

## How to Complete the Walkthrough Inspection Checklist for Underground Storage Tanks in Kansas

### GENERAL INSTRUCTIONS

The Walkthrough Inspection Checklist is required for UST systems. Monthly checks must be completed every 30 days, and annual checks must be completed each year.

Some items on the checklist will not apply to all UST systems. If an item does not apply to your system, write N/A. Once an item has been completed for the 30-day period, the operator who completed it should initial the box for that item. Inspections should be conducted by an A/B Operator or a C Operator supervised by an A/B Operator. Even if a contractor completes the inspection for the facility, the A/B Operator is still responsible and will be liable for any errors. Document any issues found and corrective actions taken. Make sure any repairs are performed by a Kansas-licensed contractor, and if applicable, that they are licensed in the specific type of work needed. The Walkthrough Inspection Checklist, a list of Kansas-licensed contractors, and other compliance documents can be found on KDHE's website at <https://www.kdheks.gov/tanks/download.html>

### MONTHLY CHECKS

#### 1. Tank Monitor Equipment

##### 1.1. Checked for alarms and normal operating conditions –

**1.1.1. Automatic Tank Gauge (ATG)**— Usually mounted to the wall in an employee area. Check for any alarms, warnings on the display, or red lights. If there is a green light, it should be on.

**1.1.2. Overfill Alarm**—Usually mounted to the outside of the building, will alert to overfill with light or sound.

**1.1.3. Abnormal operating conditions** would include unusually slow dispensing or failure to dispense, strange smells, dead vegetation, or unexplained sheen on pavement or water.

**1.2. Monthly passing test and/or sensor reports from the tank monitor** – Check for a release using an ATG, interstitial monitoring, or vapor monitoring. You may have more than one method in use, in which case you should check all.

**1.2.1. Automatic Tank Gauge (ATG)**—run a leak test and print the results, which you will want to retain.

**1.2.2. Interstitial Monitoring**— sensors are normally connected to the ATG, so do the same as in 1.2.1, or check with a dipstick if you do not have sensors.

**1.2.3. Vapor Monitoring**—As of October 13, 2021, only an acceptable form of release detection for airport hydrant systems and field-constructed tanks.

**1.3. If equipped with vacuum, record readings monthly** – If your interstitial monitoring system has pressure gauges, they will be located in the interstitial monitoring containment sump. Record the reading from each gauge monthly.

**1.4. Vapor monitoring wells covers marked - wells checked monthly** – Vapor monitoring is only an allowable form of release detection for airport hydrant systems and field-constructed tanks. Sites that have undergone remediation due to a release may also have monitoring wells. These wells would be in the tank pad and have smaller covers than the containment sumps. Make sure the covers are not broken and are fitting as designed, and that covers are labeled as to the type of well underneath. Inside the well vault, both monitoring and vapor wells should have undamaged casings fitted with lockable plug caps.



Automatic Tank Gauge (ATG)



Overfill Alarm



Monitoring Well

## Storage Tanks

- 1.5. Readings recorded from hand held device or readings supplied by your vendor monthly** – If you use a handheld gas monitor as part of vapor monitoring, such as a PID or LEL/UEL, you must record the readings monthly.
- 1.6. Inventory control submitted to statistical inventory reconciliation (SIR) vendor once every 30 days** – Does not normally apply if another method of release detection is used. Inventory control records must be processed and the results returned to you and submitted to KDHE within 15 days of the end of the month. Your vendor may send them to KDHE for you.

## 2. Line Monitor Equipment

- 2.1. Checked for alarms and normal operating conditions** – See 1.1 and check for signals from your line leak detectors, such as an alarm, or flow of product from the dispenser slowing or shutting off.
- 2.2. Monthly passing tests and/or sensor reports for secondary containment from the automatic tank gauge or recorded from the digital automatic line monitor equipment** – See 1.2.
- 2.3. Vapor monitoring wells covers marked - wells checked monthly** – See 1.4.
- 2.4. Readings recorded from hand held device or readings supplied by your vendor monthly** – See 1.5.
- 2.5. Piping transition sumps** – These are a type of containment sump accessible from your tank field. Look for product in the sump, as this could indicate a line or a connector is damaged leading to a release. Check for any signs of damage to either the containment sump or the lines, including cracks and rust.

