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Chapter 1  Introduction

This Tank Operator Reference Guide is designed for an Underground Storage Tank (UST) operator and provides the minimum requirements on how to correctly operate and maintain regulatory compliance for Tennessee UST systems. Owners and Operators are both responsible parties under the Tennessee Petroleum Underground Storage Tank Act (UST Act) T.C.A. § 68-215-101 et. seq. This guide provides information on:

- Forms and Notification
- Fees and Registration
- Red Tags
- Financial Responsibility
- Operator Training
- Release Detection
- Corrosion Protection
- Spill and Overfill Prevention
- Motor Fuel Dispensers
- Temporarily Out of Service (TOS)
- UST System Closure
- Repairs and Replacement

This guide also highlights best management practices and voluntary actions that you can take to improve environmental protection and reduce financial liabilities.

Why This Matters

- You are helping to protect public health and the environment. Releases from USTs, spills, overfills, leaking tanks and piping can contaminate soil and groundwater. Your local community may depend on groundwater as a source of drinking water. In addition, leaks from USTs can result in fires or explosions, which threaten public safety.

- Preventing releases protects your business investment. It is important to maintain compliance and quickly detect and report releases. Cleanup costs from a release, in addition to potential penalties, can be expensive and result in business down time. Also, the value of your property may be negatively impacted from a petroleum release. By responding quickly and containing a release, you may be able to reduce cleanup costs and environmental damage.

This document is not a substitute for Tennessee law and regulations, nor is it a law or regulation itself. For a comprehensive and complete understanding of the law and regulations, please refer to the UST Act and the Underground Storage Tank Rules, Chapter 0400-18-01. The Rules can be accessed from the Tennessee Secretary of State's website: [https://publications.tnsosfiles.com/rules/0400/0400-18/0400-18.htm](https://publications.tnsosfiles.com/rules/0400/0400-18/0400-18.htm).
The Division of Underground Storage Tanks (Division) has the following fillable forms available on our website: https://www.tn.gov/environment/program-areas/ust-underground-storage-tanks/forms-guidance.html:

### Notification

<table>
<thead>
<tr>
<th>FORM DESCRIPTION</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buyers Notification</td>
<td>CN-1392</td>
</tr>
<tr>
<td>Change of Owner Mailing Address</td>
<td>CN-1383</td>
</tr>
<tr>
<td>Notification for Underground Storage Tanks</td>
<td>CN-1260</td>
</tr>
<tr>
<td>Notification of Indicia of Ownership</td>
<td>CN-1186</td>
</tr>
<tr>
<td>Pre-Installation Notification Form</td>
<td>CN-1288</td>
</tr>
<tr>
<td>Seller Reporting Change of Ownership</td>
<td>CN-0911</td>
</tr>
</tbody>
</table>

### Operational Compliance

<table>
<thead>
<tr>
<th>FORM DESCRIPTION</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Automatic Tank Gauge Operability Test Report</td>
<td>CN-2624</td>
</tr>
<tr>
<td>Annual Electronic Interstitial Monitoring Report</td>
<td>CN-1339</td>
</tr>
<tr>
<td>Containment Sump Integrity Hydrostatic Test Report</td>
<td>CN-2664</td>
</tr>
<tr>
<td>Daily Record of Visual Inspection for Incompatible Dispenser Components</td>
<td>CN-1284</td>
</tr>
<tr>
<td>Equipment Compatibility Checklist</td>
<td>CN-1285</td>
</tr>
<tr>
<td>Galvanic Cathodic Protection Testing Survey</td>
<td>CN-1140</td>
</tr>
<tr>
<td>Impressed Current Cathodic Protection Rectifier Reading Form</td>
<td>CN-1282</td>
</tr>
<tr>
<td>Impressed Current Cathodic Protection Testing Survey</td>
<td>CN-1309</td>
</tr>
<tr>
<td>Low Level Hydrostatic Sump Testing Form</td>
<td>CN-2644</td>
</tr>
<tr>
<td>Monthly / Annual Facility Walkthrough Inspection Form</td>
<td>CN-2544</td>
</tr>
<tr>
<td>Monthly Electronic Interstitial Monitoring Report</td>
<td>CN-1340</td>
</tr>
<tr>
<td>Monthly Spill Bucket Inspection Log</td>
<td>CN-1286</td>
</tr>
<tr>
<td>Overfill Prevention Operability Test</td>
<td>CN-2584</td>
</tr>
<tr>
<td>Precision Line Tightness and Leak Detector Test</td>
<td>CN-1341</td>
</tr>
<tr>
<td>Quarterly Dispenser Inspection Log</td>
<td>CN-1287</td>
</tr>
<tr>
<td>Spill Prevention Device Hydrostatic Test Report</td>
<td>CN-1366</td>
</tr>
<tr>
<td>Statement of Compatibility</td>
<td>CN-1283</td>
</tr>
<tr>
<td>Tank Tightness Test Report</td>
<td>CN-1601</td>
</tr>
</tbody>
</table>

Use the map on the following page to contact the nearest field office for your facility.
Chapter 2    Fees and Registration, Red Tags, and Financial Responsibility

Registration identifies the tank owner, the equipment installed, the physical address of the location, the number of tanks, contents, size, material of construction, etc. Notify the Division at least 15 days prior to installation of petroleum underground storage tanks and/or UST systems by submitting the Pre-Installation Notification for Underground Storage Tanks (CN-1288) which can be found at: https://www.tn.gov/environment/program-areas/ust-underground-storage-tanks/notification-fees.html.

Tanks containing blended fuels greater than 10% ethanol, or 20% biodiesel must complete and submit an Equipment Compatibility Checklist (CN-1285) and Statement of Compatibility (CN-1283). If installing a new UST system, the forms should be included with Form CN-1288.

In addition to the pre-installation form, you must submit a completed Notification for Underground Storage Tanks, form CN-1260, within 15 days after installation of the new UST system(s).

All tank owners/facilities must have the business name registered with the Tennessee Secretary of State.

You must also notify the Division any time changes are made to any of your USTs. The following changes must be reported to the Division within 30 days of the change:

- Ownership: address of owner and operator, upgrading or replacement of tanks or piping, temporary or permanent closure of tank or tank compartment, release detection method, product stored, and contact information

- Change in service or changing a product stored from regulated to non-regulated

- Class A or Class B Operators changes must be reported on the Division's web-based training database located at: https://tdec.tn.gov/tankhelper

You can download a notification form on our website:

- https://www.tn.gov/environment/program-areas/ust-underground-storage-tanks/notification-fees.html

or

- You can request a notification form by contacting staff at any environmental field office (see map above) or by emailing UST.Tanks@tn.gov.
On July 1, 2004 the Tennessee Petroleum Underground Storage Tank Act (UST Act) began providing authority to affix a notice or tag to a dispenser and/or fill port for any tank without a current certificate. The Federal Energy Policy Act of 2005 next required states receiving Federal funding to have a delivery prohibition program. Consequently, the Division developed and implemented a process to comply with the laws.

