UTAH

PETROLEUM STORAGE TANK (PST) OWNER/OPERATOR GUIDANCE DOCUMENT

195 North 1950 West
Salt Lake City, Utah 84114
801-536-4100
tanks.utah.gov

DERR COPY

Developed by the Department of Environmental Quality-Petroleum Storage Tank Section

UTAH DEPARTMENT of ENVIRONMENTAL QUALITY

February 2024

Table of Contents

INTRODUCTION

Regulations

- Energy Policy Act of 2005 initiated UST Operator Training Requirements
- 40CFR 280 Code of Federal Regulations cover the installation, operation and closure of USTs
- PST ACT, Utah Code Annotated (UCA), Section 19-6-407 and R311 authorizes the Division of Environmental Response and Remediation (DERR) to administer the Utah PST program
- Due to legislation passed in the 2021 session, DERR began regulating specific types of Aboveground Petroleum Storage Tanks (APSTs) on May 5, 2021. By statute (19-6-407).

ABC PST Operator

Class A Operator – an owner, operator, employee, or individual designated under Subsection R311-201 that has primary responsibility for the broader aspects of the statutory and regulatory requirements and standards necessary to operate and maintain the PST system

Class B Operator – an owner, operator, employee, or individual who will implement routine daily aspects of operation, maintenance, and recordkeeping for PST systems

Class C Operator – an employee who is generally the first line of response to events indicating emergency conditions

- ABC Operators requirements do not apply to aboveground storage tank (APST) owners at this time.

Class A Operator Responsibilities

- Have a general knowledge of PST systems
- Ensure that PST records are properly maintained
- Ensure proper response to and reporting of emergencies caused by releases or spills from PSTs
- Ensure that class B and class C operators are trained and registered
- Ensure that annual PST fees are paid
- Maintain PST system records

Class B Operator Responsibilities

- Ensure that on-site PST operator inspections are conducted according to the requirements of Subsection R311-201-12
- Ensure that PST release detection is performed
- Ensure that the status of the PST system is monitored for alarms and unusual operating conditions
- Perform required Utah monthly inspections
- Ensure that proper release detection and other records are kept and made available for inspection
- Ensure that spill prevention, overfill prevention, and corrosion protection requirements are met
- Be present for any compliance inspections, or designate another qualified individual
- Ensure that suspected releases are properly documented
- Ensure that class C operators are trained and documented and present during PST operation hours

Utah Third Party Class B Operators

- Shall be trained and registered in accordance with Subsection R311-201-12 and shall be certified in accordance with R311-201-12 as:
  - An PST Tester, or
  - An PST Installer as either a general installer or service/repair technician, or
  - Meet the training requirements of a certified PST inspector and document comprehensive or general liability insurance with limits of $250,000 minimum per occurrence

Class C Operator Responsibilities:

- Be present at the site at all times during normal operating hours
- Monitor product transfer operations to ensure that spills and overfills do not occur
- Properly respond to alarms, spills, and overfills
- Notify class A and/or B operators and appropriate emergency responders when necessary
- Act in response to emergencies and other situations caused by spills or releases from an PST system that pose an immediate danger or threat to the public or to the environment, and that require immediate action

PST Operator Training and Registration Requirements

Training

- Class A, B and C operators must be trained
- Class A and B operators must successfully complete an approved training course within 30 days of assuming work duties
- Class B operators may train a C operator

Registration

- A and B operators must
  - Complete an approved training course
  - Pass State administered examination
  - Submit an application
  - Pay applicable fees
- C operators
  - No registration or fees are required for the class C operators

Renewal and Reciprocity

Renewal of Registration

- Class A and B operators must apply for renewal of registration every three years
- Pay applicable fees
- No class or test is required
- If an applicant's registration has lapsed for more than two years, the applicant must go through the registration process as if it were their initial registration

Reciprocity

- If the DERR determines that another state's operator training program is equivalent to Utah's program, it may be accepted in lieu of the Utah program with the following provision:
  - Must take the state approved examination
  - Must submit a registration application and pays fees

Violations requiring Re-training

- Class A operator may require re-training within 90 days if the facility is found to be out of compliance due to:
  - Lapsing of the Certificate of Compliance
  - Failure to provide acceptable financial responsibility
  - Failure to ensure that the class B or C operators are trained and registered

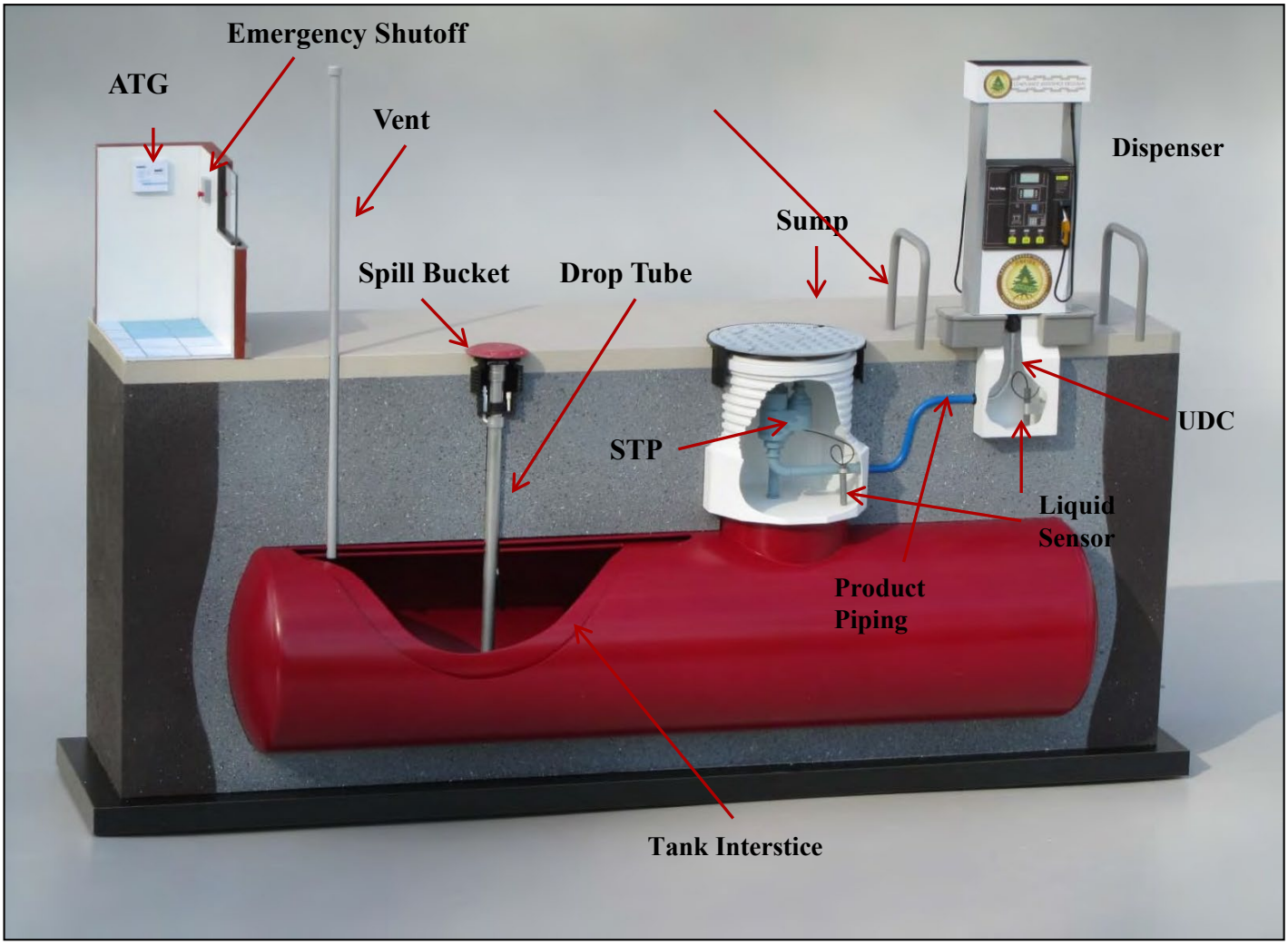
- Class B operator may require re-training within 90 days if the facility is found to be out of compliance due to:
  - Failure to maintain spill and overfill prevention
  - Failure to maintain corrosion prevention
  - Failure to maintain leak prevention
  - Failure to perform PST operator monthly inspections
  - Failure to ensure that the class C operators are trained, registered and on site during facility operation hours

