# HOW MONTANA UST RULE CHANGE DIFFERS FROM EPA

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Montana DEQ Underground Storage Tank Program
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# New Montana UST rules Effective – October 06, 2018

Montana DEQ UST program regulations – start of program 11/23/1989

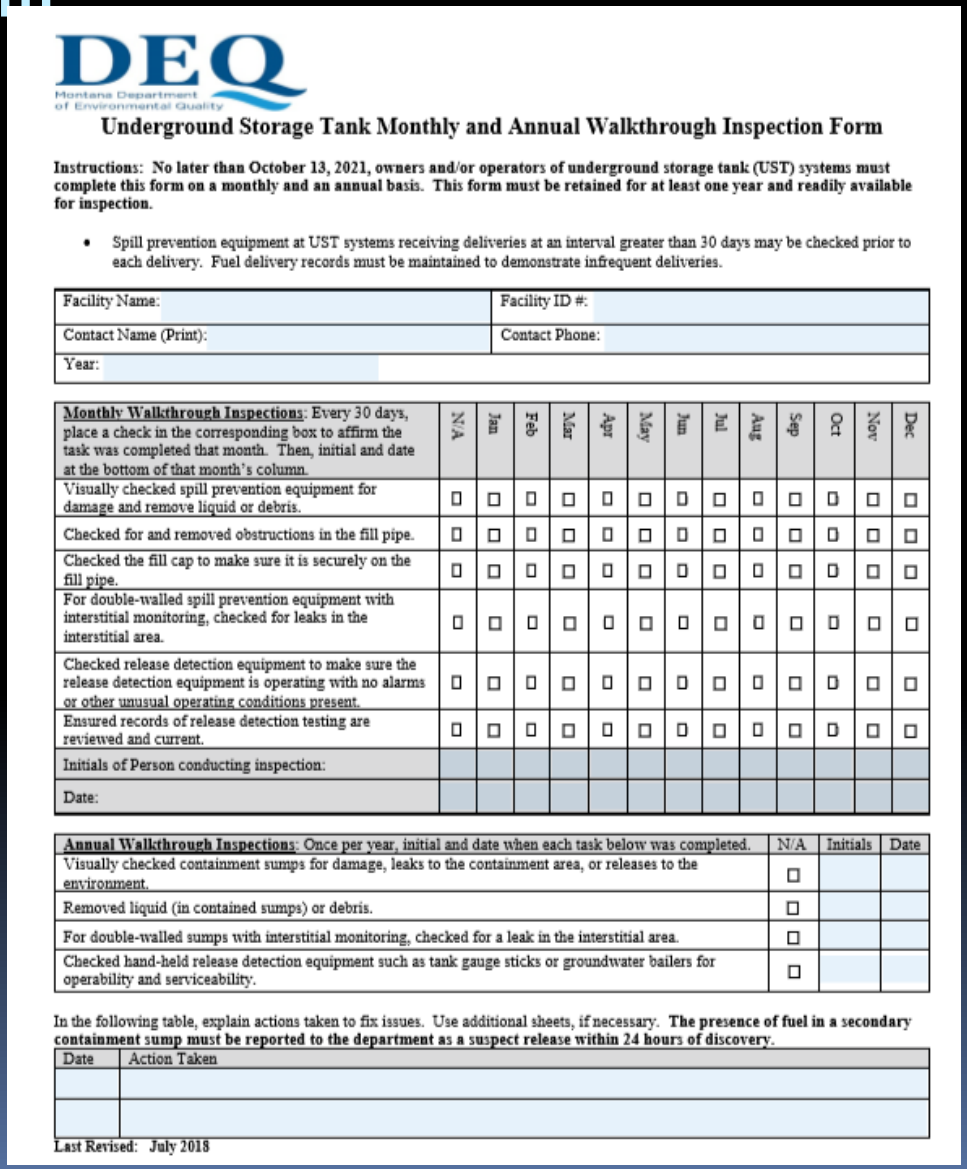
# ARM 17.56.307 Periodic Operation & Maintenance Walkthrough Inspections Effective October 13, 2021