On July 1, 2008 new amendments to the UST Act simplified whether or not fuel could be placed into an UST by eliminating the annual certificate. Consequently, beginning July 1, 2008, the following changes took effect:

- The Division no longer issues a certificate to each facility;
- The Division issues a receipt for the annual tank fees that is not tied to the ability to receive fuel; and
- The Division has the authority to affix a red tag to each fill port on all USTs at a facility, prohibiting fuel deliveries for:
  - Failure to pay annual tank fees and associated late penalties; and
  - Fees are suspended from 7/1/2021 to 6/30/2026*
- Violations that result in a final order and civil penalties

Sites under Delivery Prohibition are posted on the Division's website. The current prohibition list is updated regularly for distributors to review. The red tag process applies to all tanks at a facility, and the red tag(s) cannot be removed until you receive a written authorization for removal from the Division's Director. As stated on the red tag, unauthorized removal of a red tag is a Class C misdemeanor in accordance with T.C.A. § 68-215-106(d) red tag.

UST owners/operators are required to maintain financial responsibility for a release from a UST system. Financial responsibility means you must:

1) Pay for the cost of cleaning up contamination, and/or
2) Compensate third parties for property damage and/or bodily injury.

Tennessee is fortunate to have a state fund that is available to owners to help with the costs to clean up fuel releases. An Application for Fund Eligibility (CN-0943), can be found on the Division’s website: https://www.tn.gov/environment/program-areas/ust-underground-storage-tanks/forms-guidance.html. The application must be completed and filed by the required deadlines to receive reimbursement. An operational compliance inspection will be conducted to determine your compliance status at the time of a suspected or confirmed petroleum release. The deductible amount you will pay to clean up your site may be higher if your facility is not in compliance with rules or all required operational compliance records are not submitted; therefore, maintaining and documenting operational compliance is important. Also, the deductible amount can be reduced if the UST system equipment meets certain criterion.
Chapter 3  Operator Training & Tennessee Tank Helper

Operator Class Summary

The Federal Energy Policy Act of 2005 requires that every facility have a designated and trained Class A, Class B and Class C operators.

<table>
<thead>
<tr>
<th>Who fits this class of operator?</th>
<th>Class A Operator</th>
<th>Class B Operator</th>
<th>Class C Operator</th>
</tr>
</thead>
<tbody>
<tr>
<td>The individual who generally focuses on the statutory and regulatory requirements related to operating and maintaining the UST system</td>
<td>The individual who is generally responsible for field implementation of applicable UST regulatory requirements and implements day-to-day aspects of operating, maintaining, and recordkeeping for USTs at one or more facilities</td>
<td>The individual who is generally the first line of response to events indicating emergency conditions or responding to alarms</td>
<td></td>
</tr>
</tbody>
</table>

The tank owner is responsible for designating a Class A and Class B operator at each facility. The owner may also choose to complete operator training as Class A and/or Class B operator.

To meet Class C operator requirements, a sign or instruction manual (not required for unmanned facility) must be placed where it can be seen during the normal course of work. At a minimum, the sign or manual must include the following:

1. Employee's role in responding to spills and overfills,
2. Procedures for handling warnings, alarms, and response from leak detection console (if applicable),
3. Name and number of contact person for emergencies and monitoring equipment alarms,
4. Local emergency numbers, and
5. An instruction to maintain a safe distance from any potential hazards.

If your facility is unmanned, then the designated Class B operator, who is also trained as the designated Class C operator, will cover this requirement.
Options available for meeting operator training requirements are:

✓ **Tennessee Tank Helper**
   The Division provides a free online training program to meet all operator class requirements. An UST system owner can complete the operator training based on the existing notification information for the facility. The owner must update incorrect information by completing an amended Notification for Underground Storage Tanks (CN-1260). UST system operators are required to complete all training modules. A certificate can be printed when the training modules have been successfully completed.

✓ **National UST System Operator Exam**
   A Class A and/or Class B operator exam administered by the International Code Council (ICC) can be used to meet the Class A and/or B operator training. There is a nominal charge for each exam and if the applicant successfully completes the exam, they receive a certificate good for two years.

✓ **Tank School**
   The Division provides a one-day training class, taught by Division personnel, for owners/operators or any interested parties taught that covers all aspects of UST operational compliance. Anyone who scores 70% or higher on the class final exam will receive a certificate of A/B operator training. Everyone else will receive a certificate of completion.

The owner must use Tennessee Tank Helper (website at https://tdec.tn.gov/tankhelper) to create an account and designate a Class A and a Class B operator at each facility. **If the Class A and/or Class B operators change, the new operator(s) must be designated within 30-days.** If you need assistance, please contact TDEC help desk BG-Help_desk@tn.gov or call (615) 532-0287 and ask for operator training assistance. One thing to keep in mind is that if significant violations are found during an inspection, operator retraining will be required.

The following section of this operator manual shows the Tennessee Tank Helper online step by step processes to:

1) Create a new account
2) Account login
3) Training dashboard
4) Operator adding an owner's account
5) Owner's designating operators at their facilities, and
6) Operators accepting the owner's designation.
Creating a New Account

To create a new account, click on Register.

Enter email address twice and select the CONTINUE button.
Complete the new user information to create an account.

Make note of login information with password for later use.

To receive notification via text message, enter cell phone number along with the carrier’s information.

Click **CONTINUE**.

An **email** will be sent containing a link that must be used in 30 minutes.

Open the email and click the link to continue.
EMAIL VALIDATION

This is the email with the link from bg-help_desk@tn.gov.

Click on Click Here.

Click on the link to verify your email.

EMAIL VALIDATION (Cont’d)

The email link navigates to the email validation screen.

Click on Log In.
Login using the email address and password (the password entered when completing the user profile).

Click **Log In**.

Choose phone or email option to receive a six-digit security code.

If a phone number and carrier was previously entered, a six-digit code will be sent by text message.

Otherwise, the six-digit code will be sent by email.

Click **CONTINUE**.
APPLICATION LOGIN (cont’d)

Enter the six-digit code received from text message or email.

Click CONTINUE.

APPLICATION LOGIN SUCCESSFUL

Click on the GO TO DASHBOARD button to complete the user profile.
A user profile must be completed for account setup. (Company name and phone2 fields are not required.)