Re-training Requirements

- Re-training must occur within 90 days of violation
- Class A and B operators must successfully complete an approved training course, pass an examination, submit an application and pay fees
- If the documentation of training is not received, the facility's Certificate of Compliance may be revoked (R311-201)

PST SYSTEM COMPONENTS

UST System



Construction of Tanks

- Fiberglass Reinforced Plastic (FRP)
- Composite – clad or jacket
- Steel – cathodically protected and/or lined
- Single or double walled

All underground storage tanks installed after October 2008 must be double walled and perform interstitial monitoring. This includes Emergency Generator Tanks.

Double-Walled (DW) USTs

- Interstice can be equipped with an interstitial sensor for release detection
- DW Tanks usually have an interstitial riser which is accessible from the tank top
- A DW tank interstice can be either dry, or contain a brine solution

Under Dispenser Containment (UDC)

- Under dispenser containment sumps prevent fuel from reaching the soil
- Shear Valves – prevent hazards caused by collision or fires at the dispenser when properly anchored
- Liquid Sensors – Detect liquid in the containment sumps
- Dispensers installed after October 2008 must have under-dispenser containment. The UDC must be liquid-tight on its sides, bottom, and at any penetrations. UDCs must allow for visual inspection and access to the components in the containment system or be periodically monitored for leaks from the dispenser system

Update

- All single-walled UDCs that are used as part of an interstitial monitoring system must be tested every three years.

Shear Valve

PST SYSTEM COMPONENTS - SUMPS

Tank Top Containment Sumps

- Prevent product released from the piping, Submersible Turbine Pump (STP) or other components from reaching the soil or groundwater
- Must be liquid-tight on its sides, bottom and at all penetrations
- All tank top containment sumps and any other single-walled sumps used for interstitial monitoring of piping must be tested every three years.

Requirements for Containment Sumps After 2008

- Be present where piping connects to a dispenser
- Be present at the submersible pump or where piping connects to the tank
- Be present where single-walled piping connects to double-walled piping
- Be monitored for monthly releases

Automatic Tank Gauge (ATG)

- An ATG system consists of a probe permanently installed in a tank and wired to a monitor to provide information on product level and temperature
- An ATG monitoring system can provide operators with alarm and sensor status, inventory, and some can perform leak detection testing
- Common ATG systems are Veeder-Root and Incon
- **ATGs must be functionality tested every year**

PST SYSTEM COMPONENTS - ATG

Automatic Tank Gauge Systems:

(ATG may provide one or more of the following)

- Monitor the tank inventory electronically via an in-tank probe
- Provide in-tank release detection using the in-tank probe
- Provide interstitial monitoring on the tank using a sensor
- Monitor the interstitial piping using a containment sump sensor
- Monitor piping release detection via an electronic line leak detector
- Monitor Under Dispenser Containment (UDC) and containment sump sensors

ATG In-tank Probe

Sump Sensor

PST SYSTEM COMPONENTS – Vapor Recovery

Vapor Recovery

- Stage I Vapor Recovery collects vapors at the tank top and is required at most gasoline dispensing facilities
  - R307-328 requires any gasoline tank that dispenses 10,000-gallons or more in any one calendar month is required to have stage I vapor recovery.
  - Facilities that fail to have vapor recovery on tanks that fall under the requirement may be subject to enforcement actions and/or fines by the Division of Air Quality.

- Stage II Vapor Recovery collects vapors at the dispenser/vehicle, and is not required in Utah

PST SYSTEM COMPONENTS – Vapor Recovery

Two Point Vapor Recovery

- Two Point Vapor Recovery consists of two attachment points (one for liquid delivery and one for vapor return to the truck)

PST SYSTEM COMPONENTS – Vapor Recovery

Single Point Vapor Recovery

- Coaxial, or Single-Point Vapor Recovery System – the filling and vapor consist of a single attachment point

PST SYSTEM COMPONENTS – Vapor Recovery

- Pressure relief valves/pressure vent caps are required as part of the Vapor Recovery System

Update

- **Any gasoline tank with a capacity of 250 gallons or more must have a pressure relief valve/pressure vent cap**
- **These pressurized vent caps must be tested by a certified tester every three years. R307-328.**

Spill, Overfill, and Corrosion Protection

- **Spill Prevention** - is containment around the fill pipe that catches small spills that occur during delivery
- **Overfill Prevention** – devices either shut off product flow, restrict product flow or alert the delivery operator with an alarm when the tank is close to being full
- **Corrosion Prevention –** a system designed to protect a steel tank and piping from corrosion

Secondary Containment

Provides a convenient means of recovering released product, makes it easier to detect and contain a discharge from the tanks or piping, and provides a space that can be monitored for the presence of releases.

