

UNIVERSITY OF TOLEDO

SUBJECT: ABOVEGROUND AND UNDERGROUND
STORAGE TANKS

Procedure No: HM-08-004

PROCEDURE STATEMENT

Existing aboveground and underground storage tanks, as defined below shall be used and maintained in accordance with 40 CFR Part 112, 280-281 & 302.4, 40 CFR Sec. 264.190, OAC Sec. 1301:7-9-09 et seq., OAC Sec. 3737-1-01 et seq. and the recommendations of the National Fire Protection Association.

PURPOSE OF PROCEDURE

To ensure compliance with applicable regulations, to prevent property loss and environmental impairment which may result from leakage, to prudently manage environmental risks, and to set forth accepted procedures.

PROCEDURE

Definition

An underground storage tank (UST) is any tank, including underground piping connected to the tank, that has at least 10% of its volume underground and an aboveground storage tank (AST) stores and dispenses its product above the surface of ground level.

HSC UNDERGROUND STORAGE TANKS (UST's)

Tank No.	Site†	Year of Installation	Material Stored	Total Volume	Material of Construction	Spill Protection			Spill Kit	Responsible Party
						SO*	SC	RD		
									SK	RP
1	HEB	1984	Diesel	8000	Fiberglas	Y	N	N/A	Y	Graff
3	HOS	1979	Diesel	10000	Fiberglas	Y	N	N/A	Y	Graff
*13	EDU	1977	Diesel	10000	Fiberglas	N/A	N/A	N/A	Y	Collins
*14	EDU	1978	Diesel	10000	Fiberglas	N/A	N/A	N/A	Y	Collins
15	FSB	2011	Diesel	25000	Fiberglas	Y	Y	Y	Y	Green

*One of those tanks is empty and closed in the ground.

HSC ABOVEGROUND STORAGE TANKS (AST's)

Tank No.	Site†	Year of Installation	Material Stored	Total Volume	Material of Construction	Spill Protection			Spill Kit	Responsible Party
						SO*	SC	RD		
									SK	RP
7	RHC	1985	Diesel	279	Steel	N	Y	N	Y	Graff
9	NWT	1997	Diesel	500	Steel	N	Y	N	Y	Collins
10	FSB	1998	Gas/Diesel	1500/500	Steel/Fiberglas	Y	Y	Y	Y	Collins
11	GMC	1998	Diesel	400	Steel	N	Y	N	Y	Graff
12	DOW	2006	Diesel	5000	Steel/Fiberglas	Y	Y	N	Y	Collins
16	EPG	2016	Diesel	10000	Steel	Y	Y	N	Y	Graff
17	EPG	2016	Diesel	10000	Steel	Y	Y	N	Y	Graff

MAIN CAMPUS

Tank No.	Site†	Year of Installation	Material Stored	Total Volume	Material of Construction	Spill Protection			Spill Kit	Responsible Party
						SO*	SC	RD	SK	RP
UST-2	Plant Operations	c. 1995	Unleaded Gasoline	10,000	FRP	Y	Y	Y	Y	Fulton
UST-3	Plant Operations	c. 1995	Diesel	10,000	FRP	Y	Y	Y	Y	Fulton
UST-4	North Engineering	c. 1993	#2 Fuel Oil	8000	FRP	Y	Y	Y	Y	Green
UST-5	Student Recreation Center	c. 1990	#2 Fuel Oil	3000	FRP	Y	Y	Y	Y	Graff
AST-1	Scott Park Campus	c. 1999	Unleaded Gasoline-Diesel	500/500	Steel encased in concrete	N	Y	N	Y	Collins
AST-2	Stranahan Arboretum	c. 1999	Unleaded Gasoline-Diesel	500/500	Steel encased in concrete	N	Y	N	Y	Collins
UST-7	Savage Arena	2008	#2 Fuel Oil	30,000	Fiberglass	Y	Y	Y	Y	Green

*SO - spill and overflow prevention

RD - release detection

SC - secondary containment

SK - spill kit

NA - not applicable

FRP - Fiberglass reinforced plastic

†Site - HEB, Health Education Building; DOW, Dowling Hall; HOS, Hospital; FSB, Facilities Support Building; ATP, Advanced Technology Park; PWH, Powerhouse, MTC, Medical Technology Center; EDU, Educare, EPG, Emergency Power Generator Building

For those tanks associated with properties leased to outside entities, it shall remain their responsibility to ensure compliance with appropriate regulatory requirements.