Complete Step 1
Click CONTINUE.

Complete Step 2
Click CONTINUE.
Complete Step 3
Select Owner or Operator Role.

The owner ID (**not the facility ID**) is entered for the owner or owner’s authorized representative role.

Click **CONTINUE**.

Complete Step 4
Click **SUBMIT**.
This is the DASHBOARD for operator training AND operator designations.
**Existing Account Login**

To access your Tank Helper account, go to the website [https://tdec.tn.gov/tankhelper](https://tdec.tn.gov/tankhelper) and login using your email and password.

To login, a six-digit code must be entered each time.

The code is sent by text or email.
Training Dashboard

The type of dashboard displayed (owner or operator) will be based on the previously selected role.

The arrow points to **My Trainings** tab (to the right of the Designation Information tab).

**Click** **My Trainings** tab.
Click **Start Training** button for the required operator class module(s).

All modules do not have to be completed during one login session.

**Note:**
There are 4 modules for Class B training. All 4 modules must be completed to obtain the certificate.

Interstitial Monitoring, ATG and Pressurized Piping is automatically selected and required for all Class B operators.

For the Class B Operator Tank and Piping Release Detection Modules, SIR, Suction Piping, and MTG must be individually selected.
 TRAINING – CLASS A OPERATOR EXAMPLE

Each module will have a similar start page.

 CERTIFICATE - CLASS A OPERATOR EXAMPLE

Certificate can be printed from My Trainings Tab when all the modules are successfully completed (70% exam score or better).

Note there is a separate certificate for Class A, B and C operator training.
Operators: Adding Owner's Account

**LOGIN**

To access your Tank Helper account, go to the website [https://tdec.tn.gov/tankhelper](https://tdec.tn.gov/tankhelper) and login using your email and password.

---

**OPERATOR DASHBOARD**

From blue banner at the top of the page, click “Add Owner Account”.

---

1. To access your Tank Helper account, go to the website [https://tdec.tn.gov/tankhelper](https://tdec.tn.gov/tankhelper) and login using your email and password.
2. From blue banner at the top of the page, click “Add Owner Account”.
ADD OWNER ACCOUNT

Enter your owner ID (not facility ID) and click **SUBMIT**.

UNSUCCESSFUL OWNER ID ENTERED

This screen displays when an owner ID entry is unsuccessful.
SUCCESSFUL OWNER ID ENTERED

This screen displays when an owner ID entry is successful.

Multiple owner IDs may be added to an account.
Owners: Designating Operators for Your Facility

**LOGIN**

To access your Tank Helper account, go to the website [https://tdec.tn.gov/tankhelper](https://tdec.tn.gov/tankhelper) and login using your email and password.

**OWNER DASHBOARD**

On the dashboard, locate desired facility and select “Add Operator” from the right portion of the screen.
ADD OWNER AS THE A / B OPERATOR

To designate an owner or owner's representative as the Class A / B Operator, select “Add Myself as an Operator.”

OPERATOR ROLE AND TRAINING METHOD

Select facilities and check corresponding Class A / B operator checkboxes.

Select operator training method underneath facilities’ list at the bottom left.

Select SUBMIT.
ADD OTHER(S) AS THE A / B OPERATOR

If owner or owner’s representative is not the operator, use the search feature to locate the correct individual.

ADD OTHER(S) AS THE A / B OPERATOR (cont’d)

Verify all operator information is correct before making the selection.

A / B OPERATOR ROLE SELECTION

Select A / B operator role for corresponding facilities.

Select SUBMIT.
Operators: Accept the Designation from the Owner

LOGIN

To access your Tank Helper account, go to the website https://tdec.tn.gov/tankhelper and login using your email and password.

DASHBOARD – ACCEPT OR REJECT PENDING DESIGNATIONS

On the dashboard, select the “My Designations” tab. Accept or Reject the displayed Operator A / B Designations.
DASHBOARD – ACCEPT PENDING DESIGNATIONS & TRAINING METHOD

If the designation is accepted, this pop-up window displays.

Select Training Method.
Comments are optional.
Click SUBMIT.

DASHBOARD – REJECT PENDING DESIGNATIONS & TRAINING METHOD

If designation is rejected, this pop-up window displays.
Comments are optional.
Click SUBMIT.
Chapter 4  Release Detection for Tanks & Piping

All regulated tanks and piping must have release detection (also called leak detection) so that leaks are discovered quickly. The release detection method, or combination of methods, must meet the following requirements:

- Detect a leak from any portion of a tank or its piping that routinely contains petroleum;
- Is installed and calibrated in accordance with the manufacturer’s instructions and is operated and maintained in accordance with one of the following:
  - The manufacturer’s instructions,
  - A recognized code of practice and
  - Division approved requirements;
- Ensures that electronic and mechanical components are tested for proper operation annually;
- Meets the performance requirements for the tank and piping release detection method; and
- Has had a third-party evaluation reviewed by the National Work Group on Leak Detection Evaluations (NWGLDE), and a listing of the leak detection equipment or method appears on the list maintained by the NWGLDE. NWGLDE’s website is located at http://nwglde.org/

All release detection methods have specific record keeping requirements. The requirements for each method are detailed below.

To effectively detect releases as designed, release detection equipment must not be disabled or tampered with. T.C.A § 68-215-120(b) states, “Any person who knowingly tampers with or disables a release detection or prevention device associated with an underground storage tank, or who knowingly causes or allows a release of petroleum into the environment in violation of this chapter, rules, regulations or orders of the commissioner or board commits a Class E felony; provided, however, that, if such release results in an expenditure for cleanup by any other person or from the fund, the offense shall be graded for such expenditure in the same manner as theft under § 39-14-105(a)(2)-(5).”

Release Detection for Tanks

The following monthly release detection methods are allowed for tanks:

- Interstitial Monitoring (IM) - IM must be used for all tanks installed on or after July 24, 2007
- Automatic Tank Gauging (ATG)
- Statistical Inventory Reconciliation (SIR)
- Manual Tank Gauging & Tank Tightness Testing (MTG)

The Division has written detailed technical chapters for each of the above release detection methods. These documents can be reviewed at https://www.tn.gov/environment/program-areas/ust-underground-storage-tanks/compliance-inspections/standardized-inspection-process.html.
Automatic Tank Gauging (ATG)

An ATG system consists of a permanently installed probe inside your tank that collects information such as product level and temperature, and a console inside the facility which calculates changes in product volume that can indicate a leak. The console should signal an alarm when there is a suspected problem. An ATG must be able to detect a 0.2 gallon per hour (gph) leak. Below is a brief outline of the general requirements for ATGs. A more detailed description of the requirements is available in the Division's Standardized Inspection Manual, Technical Chapter 3.2 Automatic Tank Gauging.