- **Spill buckets**
- **Tank top sumps**
- **Under dispenser containment**

Spill Buckets

- Liquid tight containment that surrounds the fill pipe
- Spill Buckets typically range in size from 5 to 25 gallons
- There is no minimum capacity requirement for spill buckets
- PSTs that receive 25 gallons or less per delivery do not require a spill bucket
- Must be clean and dry, free of debris, no holes or cracks or deformation
- You must test or monitor your spill prevention equipment
  - Single-walled Spill Buckets must be tested at least every three years for liquid tightness. The test must be conducted according to a code of practice or manufacturer's instructions
  - Double-walled Spill Buckets may not require testing if they conduct periodic interstitial monitoring.
- You must inspect your spill prevention equipment at least every 30 days as part of your walk through inspection (or before each delivery if you receive deliveries less frequently than every 30 days)

Double Walled Spill Buckets

- DW spill buckets should have a monitoring gauge.
- The spill bucket will not have to be tested every three years if
  - The gauge is checked and recorded once a month during the Monthly inspection
  - The gauge is indicating zero
  - The bucket is not cracked or deformed

Overfill Protection

- Is designed to stop product flow, reduce product flow or alert the delivery person that the tank is almost full
- Overfill prevention equipment must automatically shut off when the tank is no more than 95% full
- Overfill devices are not required with transfers of fuel 25 gallons or less
- Your overfill prevention equipment must be tested at least once every three years to ensure it will function properly to prevent overfills
- The inspection must be conducted according to a code of practice or manufacturer's instructions

Three types of overfill protection

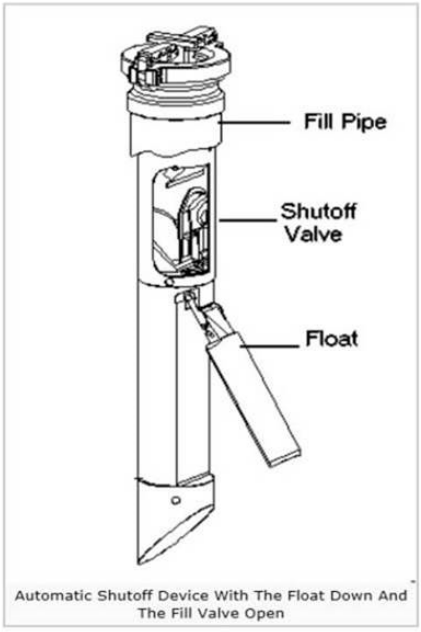
- High level alarm
- Automatic shut off
- Ball float valve

Overfill Alarm

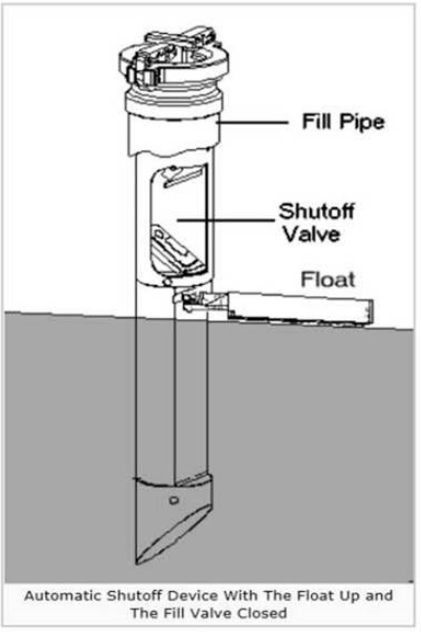
- Alert the delivery driver to an overfill with an alarm when the tank reaches 90% of fuel capacity
- Must be located where the driver can see and hear it easily
- Must be identified with a sign

Automatic Shutoff

- Often called Flapper Valve or Butterfly Valve
- Shut off device installed in the tank's fill pipe or drop tube
- Stops the flow of fuel into the PST when the fuel level reaches 95% capacity



Automatic Shutoff Device With The Float Down And The Fill Valve Open



Automatic Shutoff Device With The Float Up and The Fill Valve Closed

Corrosion Protection

- Cathodic protection on metallic components will help prevent the PST system from corroding and leaking product into the environment.
- All portions of the PST system that routinely contain product must be:
  - Constructed of a non-metallic material or
  - Isolated from the ground or
  - Be cathodically protected

Fiberglass Tanks

Steel Tank

- There are two forms of corrosion protection:
  - Galvanic
  - Impressed current (Rectifier)

RELEASE PREVENTION – Corrosion Protection

Galvanic

- Galvanic uses a coating along with an anode composed of magnesium or zinc attached to the tank

Steel Tank with anode

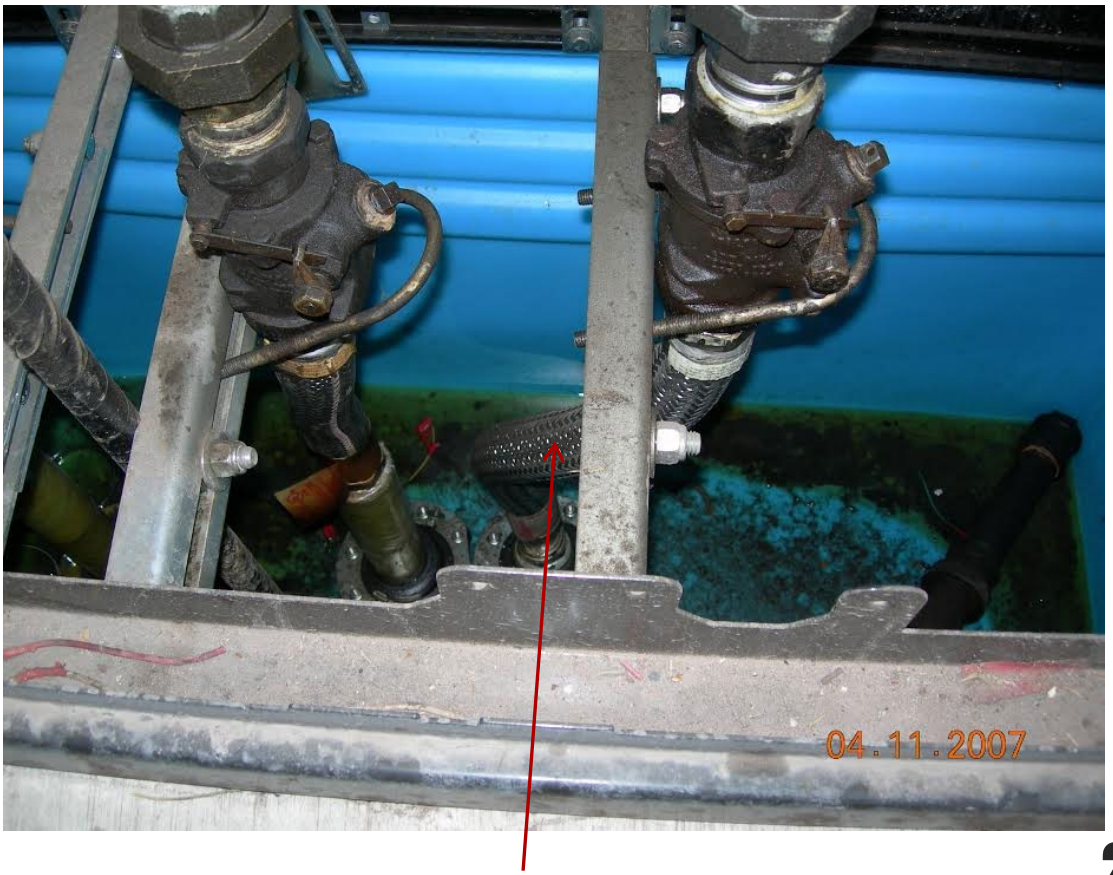
Impressed Current

- Impressed Current uses a rectifier and anodes to protect metal tanks and piping
- The rectifier must remain on 24 hours a day