Requirements

Release Detection - Inventory Control reports shall be compiled (as described below) and submitted to the Environmental Health and Radiation Safety Department.

- Upon Request: Tank volume shall be manually measured using a gauge stick (or calibration chart) which converts tank level into gallons prior to filling and after filling is complete.
- For deliveries, tank volume shall be gauged before and after delivery, to adequately guard against overfilling. The input shall be accurately recorded.
- Product dispensing meters shall be calibrated to record to within an accuracy of +6 cubic inches for every 5 gallons of product withdrawn, in accordance with industry standards.
- Wide variations in this accounting procedure will be reported immediately to the Safety & Health Department.
- The measurements of any water level in the bottom of the tank are made to the nearest one-eighth of an inch at a time frame determined by Facilities Maintenance.
- Cumulative data shall be reviewed by the Environmental Health and Radiation Safety Department annually.
- Tank Tightness Testing - Each underground storage tank shall undergo a tank tightness test as determined necessary.
- The aboveground storage tank at the Facilities Support Building shall be inventoried and monitored by the Facilities and Construction Department.

- In January of every year a BUSTR Operational Compliance Form must be completed by Environmental Health and Radiation staff for all USTs. These forms are retained by Environmental Health and Radiation Safety.

Spill and Overfill Prevention

The supervisors with appropriate authority are responsible for ensuring that releases due to spilling or overfilling are prevented, as follows:

- Prior to the transfer of material into a AST or UST by a fuel vendor, the appropriate supervisor shall ensure that the volume available in the tank is greater than the volume of product to be transferred and that the transfer operation is constantly monitored to prevent overfilling and spilling. The Vendor must notify the University of Toledo prior to fuel delivery. UT personnel must stand by during filing.
- Unexplained variances from Inventory Control Reports (i.e. 2 reports showing unexplained variance) and similar unusual operating conditions shall be reported to the State Fire Marshall by the Environmental Health and Radiation Safety Department.
- Spill prevention equipment must prevent the release of product to the environment when the transfer hose is detached from the fill pipe (for example, a spill catch basin).
- Overfill protection equipment must shut off flow into the tank when the tank is no more than 95% full, or alert the transfer operator when the tank is no more than 90% full by restricting the flow into the tank or triggering a high level alarm.
- Release detection for tanks must be able to detect a leak from any portion of the tank (and connected underground piping that routinely contains product). Selected method must be able to detect 0.2 gallon per hour leak rate, or a release of 150 gallons within one month with a probability of detection of 0.95 and a probability of false alarm of 0.05. Release detection for piping is required only where piping normally contains material. This requirement may be satisfied by automatic line leak detectors which alert the operator to the presence of a leak by restricting flow. (At present Emergency Generator Storage Tanks are not required to have release detection devices but the University of Toledo will, to the greatest extent possible, attempt to achieve the highest degree of protection and safety at all of its fuel storage locations.)
- Cathodic protection shall be in place for all steel piping servicing UST's on the campus of the University of Toledo and be inspected in accordance with State Fire Marshal and Manufacturers recommendations.
- As per the University of Toledo's Spill Prevention Control and Countermeasures Plan (SPCC), a spill kit shall be available at each location where fuel is delivered and dispensed.

Reporting Releases and Spills

University of Toledo must report a release or suspected release to BUSTR and the local fire department within 24 hours of discovery. However, if the spill/overfill is 25 gallons or less, and it does not reach a surface water body, and is cleaned up within 24 hours, you do not need to report a release to the Ohio Bureau of Underground Storage Tanks (State Fire Marshal).

In addition, if the spill is greater than 25 gallons, it must be reported to the OEPA (Toledo Environmental Services 419-936-3015), the Lucas County Emergency Planning Commission (LEPC) 419-936-3550, and possibly the U.S. Coast Guard (National Response Center 1-800-424-8802) if released to navigable waters (this includes sheen on drainage ditches and creeks leading to navigable waters such as Swan Creek, storm and sanitary sewer drains). The initial report must be made in 30 minutes with a full report to each agency within 30 days from the date of the spill.

Follow instructions in the University of Toledo's Spill Prevention Control and Countermeasures Plan (SPCC).

Additional Requirements

All documentation related to compliance with 40 CFR Part 280 shall be maintained by the Environmental Health and Radiation Safety Department to include the following:

- Documentation of UST system repairs;
- Recent compliance with release detection requirements; and
- Results of the site investigations conducted at permanent closure of UST systems.

All renovations, repairs and tank closures must be conducted in accordance with 40 CFR Part 280.

Source: Safety & Health Committee

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