Operating your ATG:

- **STATIC TESTING**
  - Some ATGs can be programmed to automatically conduct a static leak test at least every 30 days. If your ATG does not test automatically, you must manually conduct a static leak test
  - Static testing cannot be used for manifolded tank UST systems

- **CONTINUOUS TESTING**
  - Some ATGs have internal computer software that allows tanks to remain active while leak testing is performed. These methods are known as Continuous Statistical Leak Detection (CSDL) or Continuous In-Tank Leak Detection System (CITLDS) which is appropriate for use at high throughput volume locations

- All ATGs require a certain minimum amount of product in the tank to conduct a valid test

- It is **not** a recommended practice to rely on the ATG computer software memory to store leak detection records because a power surge or lightning strike may cause you to lose all your electronic records

- Pay attention to all alarms and respond appropriately

- Keep your ATG user manual handy for reference and troubleshooting

Requirements:

- Conduct a static leak test **at least once per month for each tank** if the leak test isn't done automatically

- Conduct ATG operability testing annually

- Perform routine maintenance required by the ATG manufacturer

Record Keeping and Reporting:

- Print, review and keep at least **one** passing monthly leak test result for each tank from the ATG

- Record release detection results on the Monthly/Annual Facility Walkthrough Inspection Form (CN-2544)

- Keep the last 12 consecutive months of leak detection results and make available for inspection

- Maintain the last 3 years of annual ATG operability tests
• If applicable, report a suspected release within 72-hours as outlined in the Reporting Section

Statistical Inventory Reconciliation (SIR)

The SIR method can be used on tanks and piping. SIR uses a computer software program to perform a statistical analysis of inventory, delivery, and dispensing data every 30 days. This data is sent to a SIR vendor (or entered into a computer program leased to the tank owner by the SIR vendor) at least once every 30 days. Once data is analyzed, the SIR vendor must provide the results of the analysis within the reporting period. A gauging stick or ATG is used to gather inventory data. SIR requires the tank owner to follow specific data collection procedures (daily 1/8\textsuperscript{th} inch fuel measurements, monthly water readings, annual dispenser meter calibration, deliveries through drop tubes, etc.). The SIR method must be listed as meeting the performance standards by the National Work Group on Leak Detection Evaluations (www.nwglde.org). A more detailed description of the requirements is available in the Division's Standardized Inspection Manual, Technical Chapter 3.3 Statistical Inventory Reconciliation.

If SIR is being used for monthly monitoring on pressurized piping, the automatic line leak detector (both mechanical and electronic) must be tested annually.

Monthly SIR results are reported as \textit{pass, fail, or inconclusive}.

\textbf{Pass}

A passing SIR result means the statistical analysis of the data is within the allowable limits of the method.

\textbf{Fail}

A failing SIR result means the statistical analysis of the data exceeds the allowable limits of the method. Failing results are a suspected release and must be reported to the Division within 72 hours.

\textbf{Inconclusive}

An inconclusive result means the quality of the data is insufficient to provide a pass or fail result. The problem might be a result of poor measurements, improperly calibrated meters, missed deliveries or something else. If an inconclusive monthly result is received, you must investigate immediately and correct the problem. Contact the SIR vendor for assistance. Document results of your investigation and keep with leak detection records.

If you receive inconclusive results for two consecutive months, it is a suspected release and must be reported to the Division within 72 hours.

\textbf{Requirements:}

• A contract with a SIR provider to analyze monthly leak detection records or a SIR program which can be operated on your computer to conduct SIR analysis.
• Collect product inventory data (gauging stick, or ATG) daily.
• Convert fuel level measurements to gallons using the correct tank chart.
• Collect and record adequate inventory data every 30 days using inventory control data collection requirements [see rule 0400-18-01-.04(3)(e)1. and .04(4)(d)1.].
• Have records analyzed every 30 days either by SIR provider or a computer program leased to the tank owner by the SIR vendor. A report shall be generated monthly, after the end of the data collection for that time period.
• Investigate, determine the reasons, and correct the causes for any inconclusive results.
• If you are using an ATG to collect inventory data, conduct ATG operability testing annually.
• If you are using an ATG, perform routine maintenance required by the ATG manufacturer.
• If you have pressurized piping, test the operability of the mechanical or electronic line leak detector annually.

**Record Keeping and Reporting:**

- Record monthly SIR results and annual hand-held equipment (gauging stick) inspections on the Monthly/Annual Facility Walkthrough Inspection Form (CN-2544).
- Maintain the following SIR records:
  - Monthly SIR report/results.
  - All inventory data (product deliveries and sales, dispenser calibration records, daily 1/8th of an inch fuel measurements, monthly water readings, annual dispenser meter calibration, etc.) must be maintained and available upon inspection.
- Maintain the last 12 consecutive months of leak detection results.
- For pressurized piping, maintain annual line leak detector test results for 3 years.
- Report all suspected releases within 72 hours (any fail or any two consecutive inconclusive results).
- If applicable, maintain the last 3 years of ATG annual operability tests.
Interstitial Monitoring Using Secondary Containment

Interstitial monitoring (IM) is a leak detection method that detects releases in the space between tank walls or piping walls, or between a single wall piping and a barrier separating it from the environment (such as a sump or chase pipe). A more detailed description of the requirements is available in the Division's Standardized Inspection Manual, Technical Chapter 3.4 Secondary Containment and Interstitial Monitoring.

The outer barrier is often called “secondary containment”. The space between the barriers is called the interstitial space or interstice, and for tanks and piping this space must be monitored continuously. You must have an electronic or other continuous means of monitoring secondarily contained pressurized piping. Visual observations are not considered continuous monitoring.

This method must be capable of detecting a release from the inner wall of a tank or piping. Three types of interstitial monitoring are commonly used:

- **Hydrostatic Methods** - uses a liquid-filled interstice with a reservoir where the liquid level is monitored.
- **Pressure/Vacuum Methods** - pressure or vacuum is applied to the interstice and changes in pressure or vacuum are monitored.
- **Electronic sensors** – sensors are placed in the interstice to signal an alarm when liquid is detected.

Electronic sensors are the most common and least expensive way to conduct interstitial monitoring. For tanks, a sensor is installed between tank walls to check for the presence of a liquid or the loss/gain of liquid as is the case for hydrostatic methods. For piping, a sensor is placed in a location where liquid from a leak would most likely accumulate. Typically, this location is inside a sump at the top of the tank, inside piping transition sumps, and in a sump under the dispenser. The pipe interstice must be open to allow product to flow from the pipe interstice to the liquid sensors in all sumps. The use of a single sensor inside a sump at the top of the tank to monitor the entire product piping run is not acceptable.

