



# Safe Operating Procedure

(Revised 10/22)

## ABOVEGROUND PETROLEUM STORAGE TANKS

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### Introduction

Aboveground storage tanks (ASTs) are used to store petroleum products at several UNL locations. For example, ASTs may be used to store fuels for stationary engines (e.g., irrigation pumps, building heaters, grain dryers, emergency generators, etc.) or motor vehicles (i.e., fueling of cars, pickups, tractors, etc.). Sometimes ASTs are used to store used oil. The purpose of this SOP is to provide a summary of regulatory requirements for storage of petroleum products in ASTs. This SOP is limited to ASTs that are greater than 55 gallons in size and which are used to store petroleum products.

This SOP does not address other fuel regulations promulgated by other agencies (e.g., Department of Revenue - taxation and labeling regulations, etc.) or ASTs used to store hazardous substances.

### Regulatory Authorities

A summary of applicable United States Environmental Protection Agency (EPA), Nebraska State Fire Marshal (SFM), and Nebraska Department of Environment and Energy (NDEE) regulatory requirements follows.

- EPA's Spill Prevention Control and Countermeasures (SPCC) regulations apply to all oil storage ASTs that are 55 gallons or greater in size; and which are located at a site that is subject to SPCC requirements because the aggregate quantity of oil stored exceeds the regulatory threshold. As of the date of this SOP, SPCC regulations apply to ASTs located at City and East Campus Utility Plants, South Memorial Stadium, East Campus Tractor Test Laboratory, and certain sites at the ENREC.
- EPA also regulates certain aboveground and underground storage tanks under the Clean Air Act (CAA) (40 CFR Part 63 Subpart CCCCC). These regulations apply to a Gasoline Dispensing Facility (GDF), defined as any stationary facility which dispenses gasoline into the fuel tank of a motor vehicle, motor vehicle engine, non-road vehicle, or non-road engine, including a non-road vehicle or non-road engine used solely for competition; including, but not limited to, facilities that dispense gasoline into on- and off-road, street, or highway motor vehicles, lawn equipment, boats, test engines, landscaping equipment, generators, pumps, and other gasoline-fueled engines and equipment.

- Nebraska Title 153 – State Fire Marshal (SFM), incorporates by reference AST-related National Fire Protection Association (NFPA) codes and standards, which specify requirements for the design, installation, and operation of AST systems. A Tank Installation Permit must be obtained from the University Building Code Official/SFM prior to installing any petroleum or hazardous material AST great than 60 gallons. Compliance with Title 153 and installation permit terms is the responsibility of the University Building Code Official/SFM and is beyond the scope of this SOP.
- NDEE regulations require reporting of certain releases of petroleum to the environment (Nebraska Title 126, *Rules and Regulations Pertaining to the Management of Wastes*; Chapter 18, Releases of Oil or Hazardous Substances) and provide financial assistance for eligible cleanup expenses resulting from petroleum releases from tanks (Nebraska Title 200, *Rules and Regulations for Petroleum Release Remediation Action Reimbursement Fund*). NDEE also imposes certain management standards for ASTs used to store used oil pursuant to Nebraska Title 128, *Nebraska Hazardous Waste Regulations* (e.g., good condition and labeled with the words “Used Oil” if 25 gallons or greater in size).

## Types of Aboveground Storage Tanks

### Gasoline Dispensing Facility (GDF)

This classification encompasses UNL’s Transportation Services as well as tanks that are used for fueling on- and off-road mobile engines (e.g., automobiles, tractors, ATVs, etc.).

Pursuant to EPA CAA regulations, all GDFs, regardless of throughput, must adhere to management practices that minimize vapor releases to the atmosphere including, but not limited to:

- Minimizing gasoline spills.
- Cleaning up spills as expeditiously as practicable.
- Covering all open gasoline containers and all gasoline storage tank fill-pipes with gasketed seals when not in use.

In addition, GDFs must maintain a 3 yr record retention of fuel received (or dispensed) to demonstrate average monthly throughput. Average monthly fuel throughput is calculated as fuel received (or dispensed) during the past 365 days divided by 12.

### Oil-Burning Equipment

This classification includes ASTs that supply fuel oil to appliances and equipment, such as water heaters and boilers. These ASTs must be evaluated for SPCC applicability and may be subject to CAA regulations.

Special EPA and NDEE regulations apply to burning of used oil in heaters and similar devices. This activity may be regulated under CAA and waste management regulations. Consult EHS before burning any used oil. The designation of “oil-burning equipment” does not apply to internal combustion engines, oil lamps, or most portable devices.

**Stationary Combustion Engine**

This classification includes ASTs that supply fuel oil, typically diesel fuel, to stationary combustion engines, such as irrigation pumps, grain dryers, emergency generators, etc. These ASTs are subject to CAA regulations and must be evaluated for SPCC applicability. Consult EHS before purchasing, installing, rebuilding, or relocating any stationary internal combustion engine.

