance from a building is 50 feet on a 1-acre site, with reduced distances for smaller sites.

Tip #3: Tanks storing hazwaste follow different rules

Different sets of federal rules regulate tanks. To determine which set applies, you need to know whether the substance being stored or treated in the tank is a hazardous waste, a petroleum product, or a hazardous chemical.

Federal laws that regulate ASTs include the Clean Water Act (CWA), the Oil Pollution Act (OPA), the Clean Air Act (CAA), and the Resource Conservation and Recovery Act (RCRA).

The EPA established UST regulations under RCRA Subtitle I. USTs that store hazardous substances identified under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) are subject to the same requirements as petroleum UST systems.

Tanks that store hazardous waste are regulated under RCRA Subtitle C and are, therefore, not covered by the federal UST regulations.

Tip #4: Know if federal UST regulations apply to you

EPA's UST regulations apply to any person who owns or operates a UST or a UST system. A UST is any one or a combination of tanks that is used to contain an accumulation of regulated substances and has 10 percent or more of its volume (including piping) underground.

Federal rules exempt certain groups of tanks from the definition of a UST. Some exemptions are full and some are partial. Partially exempt facilities must comply only with release response, corrective action, and financial responsibility standards.

The following tanks are exempt from the definition of a UST:

- Farm or residential tanks of 1,100 gal or less capacity holding motor fuel used for noncommercial purposes;
- Tanks storing heating oil used on the premises where it is stored;
- Septic tanks;
- Pipeline facilities, including gathering lines;
- Surface impoundments, pits, ponds, or lagoons;
- Flow-through process tanks;
- Liquid traps or associated gathering lines directly related to oil or gas production and gathering operations; *and*
- Tanks on or above the floor of underground areas, such as in basements or tunnels.

The following tanks are fully excluded from federal UST regulations:

- Hazardous waste (but not hazardous substance) storage tanks;
- Regulated wastewater treatment tank systems;
- USTs with a capacity of 110 gal or less;
- Equipment or machinery that contains regulated substances for operational purposes, such as hydraulic lift tanks and electrical equipment tanks;
- USTs containing an insignificant amount of regulated substances; *and*
- Any emergency spill or overflow-containment UST that is emptied immediately after use.

The following tanks are partially excluded from federal UST regulations:

- Unregulated wastewater treatment facilities;
- ASTs associated with airport hydrant fuel distribution systems or field-constructed tanks;
- UST systems containing radioactive materials that are regulated; *and*
- Emergency generator systems at nuclear power generation facilities licensed by the Nuclear Regulatory Commission and subject to design and quality criteria in 10 CFR 50.

Many states require UST owners and operators to obtain an operating permit. Contact your state regulatory authority for specific permit requirements.

Tip #5: Recognize when a release occurs

Releases from UST systems can originate from one or more system components, including tanks, piping, and pumps, as well as from spills and overfills. A release includes visual or analytical verification, a failed line, or a failed tank tightness test.

Since most of the UST components are buried, methods other than sight and smell must be used to determine if a leak has occurred. Warning signals include:

- Unusual operating conditions, such as erratic behavior of the dispensing pump;
- Results from leak detection monitoring and testing;
- Reports from fuel delivery drivers; *and*
- Complaints from neighbors about vapors in their basements or about water that tastes or smells like petroleum.

Tip #6: Follow release reporting requirements

You must immediately report UST hazardous substance spills that meet or exceed their reportable quantities to the National Response Center at 800-424-8802. State authorities generally must be notified within 24 hours of petroleum spills and overfills that are over 25 gallons or cause a sheen on surface water, spills or overfills of hazardous substances that equal or exceed the reportable quantity under CERCLA, and suspected releases. Check with your state to determine applicable reporting time frames.

If the spill or overfill is smaller than its reportable quantity and is immediately contained and cleaned up, it does not have to be reported.

Tip #7: Keep repair records

Keep records of any repairs for as long as the tank is in service.

A leaking UST may be repaired if standard industry practices are followed. After completion of the repair, the tank must be tested within 30 days. A cathodically protected tank must be tested within 6 months of repair.

Damaged or corroded metal pipes must be replaced, not repaired. However, a loose pipe may be tightened. Fiberglass-reinforced plastic pipes may be repaired in accordance with manufacturer's instructions or national standards if tested within 30 days after the repair.

Tip #8: Use smaller tanks for used oil

Used oil rules are based on the presumption that the used oil will be recycled. To simplify leak detection requirements for the piping on USTs, use a 1,000-gal or smaller tank for collecting used oil.

Tip #9: Follow procedures for changing the contents of a UST

A change in the contents of a UST to an unregulated substance (such as water) is considered a change in service. Before implementing a change in service, you must:

- Notify authorities at least 30 days before beginning a change in service.
- Clean the tank, removing all liquid and accumulated sludge.
- Conduct a site assessment as provided in 40 CFR 280.72.
- If contamination is discovered, take corrective action.
- If no contamination is discovered, or after corrective action is complete, the tank may be refilled with the unregulated substance.

If you switch the contents of a UST to a regulated substance containing greater than 10 percent ethanol, greater than 20 percent biodiesel, or any other regulated substance identified by your state agency, you must notify the agency at least 30 days before making the switch. You must also demonstrate compatibility of the UST system with the new regulated substance by using:

- A certification or listing of the UST system equipment or components by a nationally recognized testing laboratory for use with the regulated substance;
- The equipment or component manufacturer's written approval; *or*
- Another option approved by the state agency.

Tip #10: Double up on spill responsibilities

Spill prevention, control, and countermeasure (SPCC) regulations apply to non-transportation-related facilities with a total aboveground oil storage capacity of more than 1,320 gal or buried oil storage capacity of more than 42,000 gal that, because of their locations, could reasonably be expected to discharge oil into navigable waters of the United States or adjoining shorelines.

If possible, have more than one person at your facility who is familiar with spill prevention and response procedures. This enables you to have backup protection to account for vacations, sick time, and other absences.