**Operating IM Equipment:**

- Sump sensors sound an alarm when liquid is detected in sumps.
- Disabling or tampering with a sensor is a criminal offense.
- Moving a sensor out of position so that it will not be able to easily detect liquid is a violation.
- Sensors can malfunction; therefore, you must conduct testing of sensors annually to ensure proper function.
- If a sensor detects water or petroleum between the walls of a double wall tank, it is a suspected release and must be reported to the Division within 72 hours.
- If water can enter the outer wall of a double wall tank, the tank no longer has secondary containment. This condition must be investigated.
- If using a liquid-filled or sealed pressure/vacuum system, you must refer to the user's manual to determine if the system is operating within correct parameters.
**Requirements:**
- Conduct ATG operability testing annually.
- Perform routine maintenance required by the ATG manufacturer.
- Monitor release detection system to determine if a leak was detected within the last 30 days.
- All interstitial monitoring equipment (ATG console, sensors, and line leak detectors) must be tested annually to ensure proper function.
- Conduct sump integrity tests every 3-years.

**Record Keeping and Reporting:**
- If the interstitial monitoring equipment does not produce an electronic monthly record, you must create a paper record to satisfy recordkeeping requirements.
- Record release detection results on the Monthly/Annual Facility Walkthrough Inspection Form (CN-2544). A sensor status report and alarm history report must be kept monthly.
- Maintain the last 12 consecutive months of release detection records.
- Maintain the most recent 3-year sump integrity test.
- Maintain the last 3 years of annual
  - ATG operability tests.
  - Sensor function tests
  - Line leak detector tests
- Report all suspected releases within 72 hours.
Manual Tank Gauging (MTG)

Manual Tank Gauging (MTG) is a valid method of monthly monitoring; however, it is not commonly used. MTG can only be used for tanks with a capacity of 1,000 gallons or less. To determine if your tank qualifies to use this method, please refer to the Division's Standardized Inspection Manual, Technical Chapter 3.1 Manual Tank Gauging or contact the Division.

To use MTG as a standalone method:

- Tanks must meet very specific capacity and diameter requirements (see chart in Technical Chapter 3.1);
- Liquid levels inside the tanks must be measured to the nearest 1/8th of an inch (typically measured with a gauging stick);
- Tanks must be taken out of operation for a specified period of time each week between collection of the liquid level reading; and
- Liquid level readings are compared to weekly and monthly standards to determine if the tank is tight.

MTG & Tank Tightness Testing

Tanks from 1,001 gallons to 2,000 gallons must use Tank Tightness Testing in addition to MTG. Tanks over 2,000 gallons may not use MTG.

Record Keeping and Reporting:

- Record release detection results on the Monthly/Annual Facility Walkthrough Inspection Form (CN-2544).
- Keep the last 12 consecutive months of leak detection results and have available for inspection: and
- Report all suspected releases within 72 hours.
Release Detection for Piping

There are two types of piping systems:

- Pressurized
- Suction

Leak detection requirements are different for pressurized piping and suction piping. The following describes the requirements for both types of piping systems.

Pressurized Piping

Pressurized piping must have two forms of leak detection:

1. **Catastrophic** - to detect large sudden releases, such as a piping failure. Catastrophic line leak detection is performed by Automatic Line Leak Detectors (LLDs or ALLDs). ALLDs may be mechanical or electronic. It is important to respond quickly to line leak detector alarms (electronic) or slow flow conditions (mechanical) since the volume of the release could be substantial (more than 3 gallons per hour). Mechanical and electronic line leak detectors must be tested annually.

2. **Periodic** - to detect smaller, less noticeable releases. Periodic line leak detection must be performed either monthly or annually. There are three options:
   
   a. Monthly Monitoring*, or
   b. Annual Line Tightness Testing, or
   c. Electronic Line Leak Detectors (conducting 0.2 gph monthly or 0.1 gph annual testing).

*For piping monthly monitoring, you must use one of the following two methods that are described in the Release Detection for Tanks section of this chapter:

- Interstitial Monitoring (required for new and replacement piping), or
- SIR.

Line tightness test must be performed by a qualified tester (certified by the manufacturer). Line tightness testing must be able to detect a 0.1 gallon per hour leak rate at 1.5 times the operating pressure of the piping or conduct an annual 0.1 gph test using an electronic line leak detector.

For additional information please refer to the Division's Standardized Inspection Manual, Technical Chapter 3.5 Pressurized Piping.
**Suction Piping**

Suction piping pulls product from the tank using a suction pump in the dispenser. The presence of suction piping is indicated by a suction pump (pulleys and belts) inside the dispenser. In addition, there is no submersible pump in the tank.

Leak detection is NOT required for suction piping that meets BOTH of the following conditions:

1. The piping is sloped so product will drain back to the tank if suction is lost;
2. There is only one check valve located near the suction pump beneath the dispenser (and not at the tank).

Piping that meets BOTH conditions is called “safe suction” or “European suction”.

If you do not have “safe suction” and instead have a suction type that is referred to as “U.S. suction”, you must conduct suction piping leak detection. This consists of:

- A line tightness test every three years, or
- Monthly monitoring using Interstitial Monitoring (required for new and replacement piping), or SIR.

For additional information please refer to the Division's Standardized Inspection Manual, Technical Chapter 3.6 Suction, Gravity Feed, & Siphon Piping.

**Requirements:**

- Mechanical and electronic line leak detectors must be tested annually (every 12 months).
- Pressurized piping must have an annual line tightness test every 12 months, or monitored monthly with Interstitial Monitoring (IM) or SIR.
- For suction piping that is not considered “safe suction”, a tightness test must be conducted every 3 years or monitored monthly with IM or SIR.

**Record Keeping and Reporting:**

- Keep the last 12 consecutive monthly monitoring results (IM or SIR), and/or the annual line tightness test.
- Maintain records of the last 3 annual line leak detector tests.
- For interstitial monitoring on pressurized piping:
  - Maintain records of the last 3 annual interstitial monitoring sensor testing.
  - Maintain records of the last 3 annual ATG operability testing.
- Investigate, determine the reasons, and correct the causes for any alarms or failures and report all suspected releases within 72 hours.
**Reporting**

You are required to report to the Division when your release detection equipment or leak detection method indicates there may be a release. Any failed leak test, unexplained alarm or unusual operating condition must be properly investigated and reported to the Division within 72 hours of discovery. An example of an unusual operating condition is the erratic behavior of petroleum dispensing equipment, the sudden loss of petroleum from the UST system, an unexplained presence of water in the tank, or liquid in the interstitial space of secondary contained systems. However, if the system equipment is found to be defective but not leaking, is immediately repaired or replaced and additional monitoring within thirty (30) days does not confirm the initial result, reporting would not be required.