- **Walk-through inspections:**
  - Every 30 days: - make it a routine!
- Annually:
  - Visually check containment sumps
  - Check handheld release detection equipment (tank gauge sticks)
- Use standard code of practice: PEI RP 900, *Recommended Practices for the Inspection and Maintenance of UST Systems* as a code of practice, but must be followed in its entirety, or
- Conduct walkthrough inspections developed by the department

# Walkthrough inspections

- Owners and Operators may conduct these inspections themselves or have a third party perform them
- 2015 Federal UST regulation allows a code of practice to be used instead of the specific requirements listed in the rule
- PEI RP 900 listed in rule as one option
- **The implementing agency (MT DEQ UST) may also establish comparable walkthrough inspection requirements**

# MT DEQ UST Walkthrough inspection form



DEQ
Montana Department of Environmental Quality

**Underground Storage Tank Monthly and Annual Walkthrough Inspection Form**

**Instructions: No later than October 13, 2021, owners and/or operators of underground storage tank (UST) systems must complete this form on a monthly and an annual basis. This form must be retained for at least one year and readily available for inspection.**

- Spill prevention equipment at UST systems receiving deliveries at an interval greater than 30 days may be checked prior to each delivery. Fuel delivery records must be maintained to demonstrate infrequent deliveries.

| Facility Name: | Facility ID #: |
|---|---|
| Contact Name (Print): | Contact Phone: |
| Year: | |

| **Monthly Walkthrough Inspections**: Every 30 days, place a check in the corresponding box to affirm the task was completed that month. Then, initial and date at the bottom of that month's column. | N/A | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Visually checked spill prevention equipment for damage and remove liquid or debris. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Checked for and removed obstructions in the fill pipe. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Checked the fill cap to make sure it is securely on the fill pipe. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| For double-walled spill prevention equipment with interstitial monitoring, checked for leaks in the interstitial area. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Checked release detection equipment to make sure the release detection equipment is operating with no alarms or other unusual operating conditions present. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Ensured records of release detection testing are reviewed and current. | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| Initials of Person conducting inspection: | | | | | | | | | | | | | |
| Date: | | | | | | | | | | | | | |

| **Annual Walkthrough Inspections**: Once per year, initial and date when each task below was completed. | N/A | Initials | Date |
|---|---|---|---|
| Visually checked containment sumps for damage, leaks to the containment area, or releases to the environment. | ☐ | | |
| Removed liquid (in contained sumps) or debris. | ☐ | | |
| For double-walled sumps with interstitial monitoring, checked for a leak in the interstitial area. | ☐ | | |
| Checked hand-held release detection equipment such as tank gauge sticks or groundwater bailers for operability and serviceability. | ☐ | | |

In the following table, explain actions taken to fix issues. Use additional sheets, if necessary. **The presence of fuel in a secondary containment sump must be reported to the department as a suspect release within 24 hours of discovery.**

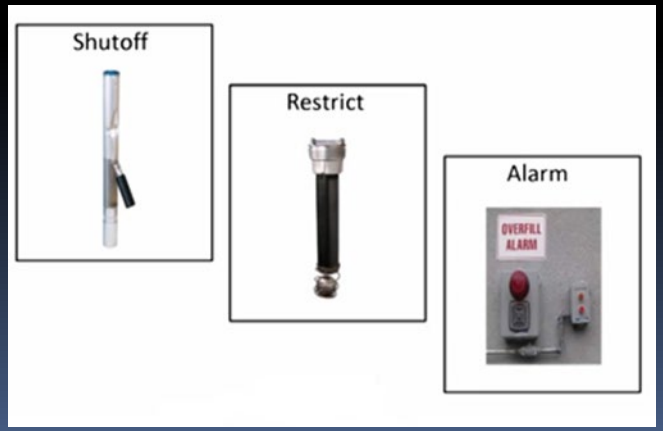
| Date | Action Taken |
|---|---|
| | |
| | |

Last Revised: July 2018

# Arm 17.56.306 Periodic Testing of Spill Prevention equipment, containment sumps, & overfill prevention equipment - Effective October 13, 2021

- Overfill Prevention Equipment Inspections – license required

  Function test flapper valves, auto limiters, ball float vent valves, and outside high level overfill alarms