## 3. Cathodic Protection – Impressed Current

- 3.1. Metal tanks and piping not covered or lined with noncorrodible material must be cathodically protected, which is most often done with an impressed current system.** Rectifiers are usually mounted on the outside of the building.
- 3.2. Checked rectifier for normal operation** – The “amps” reading should be slowly decreasing. If the rectifier is reading zero, your system is not protected. If the reading is not changing over time, your cathodic protection system likely has lost power or is malfunctioning
- 3.3. Record amps/ volts/hours if present, once every 30 days** – Record the reading from your rectifier at least every 30 days. KDHE provides a form for the annual rectifier log summary that must be submitted at the end of the year.
- 3.4. Record green light indicator every 30 days if equipped** – If your rectifier has a green light, it should be on as long as the system is operating properly. Document every 30 days whether it is on.



*Rectifier, part of an impressed current system*

## 4. Spill Basins

- 4.1. Checked for damage and cracks, remove any liquid or debris** – Spill basins should be cleaned regularly. Look for evidence of damage or rust on the bucket itself, and the portion of the drop tube visible in the spill basin. If your spill bucket has a drain, it should have a screen in place to filter product being drained into the tank.
- 4.2. Fill cap fits tight, rubber gasket not torn or missing** – The cap should be intact and fit tightly.
- 4.3. Spill basin cover fits correctly, does not wobble or is not broken** – The cover should fit, and both the top of the spill basin and the lid should be intact, not chipped or otherwise damaged.
- 4.4. Drop tube is present with no obstructions** - The drop tube attaches to the fill port and extends within one foot of the bottom of the tank. It may be obstructed by foreign objects or knocked out of place, usually by a delivery driver trying to unload faster or bypass overfill prevention. This can be checked using a tank-gauging stick — if the stick does not reach the bottom of the tank or cannot be inserted vertically, the drop tube may be obstructed or may have been dislodged.



*Closed fill port in a spill bucket*

### ANNUAL CHECKS

5. **Manual Tank Gauging (Recommended Monthly)**-- Note that even if you use an ATG to monitor tank levels, you should have a stick and a tank chart, and best practice is to gauge the fuel and water levels with the stick monthly if you normally rely on an ATG.

- 5.1. **Check condition of stick - plastic tip present, numbers readable** – The stick should not be warped, the tip should be intact and the stick should be legibly numbered so that readings can be taken to the nearest 1/8 inch.
- 5.2. **Correct tank chart being used** – Depth readings should be converted to volume in the tank using a chart that relates depth to volume based on the shape of the tank.



*Stick for fuel gauging, fuel-finding paste, and other equipment*

6. **Under Dispenser with or without containment (recommended monthly)**

- 6.1. **Interstitial monitoring sensor in correct position** – Only if the system has under dispenser containment and interstitial monitoring. The sensor should be placed at the bottom of the containment sump and the wires should be intact.

- 6.2. **No liquid or debris, no signs of cracks or holes** – Only if under dispenser containment is installed. Presence of liquid indicates that product is leaking from the dispenser system or that water is intruding into the cabinet, meaning it could contaminate product or corrode the system. Debris can also indicate damage or obscure issues in the dispenser cabinet.

- 6.3. **Test boot (if applicable ) pulled back so interstice is not blocked** – This only applies to double-walled piping. A test boot is a flexible sleeve, usually made of rubber, used to isolate the secondary containment of piping during tightness testing. When in use, the test boot will seal over both walls of the pipe where it connects to the containment sump, covering the interstitial space. Otherwise the test boot should be pulled back.

- 6.4. **Shear valve is anchored and installed correctly** – The shear valve should be mounted to the concrete island itself, not the dispenser, using a steel bracket and U bolts within 1.5 inches of the island's surface.

