

<b>TUCSON FIRE DEPARTMENT</b>		<b>Section:</b> Standard Operating Guideline: ABOVE GROUND STORAGE AND UNDERGROUND STORAGE TANK INSTALLATION AND REMOVAL
<b>FIRE PREVENTION DIVISION</b> Page 1 of 4		<b>Issued:</b> 04-07-2020 <b>Revised:</b> 06-06-2023

**I. OBJECTIVES:**

The objective of this document is to outline the guidelines for approving underground Storage tanks (UST) and above ground storage tanks (AST) install and removal permit applications, including the associated inspections.

**II. POLICY:**

The Tucson Fire Department Fire Prevention Section shall be responsible for the enforcement of all Tucson Fire codes that pertain to flammable and combustible liquids.

**III. PROCEDURES:**

**A. PERMIT**

A permit is required to install or remove a UST or AST. Applicants must obtain a permit for the installation or removal of an UST or AST from the Tucson Fire Department. The permit plans shall include the following:

1. UST Install

- A site plan that includes the locations of the UST and associated fueling system equipment. The site plan shall include adjacent structures and setbacks. The site plan shall also include the location of the barrier fence around the construction site.
- Manufacturer manuals/cut sheets of UST and associated fueling system equipment (i.e., product lines, adhesive type, dispensers, UDC's, sumps). All equipment associated with Install shall be of a recognized listing. Contractor license number and ADEQ certification number.

2. UST Removal

- A site plan that includes the location of the UST. The site plan shall include adjacent structures and setbacks. The site plan shall also include the location of the barrier fence around the construction site.
- Documentation from Arizona Department of Environmental Quality of plans to remove UST.
- Contractor license number and ADEQ certification number.

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3. AST Install

- A site plan that includes the locations of the AST, associated fueling system equipment, and all necessary vehicle impact protection if needed. The site plan shall also include adjacent structures and setbacks.
- Manufacturer manuals/cut sheets of AST and associated fueling system equipment. All equipment associated with the Install shall be of a recognized listing.

4. AST Removal

- A site plan that includes the location of the AST. The sight plan shall include adjacent structures and setbacks.

**B. INSPECTIONS**

All UST and AST installations and removals shall be inspected by the Tucson Fire Department. Inspections shall involve the following:

1. UST Install

- Proper barrier is in place to secure construction site from the public.
- All utilities have been staked.
- Verify contractor has proper Arizona Department of Environmental Quality identification.
- Proper measures have been taken to avoid excavation pit collapse.
- Dispenser shall be secured to the ground and shear valves shall be secured. All dispenser piping shall be secure. Proper warning labels per the TFC 2018 Fire Code shall be installed on dispensers. Hoses shall not be in contact with the ground. Dispenser nozzle shall not be within 5’ of an attendant in a kiosk. Emergency stop shall be tested while dispensing fueling product from dispenser hose.
- Fire extinguisher with a minimum rating of 20A:20BC shall be on site during entire construction process.

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- All electrical work requires an electrical inspection from the City of Tucson Developmental Services Department.
- Final approval from Arizona Department of Environmental Quality is required for final approval from The Tucson Fire Department.

## 2. UST Removal

- Proper barrier is in place to secure the construction site from the public. All utilities have been staked.
- Fire extinguisher with a minimum rating of 20A:20BC rating available.
- Verify contractor has proper Arizona Department of Environmental Quality identification.
- UST shall have interior oxygen levels monitored by a gas monitor and Oxygen levels shall be below 7% before removal.
- UST openings shall be plugged and have one 1/8" diameter opening for pressure equalization before removal.
- Control of UST shall be maintained while tank is being removed from the excavation pit (e.g., tethered)
- .Once removed from excavation pit, UST shall be placed on secure surface and measures shall be taken to keep tank stationary.
- UST shall be removed from construction site and taken to approved facility for destruction. Destruction of UST on site shall only by approved by Tucson Fire Department.
- UST shall not be left onsite overnight, unless given approval by Tucson Fire Department.

## 3. AST Install

- AST, AST equipment, and location correspond with approved permit plans.

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- Verify AST is installed according to permit plans:
  - a) Location of AST.
  - b) Emergency stop located no further than 100' from AST and no closer than 20' from AST.
  - c) 20A:10BC extinguisher is located within 75' of AST.
  - d) Vehicle impact protection meets TFC 2018 specifications.
  - e) AST warning labels meet TFC 2018 specifications.
  - f) 5 gallon spill containment installed.
  - g) Venting that meets TFC 2018 specifications.
  - h) Overfill protection
- Emergency stop shall be tested while dispensing fueling product from dispenser hose.
- All electrical work requires an electrical inspection from the City of Tucson Developmental Services Department.

#### 4. AST removal

- Verify contractor has triple rinse documentation. Verify contractor has documentation on purging/inerting of AST. Dry ice or Carbon Dioxide/Nitrogen are the acceptable methods of purging/inerting the tank.
- AST shall have interior oxygen levels monitored by a gas monitor and Oxygen levels shall be below 7% before removal
- .AST openings shall be plugged and have one 1/8" diameter opening for pressure equalization before removal.
- All AST piping shall be removed.

## IV. REFERENCES

Exhibit 1: American Petroleum Institute-Closure of Underground Petroleum Storage Tanks

Exhibit 2: City of Tucson Administrative Directives – Above Ground and Underground Storage Tanks 4.01-5