**Why this is important:**

Timely reporting of releases is important to ensure that you may receive fund reimbursement in the event of a release. An Application for Fund Eligibility must be submitted to the Division within ninety (90) days of a suspected release or within sixty (60) days of a confirmed release. In addition, the Division will perform an operational compliance inspection to determine compliance status at the time of release. You will be required to submit records demonstrating operational compliance. Failure to provide these records to the Division by the required due date may result in a higher fund deductible. Reporting and responding to releases quickly reduces overall cleanup costs, environmental damage, and can help protect the value of your property.
Chapter 5  Corrosion Protection

Tanks and piping that are in contact with the ground and/or water must be protected from corrosion or “rust”. This also includes metal components (for example, flex connectors, valves, elbows, and unions under the dispensers or at the top of the tank) that are in contact with the ground or water. Some types of underground tanks, such as tanks coated with non-metallic substances such as fiberglass or an epoxy, do not need additional corrosion protection. Non-metallic piping does not require additional corrosion protection.

The two corrosion protection methods allowed for metallic tanks and piping are:

1. **Galvanic Systems**
   These cathodic protection systems use buried sacrificial anodes that are attached to underground tanks, piping or metal components to protect these items from rusting. Galvanic systems typically cannot be seen since the anodes are typically underground and there is no rectifier. For tanks, anodes can be installed at the factory (such as on the sti-P3® tank), or later in the field to provide additional cathodic protection. For piping and other underground metal piping components, anodes are typically installed in the field.

2. **Impressed Current Systems**
   These cathodic protection systems use a rectifier to provide current to the tank, piping, or other components to protect them from rusting. The rectifier is usually either inside or outside of a building next to the tanks. Electric power to the rectifier must be on continuously. Impressed current cathodic protection systems are always added some time after tank or piping installation.

**Note:** Internal tank lining with a cathodic protection system may be either galvanic systems or impressed current cathodic protection systems. Internally lined tanks with no external corrosion protection must be permanently closed.

Steel flex connectors (or other metal piping sections) must be protected from corrosion by one of the following:

- Isolate the flex connector from contact with the ground and/or water by:
  - Installing a protective boot on the flex connector, or
  - Removing soil and/or water in contact with the flex connector, or
- Add cathodic protection (such as a galvanic or impressed current cathodic protection system) to the flex connector. If this option is used, periodic testing is required.

For complete information on testing, please refer to Division's Standardized Inspection Manual, Technical Chapter 4.1 Corrosion Protection.
Requirements:

- Cathodic protection systems must be operated and maintained in accordance with a corrosion expert's design.
- Test the cathodic protection system within 6 months of installation or repair, and every 3 years thereafter.
- If anodes are added or replaced (unless added to a flex connector), a tightness test must be performed 3 to 6 months of performing this work.
- If you have a rectifier, it must be inspected every 60 days to ensure that it is on and working properly. If rectifier output (amperage or voltage) has changed by more than 20% since the date of the last corrosion test, you should contact a corrosion professional to determine whether the tank system is adequately protected from corrosion.
- Steel tanks and/or piping that do not have corrosion protection must be permanently closed in accordance with Division guidelines.
- If an impressed current cathodic protection system has been turned off or inoperable more than 12 months, Division approval is required prior to placing the UST system back into service.
- Internally lined tanks with no additional corrosion protection must be permanently closed in accordance with Division guidelines.

Record Keeping:

- Maintain the results of the last 2 cathodic protection tests.
- Maintain the results of any tightness test performed following the addition or replacement of anodes.
- If the site has an impressed current cathodic protection system:
  - Record the results of the 60-day rectifier inspection on the Monthly/Annual Facility Walkthrough Inspection Form (CN-2544).
  - Maintain the results of the last three 60-day rectifier inspections.
Chapter 6  Spill Prevention Equipment

Any tank filled with 25 gallons or more at one time must have spill prevention equipment. Spill prevention equipment must contain spills that may occur when the delivery hose is disconnected from the fill pipe. Spill prevention equipment is often called “spill buckets” or “catchment basins”. They are not designed to hold product for long periods of time. Spill buckets often have a shorter “life-span” than tanks or piping.

NOTE: Some spill buckets have drain valves to allow product to drain into the tank. When spill bucket contents are drained into a tank, any collected water or debris may also enter the tank. The drain valves can be easily damaged over time compromising the integrity of the spill bucket.

Requirements:

Monthly:
- Visually check spill prevention equipment for damage.
- Remove liquid or debris from spill prevention equipment and properly dispose.
- Check for and remove obstructions in the fill pipe.
- Check the fill cap to make sure it is securely attached to the fill pipe and not in contact with the spill bucket lid.
- For double walled spill prevention equipment with interstitial monitoring, check for a leak in the interstitial area.
- For tanks receiving deliveries at intervals greater than 30-days the above items can either be checked monthly or prior to each delivery.

Every 3-Years:
- Conduct spill prevention equipment integrity testing.

Repair and Replacement
- If the integrity of a spill bucket fails or is visibly damaged, you may:
  - Replace the spill bucket
  - Repair the spill bucket only in accordance with manufacturer’s recommendations
  - Conduct integrity testing of spill bucket by following Division guidance or Petroleum Equipment Institute (PEI) - RP1200.
    o Integrity test failure would require repair or replacement.
- An integrity test must be conducted within 30-days of repair or replacement.
- If contamination is found, report as a suspected release within 72-hours.
Record Keeping:

- Monthly spill prevention device/spill bucket walkthrough inspections recorded on the Division's Facility Monthly/Annual Inspection Walkthrough Form (CN-2544) – ONE YEAR.
- 3-year spill prevention device integrity test – THREE YEARS
  - If hydrostatic testing use the Division’s CN-1366 form.
- Double-wall spill prevention equipment monthly monitoring results – Records must be maintained as long as this monthly monitoring method is in use.
- All repair and replacement records along with post integrity test results – THREE YEARS
Chapter 7 Overfill Prevention Equipment

Any tank that is filled with 25 gallons or more at one time must have overfill prevention equipment. Overfill prevention devices are installed in USTs to help prevent product releases to the environment during product deliveries.

As long as the UST system is used to store petroleum, owners and/or operators must ensure that releases due to spilling or overfilling do not occur. The owner and/or operator must ensure that the volume available in the tank is greater than the volume of petroleum to be transferred to the tank before the transfer is made and that the transfer operation is monitored constantly to prevent overfilling and spilling.