# Arm 17.56.306 Periodic Testing of Spill Prevention equipment, containment sumps, & overfill prevention equipment - Effective October 13, 2021

- Spill Prevention Equipment Tests
  - Every three-year tightness test
  - Licensee required to do testing
    - Liquid, pressure, or vacuum
    - "Periodic" monitoring of double-walled spill bucket may be used in lieu of the three year test if O/O conducts periodic monitoring of the equipment at a frequency consistent with, or more frequent than the walkthrough inspection frequency
      - Example: O/O checks vacuum, pressure, or liquid interstitial integrity indicators of double-walled spill bucket as part of walkthrough inspection

## Spill Bucket Life Expectancy

- **5 years** – "UST Talk", Issue 19, Vermont ANR DEC, 2008
- **5 – 8 years** – "Preventing Leaking Spill Containment Basins and Reducing the Resulting Environmental Impact" South Carolina DHEC, June 5, 2006
- **5 – 7 years** – "Utah Tank News", Utah DEQ, Fall 2005
- **5 years** – Industry Council on the Environment Presentation Notes, Texas CEQ, September 15, 2005

No Slip-on spill buckets allowed – must be Thread on Models

## Arm 17.56.306 Periodic Testing of Spill Prevention equipment, containment sumps, & overfill prevention equipment - Effective October 13, 2021

- Secondary Containment Tests
  - Three-year tightness testing of sumps and UDCs for Energy Act Tanks installed November 26, 2009 and later and systems where primary method of LD is interstitial monitoring.
  - Double-walled sumps and UDCs, if monitored "periodically" and included in the walkthrough inspection (i.e., O/O checks vacuum, pressure, or liquid interstitial integrity indicators of sump, UDC) can be used in lieu of 3-year tightness test.

## Any UST/piping run that is replaced or installed after November 26, 2009 must employ:

- **Secondary containment** and approved **continuous interstitial monitoring** as a monthly leak detection method.
- Must **test all containment sumps** at least once every three years to ensure liquid tightness using vacuum, pressure, or liquid testing unless the sump is double walled with periodic monthly monitoring
- You must program the tank monitor to **shutoff** the dispenser and/or STP when liquid activates each sump sensor if you opt for new **"low level"** sump testing option.

# Low-Level Containment Sump testing

Required Conditions

- A written request by licensee or o/o
- A liquid sensor is mounted and remains at the lowest point in the sump.

- owner is required to test the functionality of the liquid level sensor in conjunction with the low-level sump test and verify that the sensor works correctly and shuts down the appropriate pump or dispenser. In addition, an annual test of any liquid sensor used as part of a release detection system is required.

- And either: 1)The pump (STP) automatically shuts off when liquid activates the sensor, or 2) The dispenser automatically shuts off when liquid activates the sensor, and the facility is always staffed when the pumps are operational.

# MT DEQ TEST REQUIREMENTS

- Hydrostatically test all containment sumps with liquid for **one hour** to a height **6 inches** above the highest sump penetration. A passing test must show **no liquid loss** measured during the testing interval

Must be: 6 inches above highest sump penetration!

# State License required

- Spill bucket testing, sump testing (secondary containment), & overfill inspections must be accomplished by a licensed installer or compliance inspector.

# Additional Requirements for Operation and Maintenance – effective 10/13/2021

- Release detection equipment tests
  - Annual operation and maintenance tests on electronic and mechanical components of their release detection equipment:
    - Automatic Tank Gauge (ATG) systems and other controllers
      - Test Alarm
      - Verify system configuration
      - Test battery back-up

Can be done by a technician that may or may not be licensed

# Release Detection Equipment Tests Continued -effective 10/13/2021

- Probes and Sensors
  - Inspect for residual build-up
  - Ensure floats move freely
  - Ensure probe or sensor is not damaged
  - Ensure cables are free of kinks and breaks
  - Test alarm operability and communication with controller

Can be done by a technician that may or may not be licensed

# Release Detection Equipment Tests Continued -effective 10/13/2021

- Automatic Line Leak Detector
  - Simulate a leak which determines capability to detect a leak

Added ELLD annual function testing

Can be done by a technician that may or may not be licensed

# Airport Hydrant Systems

- Airport hydrant systems are no longer deferred from regulations.
- Because of the large diameter piping and differences in maintenance requirements for airport hydrant systems, Subpart K of 40 CFR 280 was created to specifically address airport hydrant systems, as well as field-constructed tanks.
- Currently, no systems in Montana meet this EPA definition.

