



Tank Operator Reference Guide

April 12, 2022

Division of Underground Storage Tanks

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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>.

Fillable Forms

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

FORM DESCRIPTION	NUMBER
Buyers Notification	CN-1392
Change of Owner Mailing Address	CN-1383
Notification for Underground Storage Tanks	CN-1260
Notification of Indicia of Ownership	CN-1186
Pre-Installation Notification Form	CN-1288
Seller Reporting Change of Ownership	CN-0911

Operational Compliance

FORM DESCRIPTION	NUMBER
Annual Automatic Tank Gauge Operability Test Report	CN-2624
Annual Electronic Interstitial Monitoring Report	CN-1339
Containment Sump Integrity Hydrostatic Test Report	CN-2664
Daily Record of Visual Inspection for Incompatible Dispenser Components	CN-1284
Equipment Compatibility Checklist	CN-1285
Galvanic Cathodic Protection Testing Survey	CN-1140
Impressed Current Cathodic Protection Rectifier Reading Form	CN-1282
Impressed Current Cathodic Protection Testing Survey	CN-1309
Low Level Hydrostatic Sump Testing Form	CN-2644
Manual Tank Gauging Monthly Report	CN-1367
Monthly / Annual Facility Walkthrough Inspection Form	CN-2544
Monthly Electronic Interstitial Monitoring Report	CN-1340
Monthly Spill Bucket Inspection Log	CN-1286
Overfill Prevention Operability Test	CN-2584
Precision Line Tightness and Leak Detector Test	CN-1341
Quarterly Dispenser Inspection Log	CN-1287
Spill Prevention Device Hydrostatic Test Report	CN-1366
Statement of Compatibility	CN-1283
Tank Tightness Test Report	CN-1601

Use the map on the following page to contact the nearest field office for your facility.

Environmental Field Offices

<https://www.tn.gov/environment/contacts/about-field-offices>

Have a question about
Tennessee's Environment?
Call 1-888-891-TDEC (8332)
ask.tdec@tn.gov

Nashville

711 R.S. Gass Boulevard
Nashville, Tennessee 37216

Phone: (615) 761-7590

[Rhonda Key](#)

Field Office Manager

Cookeville

1221 South Willow Avenue
Cookeville, Tennessee 38506

Phone: (931) 337-4172

[Frank Pointer](#)

Field Office Manager

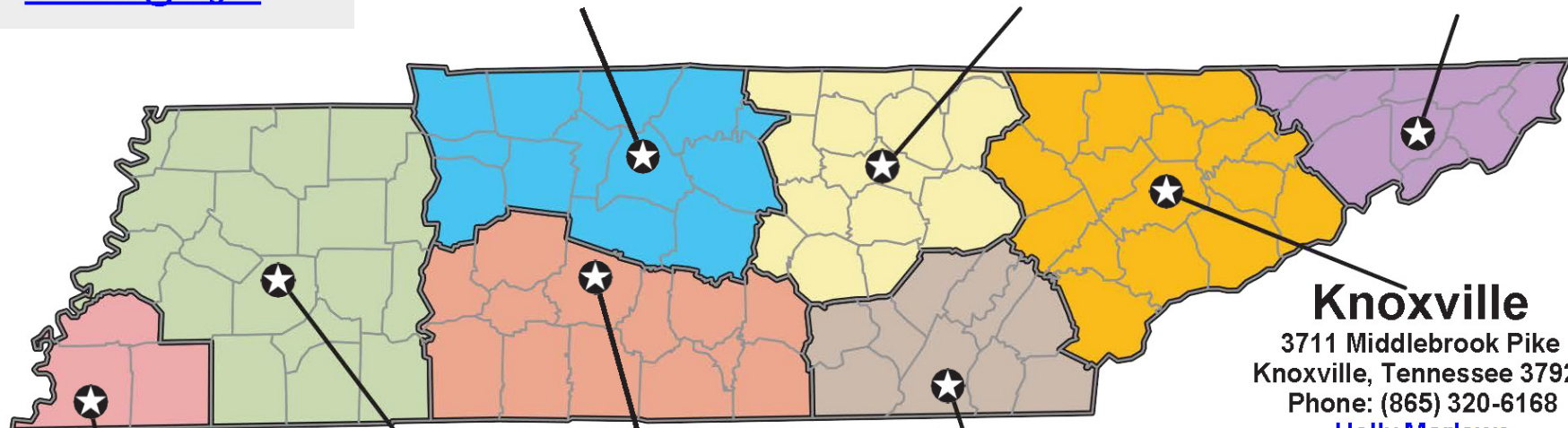
Johnson City

2305 Silverdale Road
Johnson City, Tennessee 37601

Phone: (423) 438-9100

[Kevin Rice](#)

Field Office Manager



Jackson

1625 Hollywood Drive
Jackson, Tennessee 38305

Phone: (731) 431-2924

[Ronda Johnson](#)