Rectifier

Flex Connectors

- Flex Connectors – are a flexible braided piping, usually found under the dispenser or at the tank top sump
- Three ways to protect Flex Connectors
  - Not in contact with the soil
  - Booted
  - Cathodically protected



Flex Connector at a dispenser

Corrosion Protection Testing Requirements

- Must be tested within 6 months of installation and **every three years** by a Utah Certified CP tester
  - Must maintain the last two surveys done by a certified cathodic protection tester
- All repair records must be kept for the life of the UST system
- Impressed Current Systems (Rectifier) must be monitored every 60 days
  - Document that the rectifier is on by initialing or signing the log
  - The last 3 system checks must be maintained for compliance inspections

General Requirements

- Tanks must be monitored for releases at least every 30 days using a proper release detection method
- Your release detection method must be able to detect a release from any portion of the tank and connected underground piping that routinely contains product
- Release detection must be installed, calibrated, operated, and maintained according to the manufacturer's instructions
- All PST systems (including Emergency Generator Tanks) installed after Oct 2008 must have secondary containment and perform interstitial monitoring

Permanent Forms of Leak Detection are:

- Automatic Tank Gauging (ATG)
- Interstitial Monitoring (IM)
- Statistical Inventory Reconciliation (SIR)
- Groundwater and Vapor Monitoring (Contact the PST section if you have questions)

Non-Permanent Forms of Leak Detection are:

- Inventory Control with Tank Tightness Testing
- Manual Tank Gauging with Tank Tightness Testing

Automatic Tank Gauging (ATG)

- Consists of a probe permanently installed in a tank and wired to a monitor to provide information on product level and temperature
- ATG systems automatically calculate the changes in product volume that can indicate a leak
- The tank must contain a minimum amount of product to perform a valid test according to the manufacturer's specifications
- Have an owner's manual on site
- Keep the results of your ATG system monthly tests for 3 years
- **ATGs must be functionality tested once a year**

Example of an ATG monitor

Automatic Tank Gauging (ATG)

Two types of ATG monitoring

- Continuous In-tank Leak Detection
  - Continuous monitoring
  - Allows for around the clock fueling

- Static/Shutdown Testing
  - Requires the system to be shut down for a required amount of time for testing

PASS – FAIL – INCONCLUSIVE

- **Pass -** Everything is OK
- **Fail** - If you get a failed monthly test (.2gph test) it must be justified within 24 hours
  - Run another test
  - Contact your service provider for assistance
  - If a failed test cannot be justified the DERR may require additional follow-up and a tank tightness test
- **Inconclusive/other than Pass or Fail**
  - Contact your service provider for assistance

Interstitial Monitoring

- All new tank installations must have secondary containment on tanks and piping and perform interstitial monitoring
- Secondary containment provides a barrier between the tank/piping and the environment
- Monitors are used to check the area between the tank/piping and the barrier for leaks and alert the operator if a leak is suspected
- Keep liquid status reports for each month
- Ensure that all sensors are located at the lowest point in all sumps

Sensor Reports

- "Normal" is good
- For Interstitial Monitoring you should be getting a "Liquid Status Report"
- Anything other than "normal" means there is a problem
- In many cases the monitor will signal an alarm
- Contact your maintenance provider
  - If the alarm can not be justified contact the DERR within 24 hours

LEAK DETECTION – TANKS

Testing Requirements for electronic and mechanical leak detection components

You must perform annual functionality tests on all line leak detectors (LLD)

- Mechanical LLD must be tested at installation and annually
- Electronic LLD must be tested at installation and annually

As of Oct 13, 2018 you must perform annual release detection equipment testing on mechanical and electronic components, including: automatic tank gauges and other controllers, monitors, probes and sensors.

- ATG and other controllers
  - Test alarm
  - Verify system configuration
  - Test battery backup
- Probes and Sensors
  - Inspect for residual build up
  - Ensure floats move freely
  - Ensure it is not damaged
  - Ensure cables are free of kinks and breaks
  - Test alarm and communication with controller
- Automatic Line Leak Detectors (electronic and mechanical) must be tested by simulating a leak

Tests must be performed according to the manufacturer's instructions, or a code of practice developed by a nationally recognized association or independent testing laboratory.

Statistical Inventory Reconciliation (SIR)

- SIR uses sophisticated computer software to conduct a statistical analysis of inventory, delivery and dispensing data
- You must supply the SIR provider with data each month
- Most SIR methods analyze both tanks and lines
- Two ways to collect data
  - Manually stick the tank
  - Using an ATG or other tank monitoring system

Pass – Fail - Inconclusive

- **Pass** – Is good
- **Fail** – If you get a failed monthly test you must contact the DERR within 24 hours and do the following:
  - Start an investigation
  - Contact your service provider for assistance
  - You have 7 days to justify the “fail”
  - If the fail cannot be justified the DERR may require a tank tightness test or additional investigation
- **Inconclusive** –Two consecutive inconclusive tests will be treated as a **Failed Test**.

Inventory Control and Tank Tightness Testing

Inventory control involves taking measurements of tank contents and recording the amount of product pumped each operating day, measuring and recording tank deliveries, and reconciling all this data at least once a month.

- This method includes tank tightness testing annually
- Can be used for tanks installed after 1998 and before 2008

Manual Tank Gauging

- Involves taking the tank out of service each week (up to 36 hours at a time) during which the contents are measured twice at the beginning and end of the test period
- The measurements are compared to a weekly and monthly standard to determine if the tank is tight

Two Methods of Fuel Dispensing

- Pressurized piping – uses a submersible turbine pump (STP)
- Suction
  - Safe Suction Piping
  - US Suction

