



Catastrophic Release in Monmouth

On April 2, 2021, a service station in Monmouth, Oregon began leaking gasoline from its UST system. The leak went undetected for five days, until staff at the Monmouth sewage treatment plant called DEQ Emergency Response to report liquid gasoline in their intake. The plant is almost 3/4 miles away from the station.

During those five days, 14,000 gallons of gasoline leaked from a 12,000 gallon tank. How is that possible? **Automated deliveries kept coming** while the UST system was spewing fuel, and the station operator was not current on their accounting.

It is not an exaggeration to say that, had things gone differently, the center of Monmouth could have been destroyed in an explosion, with horrible loss of life. Gasoline vapors in adjoining buildings were well above the ignitability threshold when DEQ inspectors arrived on the scene, and when investigators managed to pry open a sump cover sealed shut by partial vacuum, they barely escaped being soaked by a fountain of gasoline. A spark or a lit cigarette would have caused a disaster.

The UST system at this station was installed in 1989, long before Oregon required interstitial monitoring. Nevertheless, this system had functional sump sensors, but they had been programmed to go off only when they *didn't* sense liquid. This leak detection equipment, while not required for regulatory compliance for such an old UST system, could have saved the day had it been properly maintained and monitored.

Automated deliveries are convenient, but it is vital to stay on top of the accounting to make sure that you're not feeding a leak. Modern leak detection equipment is not an annoying, expensive nuisance. It could save your business, and it could save your life.

Aging Tanks

How old is your UST system? We have had quite a few ownership changes in Oregon over the past year. If you recently bought a gas station or another facility with an underground storage tank system, it's important that you know the details of your equipment, including how old it is. Tanks over 30 years old are harder to insure, often have much worse compatibility issues with alternative fuels like E15 and biodiesel, and, as we saw above, are often exempt from equipment requirements that alert the owners of more modern tank systems to potential problems.

Many Oregon UST systems were installed before 1998, and were upgraded to meet the federal requirements for corrosion, spill & overfill protection. Those tanks are reaching the end of their useful lives. Contact DEQ to see what information we have on your facility. Plan ahead for replacing or removing your aging tanks before they fail.

Structural Retrofits

More than a tank lining, a Structural Retrofit builds a new double-walled fiberglass tank inside the empty, decommissioned shell of an existing tank. The new tank does not rely on the old for any support; it uses only the tank cavity. DEQ views this process as a decommission by change of service and a new installation, allowing the new tank to qualify as such for insurance purposes.

We have a fact sheet that lays out the documentation requirements for all SR installations. You can find it on our website at <https://www.oregon.gov/deq/tanks/Pages/UST-Forms.aspx>

As with all UST decommissionings, you must perform a site assessment, and you must also provide completed checklists for both the decommissioning and installation work.

Don't Dump Your Sump (test water!)

If your UST system uses interstitial monitoring for release detection, you must test the tightness of your containment sumps every three years, unless they are double walled and you inspect both interior and exterior walls as part of your monthly walkthroughs. A common method of tightness testing is *hydrostatic testing*, which involves, after cleaning the sump, pouring water into the sump, first to test that the sensors can detect liquid and that this sets off the alarm and shuts down the pump or dispenser. After testing the sensor, this testing method calls for adding more water and letting it sit for at least an hour to make sure that it's not leaking out of the sump. (More details can be found on EPA's website, at <https://go.usa.gov/xHSmK>)

But after the test, you have a sump full of water that is possibly contaminated with petroleum. **Do not dump the water down a storm drain!**

Benzene is a carcinogen, and makes up about 0.62% of the volume of a gallon of gasoline. At concentrations of 0.5 mg/L, dissolved benzene makes water into hazardous waste. This means that 1.13 oz of gasoline (a bit more than 2 table-spoons) dissolved in 100 gallons of water makes the water too dangerous to pour into the storm drain.

EPA's Technical Compendium addresses the issue of sump test water disposal (<https://go.usa.gov/xHSm9>) The best thing to do with sump test water is to store it for re-use the next time you perform sump testing. If that is impractical, then you must dispose of it in accordance with federal and state regulations.

If you are in Washington, Clackamas or Multnomah counties, contact Metro to dispose of the test water at either of the Metro transfer stations. (<https://go.usa.gov/xHSmR>) In other parts of the state, contact the local jurisdiction that operates your wastewater treatment facility. For concentrations below the threshold of ignitability (and if your sump test water contains enough petroleum to be ignitable, you have other problems, and should be reporting a suspected release) it may be possible to dispose of the water in the *sanitary* sewer. **But you must first ask for permission to do so.** Note that running the test water through an oil-water separator is not necessarily sufficient to clean the water to below the toxicity threshold.

UST regulations are there to keep petroleum leaks from contaminating ground water. Don't waste the effort of making sure your sumps are liquid tight by turning around and pouring carcinogenic hazardous waste into the watershed.

New Forms for New Requirements

The new UST rules that came into effect on October 1, 2020 require monthly walkthrough inspections, tri-annual overflow prevention equipment inspection testing, and annual release detection equipment testing. You must keep your records to show to DEQ inspectors.

We have put together sample forms that you can use to document your inspections and testing. The forms are available on our UST Forms and Publications page

<https://www.oregon.gov/deq/tanks/Pages/UST-Forms.aspx>

We Still Need Your Email Address!

Your DEQ Online is live for two other DEQ programs: Greenhouse Gas Reporting and Gasoline Transporters. UST will switch over to YDO in early 2022. We are still collecting emails from our permittees to prepare for Your DEQ Online and to improve communication. Please provide your email address to us, and we'll send you updates, such as new/updated forms, invoice reminders, *Tankline Bulletins*, and updates from EPA. Register your email with your facility here: <http://tinyurl.com/USTDEQ>

Water Quality Permit Public Comments

DEQ proposes to revise and renew the 1500A water quality general permit for the cleanup of petroleum hydrocarbon contaminated wastewater. These cleanup operations may consist of a petroleum release from current or past practices, a leaking underground storage tank, underground storage tank decommissioning, groundwater and/or surface water treatment.

As part of the renewal process, there is an opportunity for the public to comment on the proposed permit. Look for the public notice on State of Oregon: Tanks - Permit Requirements for UST Cleanup Sites (<https://go.usa.gov/xHSy3>) or DEQ's Get Involved public comment web page (<https://go.usa.gov/xHSy3>) in July.