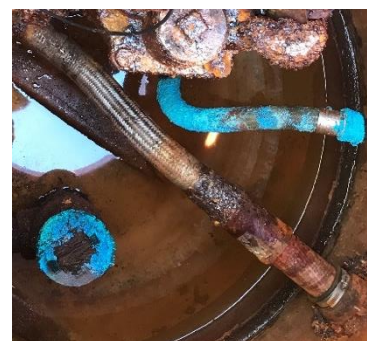
- 6.5. **Flex connectors show no signs of leakage or swelling** – Flex connectors are small hoses used to join pipes, and are usually made of synthetic materials or braided steel. They may not be entirely visible in parts of the system without containment, but if they are in contact with soil, they must be booted, wrapped, or have cathodic protection. Look for tears, swelling, discoloration, corrosion and evidence of leaking such as product on or below the connectors. If you find any damage to a flex connector, contact your contractor about replacing it.



*Under dispenser containment*



*Shear valve anchored with steel bracket*



*Flex connector in poor condition (note the discoloration)*



### 7. Sumps with or without secondary containment

- 7.1. Manhole cover fits correctly** – All lids should completely cover their sumps and not be chipped or damaged.
- 7.2. Containment sump lid in good condition** – usually the same as the manhole cover—see 7.1.
- 7.3. Interstitial monitoring sensor in correct position** – for sumps with secondary containment and interstitial monitoring, see 6.1.
- 7.4. No liquid or debris, no signs of cracks or holes** – If your sumps have secondary containment, the presence of liquid could indicate a release or could result in water intruding into the system, possibly causing corrosion or contaminating product. Debris can also indicate damage or obscure other issues in the containment sump.
- 7.5. Test boot (if applicable ) pulled back so interstice is not blocked** – See 6.3.
- 7.6. Flex connectors no signs of leakage or swelling** – See 6.5.



*Test boot pulled back from wall of containment sump*

Kansas Department of Health and  
Environment

Storage Tank Section

<https://www.kdheks.gov/tanks/index.html>

[kdhe.tankinfo@ks.gov](mailto:kdhe.tankinfo@ks.gov)

Small Business Environmental Assistance  
Program

<https://www.sbeap.org/storage-tanks>

[sbeap@ksu.edu](mailto:sbeap@ksu.edu)

(800) 578-8898

This publication was created by Kansas State University's Pollution Prevention Institute through the Small Business Environmental Assistance Program (SBEAP). SBEAP's mission is to help Kansas small businesses comply with environmental regulations and identify pollution prevention opportunities. SBEAP is funded through a contract with the Kansas Department of Health and Environment. SBEAP services are free and confidential. For more information, call 800-578-8898, send an email to [sbeap@ksu.edu](mailto:sbeap@ksu.edu), or visit our website at [www.sbeap.org](http://www.sbeap.org). Kansas State University is an EEO/AA provider.

Kansas State University prohibits discrimination on the basis of race, color, ethnicity, national origin, sex (including sexual harassment and sexual violence), sexual orientation, gender identity, religion, age, ancestry, disability, genetic information, military status, or veteran status, in the university's programs and activities as required by applicable laws and regulations. The person designated with responsibility for coordination of compliance efforts and receipt of inquiries concerning the nondiscrimination policy is the university's Title IX Coordinator: the Director of the Office of Institutional Equity, [equity@k-state.edu](mailto:equity@k-state.edu), 103 Edwards Hall, 1810 Kerr Drive, Kansas State University, Manhattan, Kansas 66506-4801. Telephone: 785-532-6220 | TTY or TRS: 711. The campus ADA Coordinator is the Director of Employee Relations and Engagement, who may be reached at [charlott@k-state.edu](mailto:charlott@k-state.edu) or 103 Edwards Hall, 1810 Kerr Drive, Kansas State University, Manhattan, Kansas 66506-4801, 785-532-6277 and TTY or TRS 711. Revised Aug. 29, 2017

**KANSAS STATE**  
UNIVERSITY