

**SOLID & HAZARDOUS WASTE DIVISION
STORAGE TANK PROGRAM
GUIDANCE DOCUMENT #4**

SUBJECT: DOUBLE-WALL REQUIREMENT FOR NEW UST SYSTEM INSTALLATIONS OR REPAIRS AND SUMP SENSOR CONFIGURATION

SCOPE: This document provides clarification to ensure that the Storage Tank Program (STP) consistently interprets the requirements for double-wall tanks and double-wall lines on new installations and modifications to existing installations.

INTRODUCTION:

1. Wyoming Water Quality Rules and Regulations (WWQRR), Chapter 17, Section 14(g)(i)(B), requires all pressurized piping systems to be equipped with an automatic line leak detector. Automatic line leak detectors that alert the owner and/or operator to the presence of a leak by restricting or shutting off the flow of regulated substances through piping or triggering an audible or visual alarm may be used only if they detect leaks of 3 gallons per hour at 10 pounds per square inch line pressure within 1 hour.

2. WWQRR, Chapter 17, Section 14(h), requires that all new and replacement installations and repairs meet the following secondary containment criteria:

A. New or replacement tanks shall be provided with full secondary containment in the form of double-wall tanks or single-wall tanks with a polyethylene tank jacket.

B. New or replacement connected piping shall be provided with full secondary containment in the form of double-wall lines or single-wall lines with secondary containment piping.

C. All dispensers must be equipped with full secondary containment in the form of dispenser pans.

D. All secondary containment systems shall be monitored in accordance with WWQRR, Chapter 17, Section 16(f).

3. WS 35-11-1429(c) and (d) require that: 1) double-wall underground storage tanks and lines with interstitial leak monitoring be installed whenever any underground storage tank is installed, and 2) double-wall underground storage tank system lines with interstitial leak monitoring shall be installed whenever any line is installed on any underground storage tank system.

This guidance document clarifies:

- The intent of these requirements,
- The installations that must comply with these requirements,
- When a repair can be made without installing a complete double-wall system,
- When a modification must include a double-wall system, and
- How a new/replacement piping system must be configured for the sump sensors to detect a leak of 3 gallons per hour as required by WWQRR, Chapter 17.

GUIDELINES:

1. Sump Sensor Configuration for all New and Replacement Double-Wall Lines

A. To comply with WWQRR, Chapter 17, Section 14(g)(i)(B), all new and replacement underground piping systems must be configured so the sump sensors can detect a leak of 3 gallons per hour. All portions of this piping from the tank to the fire/sheer valve shall be monitored including all flex connectors and piping connections located in the turbine sumps, transition sumps, and the dispenser pans. Sump sensors shall be placed at the bottom of the lowest point of the dispenser pan, transition sump, or turbine sump in which the sensor is located.

B. New and/or replacement underground piping systems shall be configured with the interstice being continuous between each turbine sump, transition sump, or dispenser pan. These underground piping systems shall have sump sensors installed in each turbine sump, transition sump, and dispenser pan. The sump sensors shall be placed at the bottom of the lowest point in the turbine sump, transition sump, or dispenser pan.

C. Whenever new and/or replacement underground piping is installed for a new emergency power generator system, the piping shall be configured with a transition sump where the piping goes aboveground. Sensors shall be placed in the tank top sump and at the transition sump. The sensors shall be placed at the bottom of the lowest point in the sump.

2. WWQRR, Chapter 17, Section 14(h), and WS 35-11-1429(c) and (d)

WWQRR, Chapter 17, Section 14(h), and WS 35-11-1429 (c) and (d) were enacted in response to the Underground Storage Tank Compliance Act of 2005. The intent of these requirements is to phase out, over the next 20 or 30 years, every single-wall underground storage tank and every single-wall line, with very few exceptions. Further, the statute requires interstitial leak monitoring for double-wall tanks and piping when these systems are installed.

A. Modifications to Tanks and Piping

(i) Connected Lines. Connected lines cannot be modified in any way unless the lines are replaced with double-wall lines for the entire piping run. In this context, “modification” means lengthening, shortening, or relocating a line, and includes adding satellite lines to an existing master dispenser. If a dispenser is to be moved from its present location, even a few feet, the entire piping run must be replaced with double-wall pipe.

(ii) Underground Storage Tanks. A single-wall underground storage tank cannot be installed as a new tank. Existing single-wall underground storage tanks cannot be removed, re-certified, and re-installed at any location for use as an STP-regulated storage tank.

B. Changing Leak Detection Method Prohibited

(i) If a tank and/or a piping system is/are interstitially monitored and was/were installed after 2005, the owner and/or operator must interstitially monitor the system(s) until the system(s) has/have been permanently closed or changed to a non-regulated use in accordance with WWQRR, Chapter 17, Section 31.

(ii) If an interstitially monitored system has been placed in temporarily out-of-use (TOU) status, in accordance with WWQRR, Section 30, the system shall be interstitially monitored until the tank has been emptied to within 1 inch of the tank bottom. After product has been re-introduced to the TOU tank, interstitial monitoring must resume.

3. Emergency Repairs that do not have to comply with WWQRR, Chapter 17, Section 14(h) and WS 35-11-1429(c) and (d)

A. Connected Lines. When a connected line becomes damaged by trenching, drilling, or similar activities, the connected line can be repaired using similar materials to the original line, regardless of how much line must be replaced to make the repair. However, if it becomes necessary to expose the entire pipe run to make a repair, the entire pipe run must be installed as double-wall pipe with interstitial monitoring, dispenser pans, and sumps at both ends. A line that has been recalled by the manufacturer and fails due to structural degradation may not be repaired. The entire pipe run must be abandoned or replaced with double-wall, secondarily contained lines.

B. Underground Storage Tanks. WWQRR, Chapter 17 allows repairs to be made on single-wall tanks that are damaged by digging or boring. The STP allows single-wall tanks to be repaired as long as the repair meets the requirements of WWQRR, Chapter 17, Section 8. For example, if someone drills into a fiberglass tank, that tank can be repaired as long as the repair is certified by the manufacturer under WWQRR, Chapter 17, Section 8(a)(iii).

C. Dispensers. New dispensers may be installed at the same location where a previously installed dispenser was located without requiring the installation of double-wall pipe, provided that the underground lines are not disturbed. Swing joints or flex connectors under dispensers can be replaced, if necessary, without requiring the installation of double-wall piping. Beginning April 13, 2016, if a dispenser is replaced and any equipment connecting it to the underground piping (e.g., flex connectors or fire/sheer valves) is replaced and the dispenser does not already have a dispenser pan, a liquid-tight dispenser pan must be installed and integrity tested. The dispenser pan must allow for visual inspection and access to the components or be periodically monitored for leaks from the dispenser system.