STP - pressurized

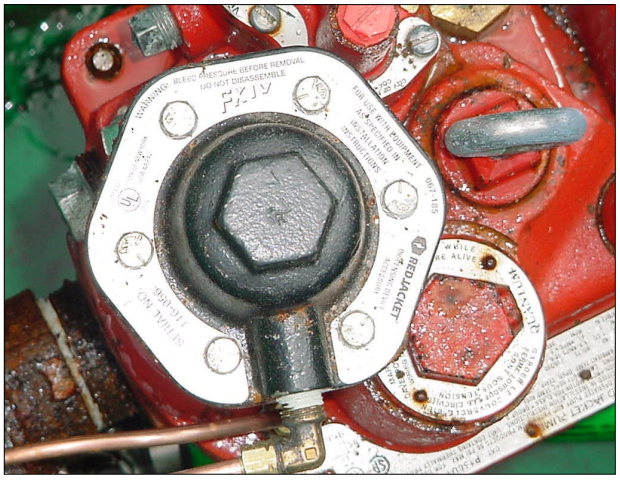
pump under dispenser - suction

LEAK DETECTION – Line Leak Detectors

Line Leak Detectors are designed to detect a catastrophic release from pressurized piping

- Mechanical (restricts product flow)
- Electronic (shuts off product flow)
- **Both Electronic and Mechanical Leak Detectors must be tested for functionality/simulated leak test at installation and every year by a certified PST tester**

Electronic LLD



Mechanical LLD

Piping Testing Requirements

- **Pressurized** (Pressurized piping must have a Leak Detector and one of the following forms of leak detection)
  - Annual line tightness test at .1 gph leak rate at 1.5 times the operating pressure of the product line

  Or
  - Monthly monitoring (.2 gph, using Interstitial Monitoring or SIR)
  - The ELLD has performed a .2 gph test, at least once a month for 12 months
  - IM – liquid status report printed or manual log completed at least once a month for 12 months
  - SIR reports available for the past 12 months
- **Suction – Two types**
  - US suction – has a check valve at the tank, requires a line test every 3 years
  - Safer Suction – release detection is not required for safe suction if the system operates at less than atmospheric pressure, the piping slopes back toward the tank and there is only one check valve in the system located under the dispenser

Note: All line tightness tests and leak detector tests must be performed by a Utah certified PST tester.

EMERGENCY SHUTOFF

- R311-203-8
- Facilities that are open to dispense fuel at times when no employee is on site must have:
  - A sign posed in a conspicuous place, giving the name and telephone number of the owner, operator, or local emergency responders
  - Have an emergency shutoff device in a readily accessible location, if the facility dispenses fuel

Monthly Inspections

- By rule, each PST facility must have an on site operator inspection every 30 days
- The inspection must be performed by or under the direction of the designated class B operator
- The class B operator must sign all monthly inspection forms
- Must use the approved PST Operator Inspection – Utah form found on the DERR website (undergroundtanks.utah.gov) or another form approved by the DERR

PST OPERATOR INSPECTIONS

UST Operator Inspection - Utah

YEAR _____

Facility Name	Facility ID
Address	Primary Class B Operator
NAME(S) AND INITIALS OF PERSON(S) CONDUCTING MONTHLY INSPECTIONS:	

Please respond to ALL of the following questions with a Y (Yes), N (No), or NA (Not Applicable) answer.

	Months of the Current Year	J	F	M	A	M	J	J	A	S	O	N	D
	Monthly Inspection – Release Detection												
1	Release detection equipment is operating with no alarms or other unusual operating conditions.												
2	Records of release detection (tanks and piping) are reviewed and current.												
	Monthly Inspection – Spill Prevention Equipment												
3	Equipment is undamaged, intact and free from defects.												
4	Equipment is free from debris, water, or product.												
5	Fill Pipe is unobstructed.												
6	Fill cap is un-broken and is securely on the fill pipe.												
7	Double walled spill prevention equipment - Interstitial area is free from leaks.												
	Initials of person performing Inspection.												

	Annual Inspection – Containment Sumps	Date of annual Inspection	
8	Secondary Containment Sumps (STP, Dispenser and Transition)	Visual Inspection of sump indicates no damage and it is free from debris, water and fuel.	
		The penetration fittings for conduits and piping entering the STP Sumps are intact.	
9	Double Walled Sumps	Interstitial area is free from leaks.	
10	Hand-held release detection equipment	Hand-held release detection equipment (bailer, gauge stick, etc.) is serviceable and operable.	

I certify under penalty of law that I am the Class B Operator referenced above and that I am familiar with information on this form and that it is true, accurate and was completed in accordance with R311-203-7.

Signature of the Primary Class B Operator (Sign this document after the last inspection of the Current Year) B Operator #	Date

Comments/Follow up:

Turn over for record of Interstitial Monitoring visual inspections and Impressed Current rectifier checks.

Filling Out The Inspection Form

General Instructions

- Fill in the Year, Facility Name, Facility ID#, Address, print the name of the primary Class B operator.
- Questions 1-7 use Y(Yes), N(No), or NA(Not Applicable)
  - Do not use an X or √ in these boxes
- The individual conducting the inspection must initial each month in the box below line 7

Monthly Inspection (1-7)

Release Detection

#1 (on the form)

- Check release detection equipment on a regular basis
- Unusual operating conditions may include:
  - An Alarm
  - A Spill or Overfill
  - Dispensers not working
  - Sudden Loss of product

#2 (on the form) Release Detection records may include one or more of the following

- ATG results for each month for the last 12 months
- Liquid Status Report for each month for the last 12 months
- Containment Sensor Reports – monthly for the last 12 months
- SIR reports for each month for the last 12 months
- Line Tightness Tests - annual
- Line Leak Detector Tests - annual

Filling Out The Inspection Form

Spill Prevention Equipment

#3-7 (on the form) Spill Buckets

- Inspect the equipment identified on that line
- Fill out boxes 3-7 for the appropriate month
- If problems are encountered make a note in the comment section at the bottom of the form and describe how the problem was resolved

Annual Inspection (8-10)

Containment Sumps

#8-10 (on the form) Tank Top, Dispensers and Transition Sumps

- Indicate the date of the annual inspection in the box above line 8
- Inspect the equipment identified on the line
- Enter the appropriate response (Y, N, NA) in the box at the right
- If problems are encountered make a note in the comment section at the bottom of the form and describe how the problem was resolved

***Best business practices would include more frequent inspections of the equipment listed on lines 8-10**

Filling Out The Inspection Form

Page Two of the Form – if applicable

- Fill out the first table if you use a monthly visual check rather than a sump sensor for interstitial monitoring
- The second table is for Impressed Current Systems only

UST Operator Inspection - Utah – Page 2 of 2

If you perform Interstitial Monitoring on your tanks and/or piping and use a visual check rather than sump or interstitial sensors for your monthly leak detection, complete the table to document the monthly visual checks.													
	Months of the Current Year	J	F	M	A	M	J	J	A	S	O	N	D
1	Visual check of the interstitial space of the double-walled tank indicated no release or unusual operating conditions.												
2	Visual check of piping (STP, dispenser and transition) containment sumps indicates normal function and no indication of water or leaked product.												

