The National Park Service
EnviroFact Sheet

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Managing Fuel Storage Tanks (G-7)

DRAFT

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Fuel storage tank management regulations apply to park operations depending upon whether the tank is aboveground or underground.

It is estimated that the NPS manages fuel in over 4,000 USTs and ASTs nationwide. While the balance has changed as USTs have been replaced with newer ASTs, USTs still represent a significant environmental liability if managed improperly**.**

By definition, an UST has at least 10% of its volume located underground. For fuel storage tanks at parks, the federal UST regulations do **not** apply to:

- USTs with a capacity of less than 1,110 gallons; and
- Tanks storing heating oil to be used on the premises.

ASTs also pose potential problems. If located outdoors, a leak will be released directly to the surface, thus quickly reaching soil or surface water. A review of potential impacts from both types of tanks should be conducted before deciding to install either an UST or an AST.

FOR MORE INFO…

EPA's *Musts for USTs: A Summary of the Federal Regulations for Underground Storage Tank Systems*: http://www.epa.gov/swerust1/pubs/musts.htm.

NPS Fuel Management Technical Guide: http://pfmd1.nps.gov/EMP/hazmat/fuel/index.cfm

APPLICABLE REGULATIONS

Since 1988, fuel storage tank owners/operators have been responsible for ensuring that all newly installed underground storage tank (UST) systems meet construction, corrosion protection, release detection, and spill/overfill prevention requirements specified in 40 CFR 280. By December 22, 1998, all owners/operators of *existing* UST systems were required to upgrade, replace, or close tanks not in compliance with UST technical requirements under 40 CFR 280. The regulations apply to UST systems storing petroleum, petroleum products, or a hazardous substance. All new tanks, piping, and related structures/equipment must also be properly installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and in accordance with the manufacturer's instructions. Under 40 CFR 281, states are authorized to implement their own UST regulations, which may be more stringent that the federal regulations.

Occupational Safety and Health Administration (OSHA) regulations and National Fire Protection Association (NFPA) 30 also apply to the storage of flammable and combustible liquids in aboveground storage tanks (ASTs) and USTs. State and local fire codes, and national, state and local building codes may also apply.

Under the Underground Storage Tank Compliance Act of 2005 (USTCA), EPA and the states are required to develop guidance and regulations that address operator training, secondary containment, and fuel delivery prohibitions; these changes will likely take affect in 2008.

TECHNICAL REQUIREMENTS FOR USTs

UST system upgrading consists of adding corrosion protection and installing devices to protect against content spills and overfills. All new and existing tanks must conform to those requirements. These technical requirements are designed to reduce the chances of releases, detect leaks and spills when they do occur, and secure a prompt cleanup. UST owners and operators are responsible for reporting and cleaning up any releases. The following UST regulatory requirements must be followed:

- Provide corrosion and associated underground piping protection for tanks;
- Provide proper release detection for tanks and associated underground piping;
- Register USTs with proper authorities (state and/or federal);
- Conduct leak detection testing and release detection monitoring;
- Perform required maintenance on and calibration of electronic tank leak detection devices; and
- Maintain records of leak detection and leak detection device maintenance.

REPORTING AND RECORDKEEPING REQUIREMENTS FOR USTs

Owners and operators of UST systems are required to cooperate fully with inspections, monitoring, and testing conducted by the regulatory authority in accordance with the provisions of 40 CFR 280.34. Additionally, owners and operators must also submit the following information to either the state or EPA:

- Certification of installation for new UST systems;
- Reports of all releases including suspected releases, spills and overfills, and confirmed releases;
- Corrective actions planned or taken including initial abatement measures, initial site characterization, free product removal, investigation of soil and groundwater cleanup, and a corrective action plan; and
- A notification before permanent closure or change in-service.

Some states or counties may have additional registration and reporting requirements.

TECHNICAL REQUIREMENTS FOR ASTs

Tanks not designed for underground service and not exceeding 2,500-gallon capacity may be used aboveground. OSHA regulations at 29CFR 1910.106 stipulate AST spacing requirements, along with opening, venting, containment, drainage, and emergency relief requirements. Additional AST requirements are discussed in the EnviroFact Sheet – "SPCC Plans (G-8)"

The American Petroleum Institute (API) has written several industry consensus standards related to the design, construction and maintenance of ASTs and their associated piping systems (see list under checklist item 7). National fire and building codes may also apply, depending on the state where the AST is located.

FUEL STORAGE TANK MANAGEMENT COMPLIANCE CHECKLIST	
Checklist Item	**Notes**
1. Ensure that an inventory of all tanks, above and underground, is available and up-to-date. The inventory should include: • Tank type (AST/UST), • Tank location, • Size, • Tank status (i.e., active or closed), • Contents (e.g., No. 2 fuel oil, gasoline, etc.), • Age, • Construction, • Use (e.g., vehicle fueling, residential heating, etc.), • Leak detection method, • Corrosion protection, and • Overfill equipment (including secondary containment).	
2. Ensure that state and local environmental agencies have been contacted to determine fuel storage tank requirements applicable to UST and AST systems at federal facilities, in general, and park operations, in particular.	
3. Ensure that fuel storage tanks are properly registered with the state or local authority (i.e., local fire marshal's office), if required.	
4. Ensure that all UST systems regulated under 40 CFR 280 were upgraded by December 31, 1998.	
5. Ensure that all UST systems regulated under 40 CFR 280: • Have the proper release detection devices, • Are inspected properly, and • Have been properly closed (if applicable).	
6. Determine which national fire code is used by your state when checking ASTs. Most state inspectors use one of the following: • *Uniform Fire Code (UFC)*, Appendix II-F, published by the International Fire Code Institute (IFCI); • National Fire Protection Association (NFPA) 30, *Flammable and Combustible Liquids Code*; • National Fire Protection Association (NFPA) 30A, *Automotive and Marine Service Station Code*; • *Building Officials Code Administrators (BOCA),* National Fire Prevention Code; and • *Southern Building Code Congress International (SBCCI) Standard Fire Prevention Code*.	
7. The American Petroleum Institute (API) has written several standards related to the design, construction and maintenance of ASTs and their associated piping systems. Some of these standards are included by reference in 29 CFR 1910.106. Determine if any of those standards apply to tanks at the park: • API Standard 620, *Design and Construction of Large, Welded Low-pressure Storage Tanks*; • API Standard 650, *Welded Steel Tanks for Oil Storage*; • API Standard 653, *Tank Inspection, Repair, Alteration and Reconstruction*; • API Standard 2000, *Venting Atmospheric and Low-pressure Storage Tanks*; • API Recommended Practice (RP) 570, *Piping Inspection*; • API RP 651, *Cathodic Protection for Aboveground Petroleum Storage Tanks*; • API RP 652, *Lining of Aboveground Petroleum Storage Tanks*; • API RP 2003, *Protection against Ignitions Arising out of Static, Lightning, and Strong Currents;* and • API Publication 2015, *Safe Entry and Cleaning of Petroleum Storage Tanks*.	