# Deferrals Continued…

- Field-constructed tanks
  - Also addressed in 40 CFR 280, Subpart K
  - A tank constructed of concrete that is poured in the field, or a steel or fiberglass tank primarily fabricated in the field.
    - Tanks that are primarily factory built, but assembled in the field, are considered factory-built tanks.
    - Tanks with components primarily manufactured in a factory with minimal assembly in the field, are considered factory-built tanks.
  - Montana does not currently have any field-constructed tanks.

# Deferrals Continued…

- USTs storing fuel solely for use by Emergency Power Generators
  - Deferral for release detection has been removed
  - Federal regulatory requirements align with Montana's current UST Program regulations on EPGs

# Other Changes

- Vent line flow restrictors (ball float vent valves) - are no longer an option for overfill protection in new UST systems and when these devices need to be replaced.
- Replacement of piping – updated from "over" 50 %  to 50% or more.

  If "50 percent or more of the length (measured from the piping terminus at the tank to the nearest point where the product is dispensed or otherwise used) or a pressurized product pipe regulated under this chapter is replaced, then the entire length of product piping must be replaced with secondarily-contained piping. The replacement of a line of product piping from a particular UST does not require the replacement of product pipes connected to other USTs."

  Under-dispenser containment– UDC must be installed :

  - (a) a new UST system is installed;
  - (b) dispensers and any associated hardware used to attach the dispenser to the underground storage tank system are replaced. Equipment necessary to connect the dispenser to the underground storage tank system includes check valves, shear valves, unburied risers or flexible connectors, or other transitional components that are underneath the dispenser and used to connect the dispenser to the underground piping;
  - (c) product piping is repaired or replaced at an associated dispenser island;
  - (d) significant modifications are made to the concrete at a dispenser island; or
  - (e) the department determines under-dispenser containment is necessary to meet the requirements of this rule.

# Other Changes Continued…

- Pressurized piping runs with STPs must have a department approved ALLD installed- Effective now.
- Removal of 5.0 gph ALLD re-test - Failure of annual 3.0 gph ALLD test is a failure and must be replaced. Effective now.
- Vapor and GW monitoring - allowed as a leak detection method until October 13, 2023.

# MT DEQ UST program vs EPA: a few differences

- MT DEQ UST program started regulating Emergency Power Generator Tanks (including tank and piping leak detection) on 11/23/1989 – EPA original deferral in 1988.
- MT DEQ UST program regulates all underground regulated product piping runs (vs EPA 10 percent rule)- including ASTs with underground piping
- MT DEQ UST program (after December 31, 2010) incorporated Shut-down requirements for tank and piping leak detection methods to ensure the UST operator is alerted immediately and is forced to address all possible leak alarms.

# Differences continued

- MT DEQ – Issues UST installation, modification, construction, and closure permits to licensed individuals
- MT DEQ does not have an SPCC program at this time, but covers eligible ASTs for FR
- Montana has the State Petroleum Tank Cleanup Fund (with Board members) which is the most common method of FR for UST facility owners.

# Differences Continued

17.56.205 ANTI-SIPHON REQUIREMENT

- (1) The owner or operator of an UST system that is located at an elevation that produces a gravity head on an underground piping system shall ensure that the product pipe is equipped with one of the following devices:
- (a) a department-approved anti-siphon valve;
- (b) a department-approved normally closed solenoid valve; or
- (c) any other department-approved device designed to prevent siphoning.
- Effective 2/11/11.