Impressed Current 60 Day Rectifier Check												
Months of the Current Year	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Show the date the Impressed Current system was inspected to ensure the equipment is running properly												
Amperage reading from impressed current rectifier												
Voltage reading from impressed current rectifier												

INSTRUCTIONS

1. The monthly UST system inspections must be conducted by or under the direction of the Primary Class B UST Operator.
2. The Primary Class B UST Operator must alert the UST Owner or Operator of any condition discovered during the monthly visual inspection that may require follow-up actions.
3. The UST Owner or Operator must maintain a copy of the monthly inspection reports for the most recent 12 months. The records shall be maintained on-site or off-site at a readily available location.

Ver. 4/14/2016

STATE PST COMPLIANCE INSPECTION

What you need to have on site

- Class B operator or qualified representative
- Monthly Operator Inspection Form
- Documentation of Repairs
- List of Class C operator training
- Leak Detection Records (one or more may apply)
  - ATG reports
  - SIR reports
  - Liquid Status Reports
  - Manual Tank Gauging Records
  - Line and Leak Detector Tests
  - 60 day Rectifier Check
  - Cathodic Test Reports

Visual Checks with inspector

- Be prepared to open containment sumps, spill buckets and dispensers (have necessary keys and tools available)
- Ensure all leak detection and cathodic protection equipment is accessible for inspection
- **Safety note**: it is always a good idea to have safety cones and a reflective vest

Notification

EPA Form 7530-1, Notification for Underground Storage Tanks, must be completed, revised, and submitted to the DERR when:

- New PSTs are installed
- Ownership changes – within 30 days
- Changes made to the tank or piping system
- Release detection, corrosion protection, spill or overfill prevention systems are installed, changed or upgraded
- Change in fuel type, including alternative fuels

UTAH Underground Storage Tanks

1 Year Test

ATG Testing Requirements

- Owners and operators must test electronic and mechanical components of their tank release detection equipment for proper operation at least **annually**
- Must be performed by a certified Utah Tester or Installer
- REF: PEI/RP 1200-17 Chapter 8, checklist in Appendix C-7

Console (40 CFR 280 subpart D)

- ☐ Test the alarms-high level, sudden loss, etc
- ☐ Verify the system configuration
  - Testing must be performed in accordance with manufacturer's requirements.
  - Operability Testing Guide Veeder Root
  - Average Facility testing session – 2 hours
- ☐ Test the battery backup

Probes and sensors

- ☐ Inspect for residual buildup
- ☐ Ensure any floats move freely
- ☐ Ensure any shafts are not damaged
- ☐ Ensure the cables are free of kinks and breaks
- ☐ Test alarm operability and communication with the controller

ENVIRONMENTAL RESPONSE & REMEDIATION

UTAH Underground Storage Tanks

3 Year Test

Spill Bucket Testing Requirements

- Owners and operators must test their spill prevention equipment at least **every three years** for liquid tightness
- A third party tester/installer or owner (hydrostatic test only) may test the spill buckets
- Test results may be submitted on the State form "Spill Bucket Hydrostatic Test Form" found on our website undergroundtanks.utah.gov or the form found in RP 1200-17, Appendix C-3
- Photos must be taken when using State form
- REF: PEI/RP 1200-17 Chapter 6 and Appendix C-3

Single Walled and Double Walled Spill Buckets

- ☐ Hydrostatic Test
- ☐ Vacuum Test
  - Single walled, lid over the bucket
  - Double walled, test according to the manufacturer's requirements

ENVIRONMENTAL RESPONSE & REMEDIATION

UTAH Underground Storage Tanks

3 Year Test

Overfill Testing Requirements

- You must inspect your overfill prevention equipment at least once every **three years** to ensure it will function properly to prevent overfills
- Must be performed by a certified UST tester/installer
- REF: PEI/RP 1200-17 Chapter 7, Appendix C-5

Automatic Shutoff Device

- ☐ Functions as designed
- ☐ Installed at the correct height as specified by the manufacturer, shut off at no more than 95% of tank capacity

Overfill Alarm

- ☐ Functions as designed
- ☐ Installed to alarm at no more than 90% of tank capacity

Ball Float Valve

- ☐ May not be installed after Oct 13, 2015
- ☐ Functions as designed
- ☐ Must be installed at the correct height as specified by the manufacturer, shut off at no more than 90% of tank capacity
- ☐ If unable to conduct an inspection, must be replaced with one of the other two methods
- ☐ Ball floats cannot be repaired or replaced

ENVIRONMENTAL RESPONSE & REMEDIATION

UTAH Underground Storage Tanks

1 Year Test

Automatic Line Leak Detector Testing Requirements

- Automatic line leak detectors (ALLD) are used with submersible turbine pump (STP) systems to detect catastrophic leaks in pressurized product piping systems.
- Owners and operators must test their ALLDs at least **annually**
- ALLDs must be tested by a certified Utah tester
- REF: PEI/RP 1200-17 Chapter 9 and Appendix C-9

Mechanical Line Leak Detectors

- ☐ Must be tested annually using a simulated leak test

Electronic Line Leak Detector

- ☐ Must be tested annually using a simulated leak test

ENVIRONMENTAL RESPONSE & REMEDIATION

UTAH Underground Storage Tanks

3 Year Test

Containment and Dispenser Sump Testing Requirements

- Tank or piping sumps installed after Oct 2008 must be tested **every three years**
- Tank and piping sumps installed prior to Oct 2008
  - If used for leak detection, must be tested
  - Not used for leak detection, no testing required
  - No containment sumps, no testing required
- A third party tester/installer (Utah certified) or owners (hydrostatic test only) may test the sumps
- Test results must be submitted on the State form "Utah Containment Sump Test, Hydrostatic Test Form", found on our website undergroundtanks.utah.gov or the form found in RP 1200 Appendix C-4
- Photos must be taken when using State form
- REF: PEI/RP 1200-17 Chapter 6 and Appendix C-4

ENVIRONMENTAL RESPONSE & REMEDIATION

UTAH Petroleum Storage Tanks

3 Year Test

Pressure Relief Valve Testing Requirements

- The Utah Division of Air Quality Rule R307-328 establishes controls on gasoline vapors during the filling of gasoline cargo tanks and storage tanks. These requirements are commonly referred to as state I vapor recovery.
- Pressure relief valves/pressure vent caps are required on gasoline tanks with a capacity of 250-gallons or more.
- Pressurized vent caps must be tested every **three years** using the California Air Resources Board Test Procedures 201.1E.
- Tests must be performed by a certified Utah Tester.

ENVIRONMENTAL RESPONSE & REMEDIATION

FINANCIAL RESPONSIBILITY AND CERTIFICATE OF COMPLIANCE

Financial Responsibility

- State and Federal PST regulations require that owners and operators of PSTs demonstrate financial responsibility to show they can pay the costs of clean-up and third-party claims for leaks from PSTs
- Owners/Operators may show Financial Responsibility through one of the following
  - Participation in the Petroleum Storage Tank Trust Fund (PST Fund)

OR

  - Demonstrate financial responsibility through one of the following:
    - Self Insurance
    - Insurance coverage
    - Letter of Credit
    - Trust Fund
    - Surety Bonds
    - Corporate Guarantee

New Installations

Owners/Operators are required to notify the DEQ ten days prior to beginning the work. An installation permit and fee of $200 per tank is required and must be obtained prior to the completion of the installation. The local fire jurisdiction and health department must be contacted for any requirements that they may have associated with the installation.

