



A SUMMARY OF THE NEW 2015 FEDERAL REGULATIONS

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History of the UST Laws and Regulations

- 1984: Congress responded to the increasing threat to groundwater posed from leaking underground storage tanks by adding Subtitle I to the Solid Waste Disposal Act (SWDA) of 1965, also known as RCRA (Resource Conservation and Recovery Act).
- 1988: Congress Promulgated the UST regulation (40 CFR part 280) to prevent, detect and clean up petroleum releases to the environment. Minimum standards were set for new UST systems and existing systems had to be upgraded, replaced, or closed (Spill, overflow, CP, demonstrate FR, perform release detection). The deadline to meet these standards on existing systems was 1998.

History of UST Laws and Regulations Continued..

- After 1988, owners and operators were required to report and clean up releases from their USTs.
- 1988: Congress also promulgated a regulation for state program approval (40 CFR 281) for states that choose to operate in lieu of the federal program (includes certain requirements in order to be approved by EPA).
 - Currently, there are 38 states that are state-program approved, including Montana.

History of UST Laws and Regulations Continued..

- 2005: the Energy Policy Act further amended Subtitle I of the SWDA for those states receiving Subtitle I money from EPA, regardless of state-program approval status
 - Those requirements included Operator training, Inspections, delivery prohibition, secondary containment, to which Montana added sump testing
 - The main components of these regulations, operator training and secondary containment, did not apply to Indian Country

The New Regulations

- July 15, 2015, EPA finalized changes to the 1988 regulation, 40 CFR 280, as well as changes to the SPA regulation in 40 CFR 281 .
- These new regulations build on the 1988 regulations:
 - Ensure O/O properly operate and maintain their UST systems
 - Establish parity between the federal government and Indian Country with regard to the 2005 Energy Act Regulations (Operator training, secondary containment)



The New Regulations Continued...

- Address UST systems that were deferred in the 1988 regulations
 - Include updates to current technology and codes of practices
 - Technical and editorial corrections
 - Update SPA regulation (40 CFR 281) to address the above changes
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The Specifics

- Operator Training – Montana implemented the 2005 Energy Policy Act in October 2010
 - Secondary Containment (tanks, piping, UDC)– also implemented from the EPA Act in 2007
 - Sump testing in 2012
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The Specifics Continued...

- Operation and Maintenance:
 - Walk-through inspections:
 - Every 30 days:
 - Visually check spill prevention equipment (spill bucket, fill cap) – exception: facilities with deliveries > 30 days, check prior to each delivery
 - Check release detection equipment
 - Operating with no alarms
 - No unusual operating conditions present
 - Review release detection records are review and current

The Specifics Continued...

- Walkthrough Inspections continued
 - Annually:
 - Visually check containment sumps
 - Check hand held release detection equipment (tank gauge sticks)
 - EPA included 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
 - O/O may conduct the walkthrough inspections or hire a third party to conduct the walkthroughs

The Specifics Continued...

- Spill Prevention Equipment Tests
 - Every three years tightness test
 - 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



The Specifics Continued..

- Overfill Prevention Equipment Inspections

- Owners and operators must conduct overfill prevention equipment inspections at least once every three years, *including* BFVVs that have been paved-over



The Specifics Continued...

- Secondary Containment Tests
 - Follows Montana's three year tightness testing requirement of sumps and UDCs and only applies to USTs whose primary method of line leak detection is ISM.
 - 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.
 - The original regulatory proposal included testing of secondarily contained tanks and piping, but did not make the "final cut".

Additional Requirements for Operation and Maintenance

- 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



Release Detection Equipment Tests Continued

- 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



Release Detection Equipment Tests Continued...