# Anti-Siphon examples from PEI

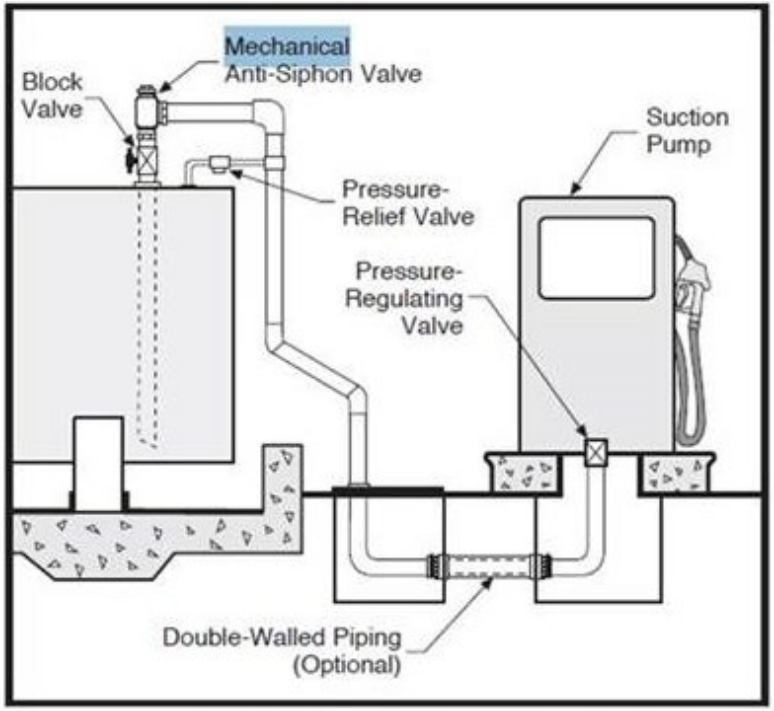
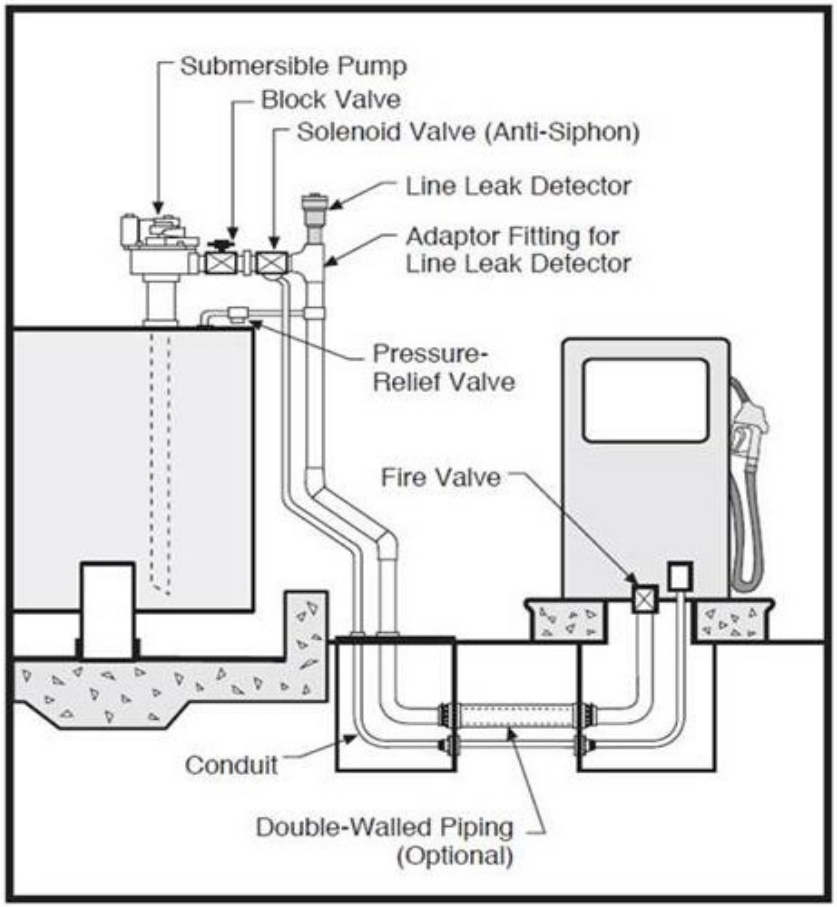