UST Installation Permit

- Utah Certified PST Installer who is directing all critical operations associated with tank installation
- Installation company name, address and current PST Installation Company Permit number. (Process Installation Company Permit Protocol, Appendix C-3)
- Date the work will commence
- Tank owner name and address
- Facility name and address
- Complete description of what is to be installed: tank or piping, capacity, material of construction, substance to be stored, etc.
- Integrity testing of the containment sumps and spill buckets

Red Tag Program and One Time Drop

Red Tag

Delivery prohibition tags will be placed on new PSTs during the installation process, to help ensure that no unauthorized deliveries (other than the one time drop) are made to the PST before it qualifies for a Certificate of Compliance. When the new PST does qualify for a certificate, the DEQ will issue the certificate and a letter authorizing the removal of the delivery prohibition tag.

One Time Drop Letter

Before the PST can be put into use, the integrity of the PST and associated piping must be evaluated through a tank and line tightness test. To receive fuel for the test, the owner or installer must contact the DEQ for authorization of a one-time delivery. After the initial drop, the PSTs may not receive subsequent deliveries of fuel until they are issued a Certificate of Compliance and a letter authorizing the removal of the delivery prohibition tags.

CERTIFICATE OF COMPLIANCE

The Utah PST Act requires that Owners/Operators of regulated petroleum PSTs qualify their tanks for and receive a Certificate of Compliance, and keep the PSTs in substantial compliance with all UST rules and regulations.

It is a violation of the UST Act to operate these PSTs without a certificate. New PSTs must have a certificate before being put into operation. Fines may be assessed if product or other regulated substance is delivered to or placed into an PST that does not have a Certificate of Compliance.

There are two types of PST closures: temporary or permanent. All regulated PSTs that do not meet the federal upgrade requirements must be permanently closed. Regulated PSTs that meet federal upgrade requirements can be temporarily closed for periods when the tanks will not be in operation.

Temporary Closure

- Seasonal use PSTs which are only in operation during part of the year
- PSTs are not in operation, but the owner has not decided to permanently close them

Less than Three Months

- Operate and maintain cathodic protection (if any)
- Operate and maintain leak detection (if any) or empty the tank to less than one inch of product

Three Months or More

- Operate and maintain cathodic protection (if any)
- Operate and maintain leak detection (if any) or empty the tank to less than one inch of product
- Submit a Temporary Closure Notice
- Leave vent lines open but cap and secure all other lines, pumps, manways and ancillary equipment
- If corrosion protection and leak detection are maintained then the tank can remain temporarily closed indefinitely

Permanent Closure

Regulated PSTs that do not meet federal upgrade requirements must be permanently closed. Permanent closure entails the removal of the PST from the ground or in place closures may be approved by the local fire department and the DEQ. To properly close an PST in Utah, an owner must:

- Contract with a Utah Certified Remover
- File a Closure Plan, and obtain approval
- Notify the local fire department, LHD and the DEQ 72 hours prior to closing the tank
- Close the tank either by removing it or by filling it with an inert substance, like sand or cement slurry
- Have a Utah Certified Soil/Groundwater Sampler collect the necessary environmental samples and have them analyzed at a certified laboratory
- If contamination is present, the Owners/Operators and/or the certified person must notify the DEQ within 24 hours
- Submit the Closure Notice with the sample analytical results within 90 days of closure
- In the case of in-place closures, meet the requirements of the Division of Solid Waste Management and Radiation Control by placing a notice on the title of the property

Closure Plan

A completed Closure Plan must be submitted by the Owner/Operator and approved before commencing closure of the PST. A contractor may complete the Closure Plan; however, the Owner/Operator is responsible for compliance with all rules and regulations. Information on the Closure Plan includes:

- Once approved the Closure Plan is valid for one year
- Changes to an approved plan must be submitted in writing to the DERR and approved before closing the PST
- A copy of the approved Closure Plan must be on-site during closure activities

Closure Notice

Within 90 days of closing the PST, the Owner/Operator must submit the following:

- Completed Closure Notice signed by the Owner/Operator and the certified soil/groundwater sampler
- Updated site map and sample information table with the actual depths and locations of all soil and water samples, including depth of groundwater
- Analytical results of all samples
- Chain of Custody form, which tracks the samples from the time they were collected until they were delivered to the laboratory

RELEASE RESPONSE

Release: is any spilling, leaking, emitting discharge, escaping, leaching or disposing from an PST in groundwater, surface water or subsurface soils

Spills: occur during customer's use at the dispenser or during the filling of an PST at the tank fill pipe and impact the ground surface

Overfills: occur when an PST tank is filled beyond its capacity resulting in a discharge of product to the environment

Reporting

- Releases of any amount to waterways or surface water must be reported within 24 hours
- Spills over 25 gallons must be reported within 24 hours
- Spills less then 25 gallons that are not cleaned up must be reported within 24 hours
- Spills less than 25 gallons that are cleaned up within 24 hours do not have to be reported

RELEASE RESPONSE

Suspected Release may include**:**

- Overfill Alarm
- ATG Alarm
- Failed ATG test
- Failed SIR report
- Fuel Alarm
- Sudden loss of product
- Any other unusual operating condition
  - ATG says “No Idle Time”
  - More fuel deliveries than normal
  - Pumps are slow or don’t pump
  - Inventory doesn’t seem to match up or make sense
- Owners and Operators must report a suspected release or unusual operating condition to the DERR within 24 hours of the spill, overfill or release

Suspected Release Confirmation Steps

- Owners/Operators must investigate and confirm within 7 days that a suspected release of a substance occurred
- If the Owner/Operator cannot obtain a passing test or justify the alarm, the owner must notify the DERR

Response

- Owners/Operators must be prepared to respond to a release before it happens
- Stop the release
- Contain the release or spill or overfill
- Call for help

Fee Schedule FY 2024

- Environmental Assurance Program (EAP) and Registration Fees are due by July 1 of each year
- This is not a complete fee schedule. To verify current fee schedule please see our website for more information

New Installations

- EAP - $150/tank
- Registration Fee : $110/tank if using EAP, $220 if not using EAP

Existing Facilities

- EAP Fees based on through-put. Cut off is 70,000 gallons per facility per year
  - Over - $150/tank
  - Under - $450/tank

- **Registration Fee**
  - $110/tank if using EAP
  - $220/tank if not using EAP
  - $300/tank if out of compliance for more than six months

- Late Fees - $60
- Certifications - $225/two years
- AB operator initial certification - $100
- AB operator renewal - $50/three years

Aboveground Petroleum Storage Tank (APST) Requirements

tanks.utah.gov
OR
astnotice.utah.gov

Table of Contents for APSTs

APST Regulations

Due to legislation passed in the 2021 session, DERR began regulating specific types of Aboveground Petroleum Storage Tanks (APSTs) on May 5, 2021. By statute (19-6-407).