Overfill prevention equipment is designed to either:

1. Stop product flow (automatic shutoff device or flapper valve), or
2. Reduce product flow (flow restriction device or ball float valve), or
3. Alert delivery personnel before the tank becomes full (high level audible/visible alarm)

AUTOMATIC SHUTOFF DEVICES
Automatic shutoff devices, sometimes called flappers or flapper valves, are an integral part of the drop tube assembly installed within the tank fill riser. They are designed to initially restrict and subsequently completely shut off flow of product during deliveries when the product level has reached predetermined levels during a delivery. Automatic shutoff valves need to be properly positioned and operate freely to control flow and prevent tank overfills.

All Automatic Shutoff overfill devices must ‘shut off’ the fuel delivery at 95%. Each manufacturer may have a different ‘restriction’ setting depending on the design of the equipment. This initial restriction level activates first to substantially limit the flow of product prior to the actual shut off setting at 95%. This allows for some of the remaining product in the delivery hose to be drained into the tank prior to the tank reaching 95% volume and shut off activation occurs.

FLOW RESTRICTION DEVICES
Flow restriction devices, sometimes called a ball float valve are located inside the tank in the vent piping. As the tank fills, a ball in the valve rises and restricts the flow of vapors out of the tank. The flow rate decreases and alerts the delivery person to stop the delivery. These devices must restrict flow when the tank is 90% full. Ball float valves are not easily seen. Facility records may indicate whether a tank has this device, or the contractor who installed the tanks may know if they are present Ball float valves may not be used in all tank applications.

Ball float valves may not be used for overfill prevention:

- With suction piping systems
- With pressurized deliveries
- On tanks with remote fills
- On emergency generator tanks with suction systems
- On tanks with coaxial Stage I vapor recovery unless the appropriate delivery fittings are installed.
HIGH LEVEL AUDIBLE/VISIBLE ALARM

High level audible/visible alarms, sometimes called overfill alarms, provide an audible and/or visible warning to the fuel delivery driver if the product level in the UST reaches the 90% level during a delivery. They are often an integral part of the automatic tank gauge (ATG) system. An overfill alarm does not stop or restrict product flow.

An outdoor device must also be located near the fuel delivery location, either at the tank or remote fill location, to alert the transfer operator by visual and/or audible methods when the tank volume has reached the programmed 90% level.

Requirements & Record Keeping:

- Conduct an overfill prevention equipment operability test every THREE YEARS
- Maintain overfill prevention equipment operability test records (CN-2584) for THREE YEARS
- Maintain repair and replacement records along with post operability test results for THREE YEARS
- **Ball Float valves cannot be installed, repaired, or replaced. Another type of overfill prevention device must be installed.**
Chapter 8  Motor Fuel Dispensers

All new motor fuel dispensers are required to have under dispenser containment (UDC). UDC helps contain leaks. UDC is required to be liquid tight, product compatible, and accessible for visual inspection. When replacing a dispenser and connecting equipment (below the impact/shear valve in pressurized systems or union check valve in suction systems), UDC is required.

Regardless of the presence of UDC, all dispensers must be inspected quarterly for any drips or seeps from the filter or piping beneath the dispenser to ensure no leaks have occurred. These inspections are important to effectively address any releases that may be occurring in the dispenser area that are not monitored by release detection equipment. These quarterly inspections must be recorded on the Division's Monthly / Annual Facility Walkthrough Inspection Form (CN-2544).

Please note that other agencies, including the Department of Agriculture, and local or state air pollution authorities have regulatory requirements for dispenser operation. If you need assistance, please contact Small Business Assistance at (615) 532-8013 or 1-800-734-3619 or by email BGSPEAP@tn.gov.

https://www.tn.gov/environment/program-areas/sbeap-small-business-environmental-assistance.html
Chapter 9  Operation and Maintenance Walkthrough Inspections

To properly operate and maintain UST systems owners and/or operators must conduct periodic walkthrough inspections. These inspections are designed to help maintain operational record keeping, equipment compliance, and prevent petroleum releases. These inspections can be documented on the Division's Monthly/Annual Facility Walkthrough Inspection Form (CN-2544). There are two time periods of inspections required: monthly and annually.

Requirements:

**Monthly:**

Spill prevention equipment:

- Visually check for damage.
- Remove liquid or debris and properly dispose.
- Check for and remove obstructions in the fill pipe.
- Check the fill cap to make sure it is securely attached to the fill pipe and not in contact with the spill bucket lid.
- For double walled spill prevention equipment with interstitial monitoring, check for a leak in the interstitial area.
- For tanks receiving deliveries at intervals greater than 30-days the above items can either be checked monthly or prior to each delivery.

Release detection equipment:

- Check to make sure the release detection equipment is operating with no alarms or other unusual operating conditions present; and
- Ensure records of release detection testing are reviewed and current.

**ANNUALLY:**

Containment sumps:

- Visually check for damage, leaks to the containment area, or releases to the environment.
- Remove liquid (in contained sumps) or debris.
- For double walled sumps with interstitial monitoring, check for a leak in the interstitial area.

Handheld release detection equipment:

- Check devices such as tank gauge sticks or groundwater bailers for operability and serviceability.

**Record Keeping:**

Monthly/Annual Facility Walkthrough Inspection Forms must be maintained for 1-year

- Records must include:
A list of each area checked,
- Whether each area checked was acceptable or needed action taken,
- A description of actions taken to correct an issue, and
- Delivery records if spill prevention equipment is checked less frequently than every 30 days due to infrequent deliveries.

Chapter 10  Temporarily Out of Service

When a tank is in operation, it is registered as Currently In Use (CIU). However, there are times when it may be necessary to take the tanks out of service for a short or extended period of time (i.e., construction activities, change of ownership, weather related impacts, seasonal use, etc.). This is considered a change in status from CIU to Temporarily Out of Service (TOS). The Division must be notified of any change in status of tanks at a petroleum UST facility. A more detailed description of the requirements is available in the Division’s Standardized Inspection Manual, Technical Section 2.4 Out of Service UST System.

TOS Requirements:

- Submit an amended Notification Form CN-1260 within 30 days of a change in status.
- Cathodic protection systems must remain operational and continue to be monitored and tested.
- If the temporary out of service period is longer than three months, all other lines, pumps, manways, and ancillary equipment must be closed by capping and securing them.
- Vent lines must remain open.
- Release detection must be performed if the tank contains more than one inch of residue.
- Spill and overfill equipment must be installed.
- Three-year spill and overfill device testing is required if the tank contains more than one inch of residue

**NOTE:** It is a good idea to empty the tank to no more than one inch of residue because release detection and the three-year spill and overfill equipment testing are not required.

