

Periodic Testing of Secondary Containment

Testing Equipment

Pressurizing equipment should be of sufficient size to accommodate line pressure requirements. Pressurizing equipment should have the controls to gradually increase pressures. Only experienced personnel should operate pressurizing equipment. The pressure gauge should be located in close proximity to the pressurizing equipment. Pressure gauges must have a full-scale reading not to exceed twice the required test procedure. Pressure gauges should be accurately and routinely tested for reliability. Periodically over the life of the FlexWorks system, it is recommended that the interstitial testing be used to ensure that the secondary containment is intact. Below are checkpoints for testing of the complete FlexWorks system:

Swivel and Barbed Applications

As described in OPW Fueling Containment System's Flexible Underground Piping Manual, properly connect all connector tubes and test tubes as part of the complete secondary monitoring system. Be sure all test boots and connector tubes are installed per the written instructions. As a safety measure, we recommend the use of an inert gas such as helium or nitrogen when testing the interstitial space of an operating system. Gradually apply 3-5 psi through the test port located in each of the existing tank sumps. After pressurizing and allowing for secondary system pressure stabilization, check the reading on the test gauge which should be connected to the test tube of the interconnected interstitial line. Any rapid decrease in pressure or a change in pressure that does not stabilize, may indicate a leak in the secondary containment. Significant temperature changes can result in a pressure reading differential. Monitor process for a total of one hour.

Coaxial Applications

As described in OPW Fueling Containment System's Flexible Underground Piping Manual, properly connect/install all coax test tubes as part of the complete secondary monitoring system. As a safety measure, we recommend the use of an inert gas such as helium or nitrogen when testing the interstitial space of an operating system. Gradually apply 3-5 psi through the test port located in each of the existing tank sumps. After pressurizing and allowing for secondary system pressure stabilization, check the reading on the test gauge which should be connected to the test tube of the interconnected interstitial line. Any rapid decrease in pressure or a change in pressure that does not stabilize may indicate a leak in the secondary containment. Significant temperature changes can result in a pressure reading differential. Monitor process for a total of one hour.

Hydrostatic Testing of Dispenser Containment Sumps and Tank Sumps

As described in OPW Fueling Containment System's Flexible Underground Piping Manual, insure that all flexible entry boots, FlexWorks entry boots, test boots and connector tubes are properly installed. When testing dispenser containment or tank sumps that utilize "fail safe" or "positive" leak detection sensors, fill sump with water to 1-inch above the highest penetration fitting. Monitor visually or electronically for an appropriate time period to ensure tightness and integrity. Any raise or drop in water level would indicate the possibility of a breach within the sump.

OPW advises that pressure testing with compressed air can be hazardous and precautions should be taken to minimize the pressure used and the potential damage which could occur should a sudden failure occur.