What is a regulated APST?

A petroleum storage tank greater than 500 gallons and meets one or both of the following:

- If the APST rests on soil or gravel
- If any portion of the piping is underground

APSTs not regulated include:

- Less than 501 gallons
- Commercial airport for fueling
- Used in farming or agriculture
- Petroleum refiner (SIC Code 2911)
- Petroleum bulk stations and terminals (SIC Code 5171)
- Related to oil or gas production and gathering operations
- Used for heating oil on premises

For additional exemptions see R311-200-1

APST Notification

Owners and Operators of regulated APSTs must notify the DERR APST Notification Form. A $250 processing fee will be assessed once the notification form is received.

Please email notification forms to tankcompliance@utah.gov

The notification form can be found at astnotice.utah.gov

Certificate of Compliance (CoC)

To qualify for a certificate of compliance the APST owner/operator must complete and submit the following (R311-206-3):

- Payment of annual registration fee ($110 per tank or $220 per tank if not participating in the Environmental Assurance Program (EAP))
- Payment of annual PST fund fee if participating in the EAP ($150 per tank, or $450 per tank if you don't submit annual throughput or if your annual throughput is less than 70,000 gallons);
- Certificate of Compliance Application;
- Previous Pollution Incident form;
- Financial Responsibility Declaration
- Tank Tightness Test(s) performed in the last six months;

  Refer to the Steel Tank Institute (STI)R912 Reference Document for testing procedures.
- Line Tightness Test(s) performed in the last six months;
- Spill Bucket Test(s) performed in the last six months required only for APST facilities participating in the EAP;
- As-built drawing or site plat;
- Site assessments for regulated APST facilities participating in the EAP are optional. If a site assessment is not conducted, new releases from a documented, known source are 100% covered starting day one of participation. Historic contamination discovered after 10-years of continuous coverage will also be 100% covered. Non-regulated APSTs must perform a site assessment and historic impacts are not covered.

All forms can be found at astnotice.utah.gov

APST Installations

- **As of July 1, 2022 – APSTs must notify DERR within 30-days of installation using the install notification form.**
- **Before operating a new APST an owner/operator shall provide documentation of financial responsibility.**

Recommendations for Owners/Operators of APST

Hire a qualified contractor

Recommendations for Petroleum Contractors

Prior to installing an aboveground tank, we suggest the following sources be consulted:

- NFPA 30: Flammable and Combustible Liquids Code
- NFPA 30A: Code for Motor Fuel Dispensing Facilities and Repair Garages
- PEI/RP200 – Recommended Practices for Installation of Aboveground Storage Systems for Motor Vehicle Fueling
- The Manufacturers Installation Instructions
- State and Federal Regulations
- Local Fire Department
- Local Ordinance

APTS Closures

- **All regulated APSTs are required to submit a closure plan for any closures, upgrades, line replacements, etc.**
- **A Closure Plan for the removal of APSTs must be submitted and approved by the DERR before any work begins.**

- **Permanent Closure Requirements (same as USTs):**
  - Contract with a Utah Certified Tank Remover
  - Notify local fire department, local health department, and DERR prior to closing the tank
  - Contract with a Utah Certified Soil/Groundwater Sampler
  - If contamination is present, notify the DERR within 24 hours
  - Submit the Closure Notice with sample analytical results w/in 90 days of closure

- **Closure Plan Requirements (same as USTs):**

  Tank Info
  Tank Remover and Sampler
  Sampling Plan & analysis method to be used
  Site Plat showing surrounding buildings, streets, utilities, etc.

APTS Reuse Requirements

- **R311-204-3(3):**

- Any removed APST that is to be reused as an APST must be recertified by the manufacturer of the tank or undergo a tank inspection, conducted by a qualified contractor, using a nationally recognized standard such as API 653.

AND

- **STI R912 6.5**

- 6.5 Tank relocation requirements – Aboveground storage tanks are often relocated. The following instructions are to be followed when this occurs. All steps are to be documented and the documentation is to be kept for the life of the tank.

- 6.5.2 A tank must undergo the appropriate inspection prior to relocation. The tank must be subjected to a pressure (or vacuum) test as detailed paragraph 3.2 above except an inert gas, such as nitrogen, should be used for tanks that have previously held fuel.

Annual Requirements

- Pay annual registration Fees;
- Pay Environmental Assurance Program (EAP) Fund Fees if applicable;
- Submit annual line tightness tests.

Three-Year Requirements

- Submit pressure relief valve testing on gasoline tanks.

Five-Year Requirements

- Tank Tests
  - Precision tightness test done by certified Utah tester

  OR
  - Visual Inspection done by certified Utah tester

Future Requirements

- Overfill, cathodic protection, and line leak detector tests will be required starting 7/1/2026.
- Must meet Fire Code for Spill Buckets

SPCC Plan

- REGULATORY SUMMARY The Spill Prevention Control and Countermeasure (SPCC) regulations strive to prevent oil from entering navigable waters through the prevention, control, and mitigation of oil spills.
- This fact sheet focuses specifically on requirements for the development of SPCC Plans, which incorporate specific steps for preventing, controlling, and mitigating oil spills. SPCC plans are required for facilities that store oil and oil-containing products exceeding certain capacity thresholds where there is a possibility that an oil spill would reach a navigable water.
- Any small business that maintains a total aboveground oil storage capacity of greater than 1,320 gallons, or a total undergrounds oil storage capacity of greater than 42,000 gallons, where there is a reasonable potential for a discharge to reach navigable waters is subject to SPCC regulatory requirements. Aboveground storage containers with a capacity of 55-gallons or more are included in the aboveground capacity threshold calculation. Underground storage tanks regulated under 40 CFR 280 and 281 are not subject to the SPCC regulations and are discussed in a separate fact sheet.
- WHERE TO FIND OIL POLLUTION PREVENTION REGULATIONS Statutory Authority: The Clean Water Act of 1977 and its amendments, primarily the Water Quality Act of 1987, and the Oil Pollution Act of 1990. Regulations: The requirements for the development and implementation of SPCC Plans are found in 40 CFR: • Part 112 – Requirement to prepare and implement an SPCC Plan. • Part 110 – Requirements for spill reporting.

SPCC plans are a federal requirement and will be enforced by the EPA
https://www.epa.gov/oil-spills-prevention-and-preparedness-regulations/overview-spill-prevention-control-and