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



- Vacuum pumps and pressure gauges
 - Ensure proper communication with sensors and controller

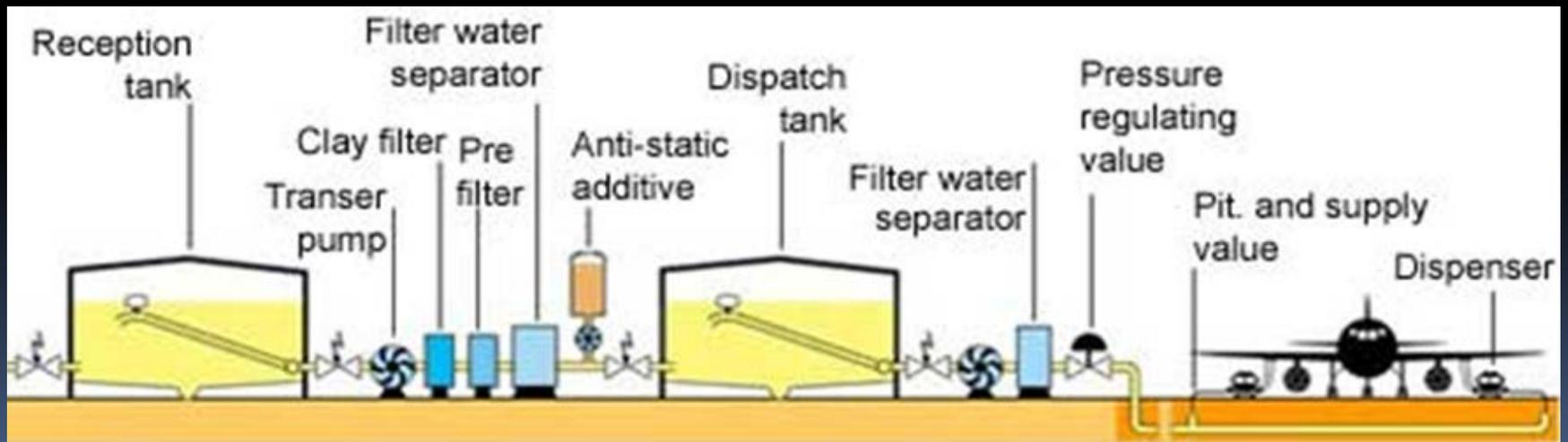


Additional Requirements for Operation and Maintenance

- For inspections of spill prevention equipment, overfill prevention equipment, secondary containment, and release detection equipment tests, O/O must use manufacturer's requirements or a code of practice developed by a nationally recognized association of independent testing laboratory
- There is one code of practice for inspection overfill prevention equipment: PEI RP 1200, *Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Equipment at UST Facilities*

Addressing Deferrals

- Airport hydrant fuel distribution systems
 - “An UST system which fuels aircraft and operates under high pressure with large diameter piping that typically terminates into one or more hydrants (fill stands)”.





Airport Hydrant Systems Continued

- 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.
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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.

Airport Hydrant Systems and Field-constructed Tanks

- Subpart K in 40 CFR 280 was created to address the requirements of these systems:
 - Release reporting, response and investigation, FR, closure, notification, spill and overflow prevention, CP, general operating requirements (including compatibility and repairs, release detection, and operator training) will now apply to these systems.



Airport Hydrant Systems Continued...

- In addition to the requirements listed, Airport Hydrant Systems will be required to perform walkthrough inspections, as all other UST systems in 40 CFR 280.

Airport Hydrant Systems Continued...

- Hydrant Pits
 - Prefabricated fiberglass vaults or concrete chambers for operation and maintenance.
 - Serve as an isolation point for leaks and spills



Airport Hydrant Systems Continued...

- Hydrant Pits
 - Point of connection between the piping system and the aircraft
 - Regulates pressure into the aircraft



Airport Hydrant System Walkthrough Inspections

- As you might guess, there are additional requirements to walkthrough inspections of airport hydrant systems:
 - Hydrant piping vaults – check for any hydrant piping leaks.
 - Hydrant pits – visually inspect for damage; remove any liquid or debris; and check for any leaks.
 - If confined space entry is not required, according to OSHA, these inspections must be incorporated into the “at least every 30 day” inspection.
 - If confined space entry is required, these additional inspections must occur at least annually.

