

Underground Storage Tank (UST) Branch Procedures for Evaluating Vapor Readings in Dry Tank Pit/Piping Monitoring Wells

1. Reportable Standards
 - a. Equal to or greater than **1000 ppm** [using a Photoionization Detector (PID), Flame Ionization Detector (FID), RKI/Eagle vapor meter or other vapor meter] for dry monitoring wells in tank pits containing gasoline tanks, even if the tank pit also contains diesel, kerosene, and/or waste oil tanks. This also applies to dry monitoring wells in piping trenches that contain gasoline product piping, even if the piping trenches also contain diesel and/or kerosene product piping.
 - b. Equal to or greater than **100 ppm** for dry monitoring wells in tank pits containing only diesel, kerosene, and/or waste oil tanks. This also applies to dry monitoring wells in piping trenches that contain only diesel and/or kerosene product piping.
2. Our Office considers the finding of reportable vapors in dry monitoring wells to be a suspected release.
3. After the site has been logged in as having a suspected release, the Technical Section will monitor (request monitoring well records and perform site visits) the site for a minimum of 6 months before making a decision on the next course of action.
 - a. If the vapor readings equal or exceed the reportable standards for 6 consecutive months, then this suspected release will become a confirmed release. The Technical Section will then determine Trust Fund eligibility and require an environmental assessment to be performed.
 - b. If the vapor readings are variable for 6 to 12 months, then the Technical Section will review the readings to determine if there is a trend, which will aid in determining the next course of action.
 - c. If the vapor readings are less than the reportable standards for 6 consecutive months, then the Technical Section will issue a No Further Action (NFA) letter.
4. When reportable vapors are found, the following procedures must be performed.
 - a. **Report the high vapor reading to our Office within 30 days.**
 - b. Check for possible sources of the high vapors.
 - c. If the well(s) is/are located next to a spill bucket, the spill bucket must be tested.
 - d. If the well(s) is/are located next to the submersible turbine pump (STP) manway, check the STP head, leak detector, and pipe terminations to make sure there are no leaks. If the soil around the STP needs to be excavated to access the STP, leak detector, and piping terminations, then do so.
 - e. If the well(s) is/are located next to a dispenser, check the dispenser and piping terminations for leaks. If the soil under the dispenser needs to be excavated to access the piping terminations, then do so.
 - f. Vapor monitor weekly for a month to determine if the vapor readings are fluctuating in the short term.
 - g. Record this information on the **Weekly Vapor Monitoring** form.
 - h. Submit copies of the following to our office 15 days after completing the weekly vapor monitoring:
 - Completed Weekly Vapor Monitoring form.
 - All applicable test results and summaries.
 - Map/sketch of UST system with monitoring wells numbered accordingly.
 - Last six months of leak detection records for the UST system.

Weekly Vapor Monitoring

Actions Required for High Vapor Readings in Leak Detection Wells at Underground Storage Tank (UST) Sites

UST Facility				Person Conducting Monitoring					
Facility Name		MDEQ Facility ID#		Person's Name					
Physical Address				Company					
City	County	State MS		City	State				
UST Owner				Person's Signature					
Well(s) with high vapor readings located:						Yes	No		
Near a spill bucket? If yes, test the associated spill bucket(s). Use the Annual Spill Bucket Integrity Testing form and check reason for test as Release Investigation. Attach the results of test.									
Next to submersible turbine pump (STP) manway? If yes, check the STP head, leak detector, and pipe terminations for leaks. If the soil around the STP needs to be excavated to access these components, then do so. Attach a summary of findings.									
Next to a dispenser? If yes, check the dispenser and piping terminations for leaks. If the soil under the dispenser needs to be excavated to access the piping terminations, then do so. Attach a summary of the findings.									
Possible sources of the high vapor readings are: <input type="checkbox"/> unknown <input type="checkbox"/> listed below									
<p>Monitor leak detection wells and record findings in the table below:</p> <ol style="list-style-type: none"> 1. First, record the date and vapor readings for the monthly monitoring event which initiated this action. 2. Ensure that the vapor monitoring instrument is calibrated in accordance with the instrument manufacturer's recommendations. 3. For the next four weeks, record the date and the vapor readings in parts per million (ppm) for the leak detection wells. If the well is not dry, record findings as clear water, sheen, or free product in inches (example: 2"). 									
Vapor readings (ppm)									
Vapor Reading	Date	Monitoring Well Number							
		1	2	3	4	5	6	7	8
Initial									
1 st Week									
2 nd Week									
3 rd Week									
4 th Week									

Please submit a copy of this completed form, test results, and summaries as required to the address below. Also, include a map/sketch of the UST system with monitoring wells numbered accordingly, and copies of the last six months of leak detection records for the UST system.