**Tank Design/Location Requirements****All Types of ASTs**

In general, any AST must be designed in accordance with UL or equivalent standards and must be constructed of steel. Additional requirements depend on classification of the tank (i.e., motor fuel dispensing, oil-burning equipment, etc.). NFPA requirements specify design and installation requirements and is beyond the scope of this SOP.

**Tank Installation Permits**

Contact EHS well in advance of the intended date of purchase or installation for review of all applicable regulatory requirements. Note: a Tank Installation Permit must be obtained from UNL's Building Code Official/SFM prior to installing or relocating any AST greater than 60 gallons in size.

**Spill Control Measures**

EPA's SPCC regulations apply to all oil storage ASTs that are 55 gallons or greater in size; and which are located at a facility that is subject to SPCC requirements because the aggregate quantity of oil stored exceeds the regulatory threshold.

For those ASTs that are subject to SPCC requirements, the following inspection and testing requirements apply:

- Visual inspections of the AST, surrounding area, and spill kits are conducted by EHS on an annual basis. Operations personnel conduct visual integrity inspections of the AST on a monthly basis, and visual inspections of rainwater discharge from secondary containment structures at each occurrence.
- API-certified inspectors conduct inspections (generally visual and quantitative or qualitative analysis) of field constructed AST systems on a regular basis (at least every five years).

If a facility is regulated under SPCC there are additional spill control procedural and equipment requirements such as determination of the available capacity of any AST prior to off-loading fuel and physical attendance at all times during off-loading of fuel. Refer to the site-specific SPCC plan for more information.

## Spills, Leaks, and Releases

### Incidental Oil Spill

An incidental spill is a manageable spill that poses no safety and health danger and is not likely to harm the environment. Incidental oil spill response procedures are as follows:

- Eliminate the source of the spill by up-righting drums or other containers, closing valves, or other similar actions.
- Prevent the oil from spreading or entering drains by absorbing flowing oil; diking the area with sandbags, elastomer mats, or elastomer berms; or covering flush storm drain inlets with an elastomeric mat.
- Spread absorbent over the surface of the spill working from the perimeter of the spill to its center. Socks and pillows work best on pooled liquid while pads have an advantage on thin layers of oil. Oil Sorb® will work in either situation but can be more difficult to clean up.
- Call EHS at 402-472-4925 during normal business hours or call the University of Nebraska Lincoln Police Department (402-472-2222) after hours if assistance in spill control and clean-up is necessary.
- Contaminated absorbents of less than 5 gallons/30 pounds containing diesel fuel, motor oil, bunker oil and non-PCB containing transformer oil can be disposed as normal trash. Absorbents from all gasoline and PCB transformer oil spills and volumes of absorbents greater than 5 gallons/30 pounds must be sent to EHS for disposal. Containerize spill residues (i.e., contaminated socks, pads, Oil Sorb®, etc.) and affix a Hazardous Material Collection Tag (HMCT).

### Emergency Oil Spill

The Incidental Oil Spill procedures must be modified for a spill that is an emergency. An emergency situation exists when:

- The spill has entered a sanitary or storm drain; or
- The spill has entered a ground or surface water; or
- The spill cannot be contained or stopped, or additional spill equipment is needed and is not immediately available.

In the case of an emergency spill, the person discovering it should perform the following once it has been determined that the situation is not life threatening:

- Take immediate action to stop the spill (i.e., shutting off valves, up-righting containers, etc.).
- Take action to prevent the spill from entering sewers or streams and to minimize the area affected. Such actions might consist of absorbing flowing oil or diking the area with sand bags, elastomer mats, or elastomer berms, etc.
- If located on UNL's City or East Campuses, call EHS at 402-472-4925 during normal business hours or call the University of Nebraska Lincoln Police Department (402-472-2222) after hours. For other UNL locations, contact local emergency response personnel.



- Remain in the immediate vicinity until EHS personnel arrive on-site and relieve you from duty.

In the case of an emergency spill that poses a threat to human health or property, immediately call “911” to summon outside emergency responders. Take only those actions to stop or minimize the spill that do not pose a threat to human health and evacuate the area as necessary.

### **Reporting**

EHS is responsible for reporting to local or state officials. Nebraska Title 126 requires reporting to NDEE of an oil release that:

- Is to the surface of the land in a quantity of 25 gallons or larger; or
- Is beneath the surface of the land in any quantity; or
- Impacts or threatens waters of the state or threatens public health or welfare.

All such releases must be immediately reported to EHS.

### **Removal from Service**

If removing an AST from service, the following requirements must be met:

- Removal of product from the tank (to the extent feasible and recognizing that some residues will likely remain in the tank). Product and residues are subject to disposal restrictions. Consult EHS for proper testing procedures and parameters.
- Rendering the tank’s atmosphere vapor-free.
- Protection of the tank from vandalism (generally meaning a fenced or secured area).

If selling the tank, notify potential buyers of the tank’s last contents. UNL may also require that the listing specifically contain no warranty as to the tank’s fitness for service. Selling and disposing should be in accordance with UNL asset management policies.