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.
- **Notification** – a one-time notification of existence for UST systems with field-constructed tanks and UST systems identified as airport hydrant fuel distribution systems.
- **Improving repairs** – removed the link so that fixes not associated with releases are also repairs. This change means that owners and operators must perform repairs in accordance with a code of practice and test or inspect the repaired equipment.

Other Changes Continued...

- Compatibility
 - The final federal regulation clarified the regulated substance regulation to include hydrocarbons derived from non-petroleum sources, such as biomass, plant material, organic waste and shale oil.
 - Owners and operators who plan to store substances containing greater than 10% ethanol and substances greater than 20% biodiesel must demonstrate compatibility.

Compatibility Continued..

- Owners and operators must demonstrate compatibility with the UST system:



- Tank, piping, containment sumps, pumping equipment, release detection equipment, spill equipment, and overfill equipment.

Compatibility Continued...

- Owners and operators may demonstrate compatibility of the UST system by using one of the following options:
 1. Certification of listing of UST system equipment or components by a nationally recognized, independent testing laboratory for use with the substance stored; or
 2. Equipment or component manufacturer approval. The manufacturer's approval must be in writing, indicate an affirmative state of compatibility, specify the range of biofuel blends the equipment or component is compatible with, and be from the equipment or component manufacturer; or

Compatibility Continued...

3. Use another option determined by the implementing agency to be no less protective of human health and the environment.
- Owners and operators must maintain records documenting compliance as long as the UST system is used to store the regulated substance.
 - (Remember: Owners and operators must notify the department at least 30 days prior to switching to a regulated substance containing >10% ethanol or >20% biodiesel).

Other Changes Continued...

- Interstitial Monitoring Results



The old federal regulations implicitly covered interstitial monitoring when reporting suspect releases because it was a method of leak detection.

- The updated regulations now explicitly cover interstitial monitoring with regard to suspect releases.
 - Liquid in interstitial spaces of secondarily UST systems is now an unusual operating condition, as well as an ISM alarm
 - Leaks must be investigated, addressed and as necessary, reported.

Timeline for Implementing the Updated “Regs”

- For states that are not state program-approved (SPA), implementation of the regulations began as early as October 2015.
- Montana is a SPA state, therefore EPA has allowed SPA states to begin the “SPA process” no later than end of 2018.
- MOA process has been started.
- Plan is to begin the re-write process the end of this year.

Timeline Continued..

IMPLEMENTATION TIME FRAMES FOR NEW REQUIREMENTS

New requirement	Implementation time frame
<p>Flow restrictors in vent lines may no longer be used to meet the overfill prevention requirement at new installations and when an existing flow restrictor is replaced. Testing following a repair</p>	<p>Owners and operators must begin meeting these requirements on the effective date of this final UST regulation.</p>
<p>Closure of internally lined tanks that fail the internal lining inspection and cannot be repaired according to a code of practice. Notification of ownership changes. Demonstrating compatibility. For airport hydrant fuel distribution systems and UST systems with field-constructed tanks: <ul style="list-style-type: none"> • Notification and financial responsibility.⁹ • Release reporting. • Closure. </p>	
<p>Operator training For previously deferred UST systems: <ul style="list-style-type: none"> • Subpart D for UST systems that store fuel solely for use by emergency power generators • Subpart K (except notification, financial responsibility, release reporting, and closure) for airport hydrant fuel distribution systems and UST systems with field-constructed tanks. </p>	<p>Owners and operators must begin meeting these requirements three years after the effective date of this final UST regulation.</p>
<p>Spill prevention equipment testing Overfill prevention equipment inspections Containment sump testing for sumps used for piping interstitial monitoring</p>	<p>Owners and operators must conduct the first test or inspection within three years after the effective date of this final UST regulation.</p>
<p>Release detection equipment testing. Walkthrough inspections.</p>	



Questions?

“Judge a man by his questions rather than his answers.”

-Voltaire