To Place TOS Tanks Back to CIU:

- Submit an amended Notification Form CN-1260 within 30 days of a change of status.
- Ensure all applicable testing and monitoring are complete and current
- All operational compliance requirements apply

Treat any releases from a temporarily closed system just as you would from a system that is in use.
Chapter 11  UST System Closure

If you plan to close your tank(s) and/or piping, complete an Application for Permanent Closure of Underground Storage Tanks (CN-0928) and submit it to the applicable field office for evaluation and approval. Once the application is approved you have one year to complete the closure in accordance with the Division's requirements. Once the closure is complete, you must submit a Permanent Closure Report (CN-0927) including the Division's Notification Form (CN-1260). For additional information, please access this link:

https://www.tn.gov/environment/program-areas/ust-underground-storage-tanks/closure.html .
Chapter 12  Repairs and Replacement

Periodically it may be necessary to make repairs to UST systems or replace equipment. The following describes minimum repair, replacement, testing, and record keeping requirements.

REPAIRS:

Repairs to tanks and piping must be performed in accordance with the following:

- Steel tanks must be internally assessed for structural integrity according to nationally recognized practice such as American Petroleum Institute (API) RP 1631, National Leak Prevention Association (NLPA) 631, or Steel Tank Institute (STI) SP 131.
- For fiberglass tanks and piping:
  - Repairs to fiberglass tanks may be made by the manufacturer's representative or according to manufacturer's specifications.
  - Fiberglass piping and fittings may be repaired according to manufacturer's specifications.
- Spill bucket repairs may only be made if allowed by the manufacturer.
- Containment sump repairs may only be made under nationally recognized practices such as NLPA KWA Standard 823.
- Components used to repair any UST system component must be compatible with the substance stored. See Underwriter Laboratories (UL) Fuel Compatibility Tool to determine component compatibility.

REPLACEMENT:

- Metal pipe sections and fittings that have failed due to corrosion must be replaced.
- If impressed current cathodic protection has been turned off or inoperable more 12-months, Division approval is required prior to placing the UST system back into service.
- All piping replacements shall have secondary containment with interstitial monitoring.
- When replacing a dispenser, if any of the connecting equipment must be replaced then under dispenser containment (UDC) with interstitial monitoring must be installed.

TESTING, RECORD KEEPING, AND REPORTING

- The repaired portion is monitored monthly for releases or tightness tested within 30-days of the repair or replacement.
- Integrity testing is required for secondary containment within 30-days of the repair.
- Ensure qualified contractors familiar with UST systems and equipment are used.
- Repairs to UST systems must be made to prevent releases for the life of the UST system.
- Records of all repairs must be kept for the remaining operating life of the UST system.
- Notify the Division within 24-hours of any tank or piping repairs or replacement.

The Division must pre-authorize all piping repairs. Requests for Division authorization of piping repairs must be submitted in writing and approved prior to conducting work.
Chapter 13  Blended Fuels

Prior to placing an UST system designed to store ethanol blended fuels greater than 10% ethanol or a blend of greater than 20% of biodiesel into service, tank owners must complete and submit an Equipment Compatibility Checklist (CN-1285) and a Statement of Compatibility (CN-1283) indicating the UST system components will be compatible with the product stored.

Ethanol blended fuels are designated by the amount of ethanol the fuel contains. A fuel labeled as E-85 contains 85% ethyl alcohol and 15% gasoline. E-10 contains only 10% ethyl alcohol and 90% gasoline. Biodiesel blends are designated by the amount of biodiesel the fuel contains. A fuel labeled as B-20 contains 20% biodiesel and 80% diesel. With all the interest in alternative fuels, it is important to remember that not all components of most UST systems designed to contain and dispense petroleum products, may be compatible with alternative fuels.

The Division is charged with the safe storage of petroleum products (T.C.A. § 68-215-102), which includes blended fuels, under the regulatory definition of petroleum. UST systems which store blended fuels are subject to all UST requirements. The Division is concerned about the compatibility of blended fuels with UST system components designed to store much higher percentages of petroleum. UST system components can be adversely impacted by interaction with blended fuels.

Dispenser Options

Dispensers are a critical component of the UST fuel system. Dispenser manufacturers sell dispensers that they certify to be fully compatible with blended fuels. This is the option the Division recommends for use with blended fuels.

If a tank owner wishes to use an existing dispenser with blended fuels, the installer must certify that all the listed dispenser components in Section 2 of the Ethanol Equipment Compatibility Checklist (CN-1285) are certified by the manufacturer or UL Marked as compatible for blended fuel, by completing the checklist. If all the components are marked “Yes” then the dispenser is considered compatible with blended fuels.

If any of the listed components cannot be verified as either UL Marked or certified by the manufacturer as compatible, then the dispenser is not considered compatible with e-blended fuels. Dispensers that are not certified by the manufacturer or UL Marked as compatible for E-blend fuel must be inspected daily for leaks or equipment failure by using the Dispenser Daily Inspection Form (CN-1284). One form must be used for each dispenser or MPD (multi-product dispenser) connected to a blended fuel tank. These records must be retained on site for a period of one year.

For more about Alternative Fuels, you can visit the EPA website: [https://www.epa.gov/ust/emerging-fuels-and-underground-storage-tanks-usts#tab-1](https://www.epa.gov/ust/emerging-fuels-and-underground-storage-tanks-usts#tab-1).
Chapter 14  Other Related Regulatory Programs

Gasoline Dispensing Facilities (GDFs) are primarily affected by environmental rules from Air Pollution Control (APC) and Underground Storage Tanks (UST). Depending on particular work done at your facility, certain Division of Water Resources (DWR) or Division of Remediation (Remediation) permits and requirements may also affect your facility. APC rules cover best management practices and Stage I Vapor Controls. UST rules cover installation through removal of underground storage tanks. This includes types of tests and records necessary for the life of the tank. DWR permits would usually be necessary for construction or activities that affect water in some way. Remediation is very closely tied to UST and DWR in the event there is a cleanup necessary.

Additional information is available from the TDEC Small Business Environmental Assistance Program at https://www.tn.gov/content/tn/environment/program-areas/sbeap-small-business-environmental-assistance/permit-by-rule.html. If the facility is located in Davidson, Hamilton, Knox, or Shelby Counties, please contact the local air pollution control program for that county for air permitting requirements.

The following are additional programs that may need to be contacted for specific requirements:

- Tennessee Department of Agriculture
  Consumer & Industry Services Division (Weight & Measures Section)

- Tennessee Department of Revenue

- Local Fire Department, codes, or other municipal agencies