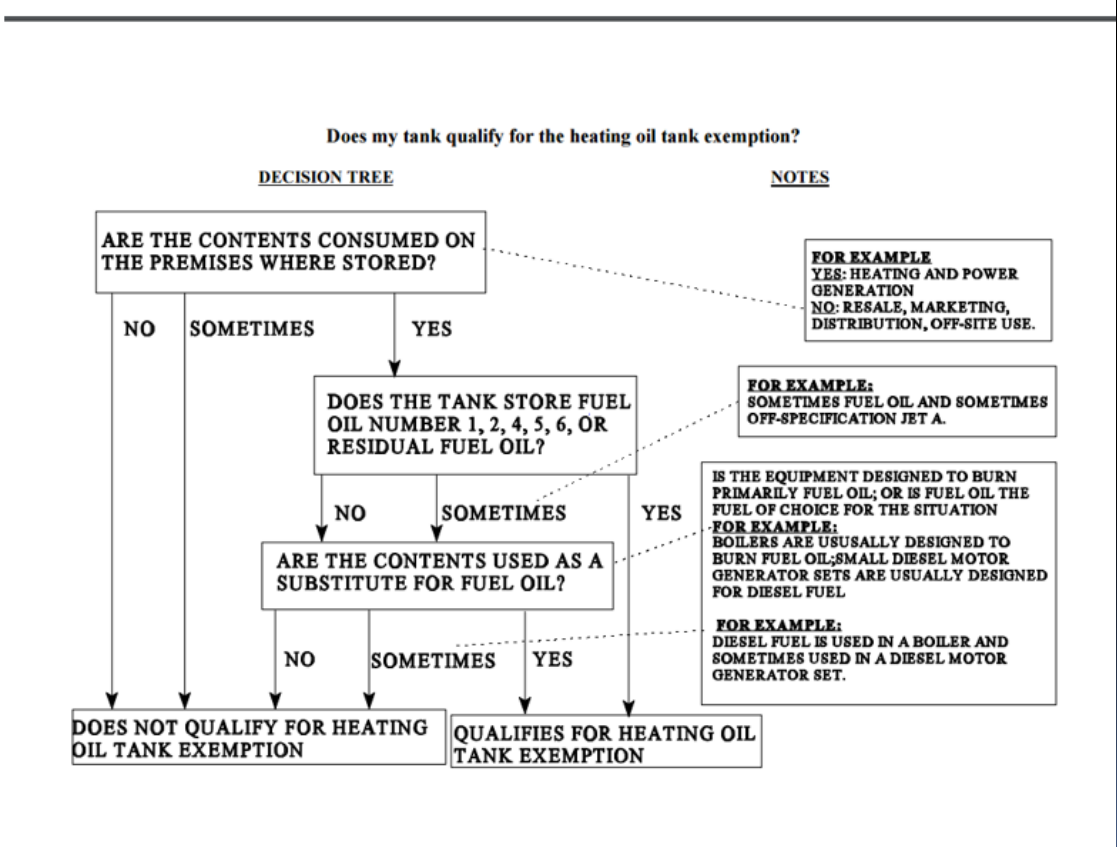

**FIGURE 7-2. *Suction System.*** *Typical piping and valve arrangement for product piping exiting the tank top. Aboveground portions of the piping must be securely supported. Supports are not shown in the diagram for clarity.*




Note: More than atmospheric pressure. Double walled piping required for both systems: MT DEQ considers both "pressurized" piping.

# MT DEQ SB 386: Farm Tank exemption- 5/10/1995

MT DEQ UST program exempts underground farm and residential noncommercial motor fuel and heating oil storage tanks of 1,100 gallons or less which were installed before April 27, 1995, but allows these tanks to opt into the program for the State Cleanup Fund



# Link to MT DEQ UST regulations:

- On our website under Resources, Laws and Rules:

  http://mtrules.org/gateway/ChapterHome.asp?Chapter=17%2E56

- Monthly walkthrough inspection checklist: http://deq.mt.gov/Portals/112/Land/UST/Documents/PDFfiles/WalkthroughInspectionForm.pdf