Field Office Manager

Chattanooga

1301 Riverfront Parkway, Suite #206
Chattanooga, Tennessee 37402

Phone: (931) 337-4172

[Frank Pointer](#)

Field Office Manager

Knoxville

3711 Middlebrook Pike
Knoxville, Tennessee 37921

Phone: (865) 320-6168

[Holly Marlowe](#)

Field Office Manager

Memphis

8383 Wolf Lake Drive
Bartlett, Tennessee 38133

Phone: (901) 232-5968

[Roshanda Forsythe](#)

Field Office Manager

Columbia

1421 Hampshire Pike
Columbia, Tennessee 38401

Phone: (931) 306-8712

[Dale Robinson](#)

Field Office Manager



Department of
**Environment &
Conservation**

Stan Boyd, Director
Division of Underground Storage Tanks

(615) 532-0945

Stan.Boyd@tn.gov

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 .



Red Tag Example

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.

	Class A Operator	Class B Operator	Class C Operator
Who fits this class of operator?	The individual who generally focuses on the statutory and regulatory requirements related to operating and maintaining the UST system	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	The individual who is generally the first line of response to events indicating emergency conditions or responding to alarms

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.

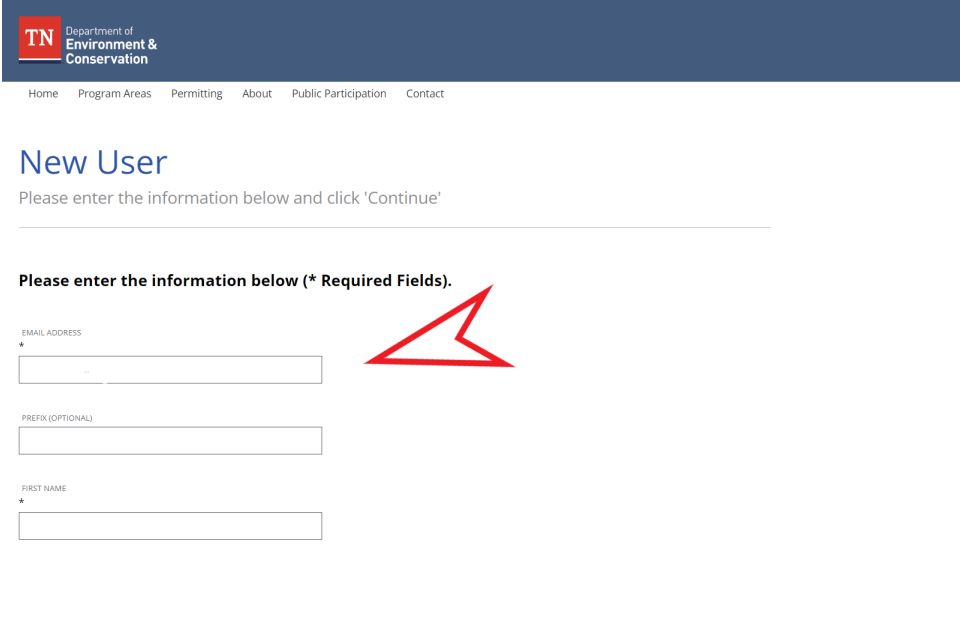

Tennessee Tank Helper

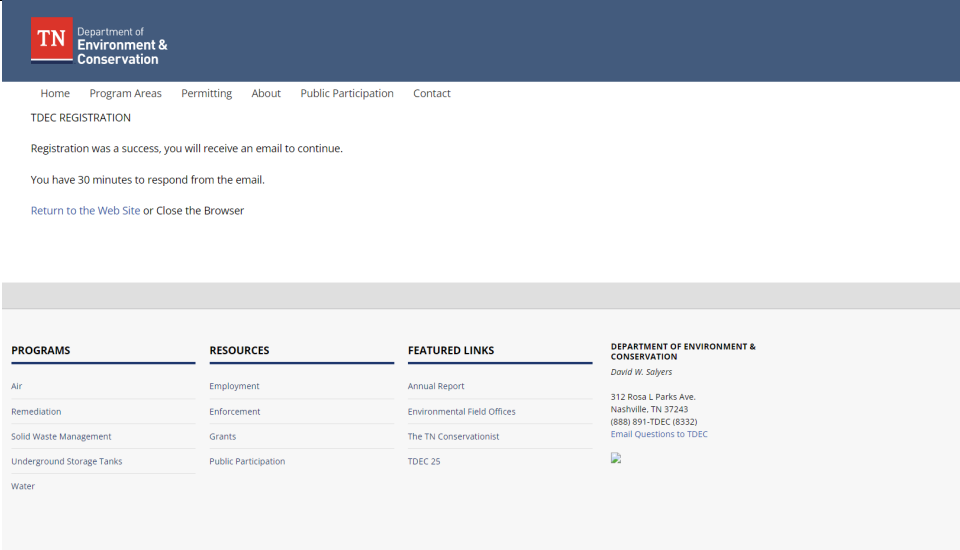

<https://tdec.tn.gov/tankhelper>

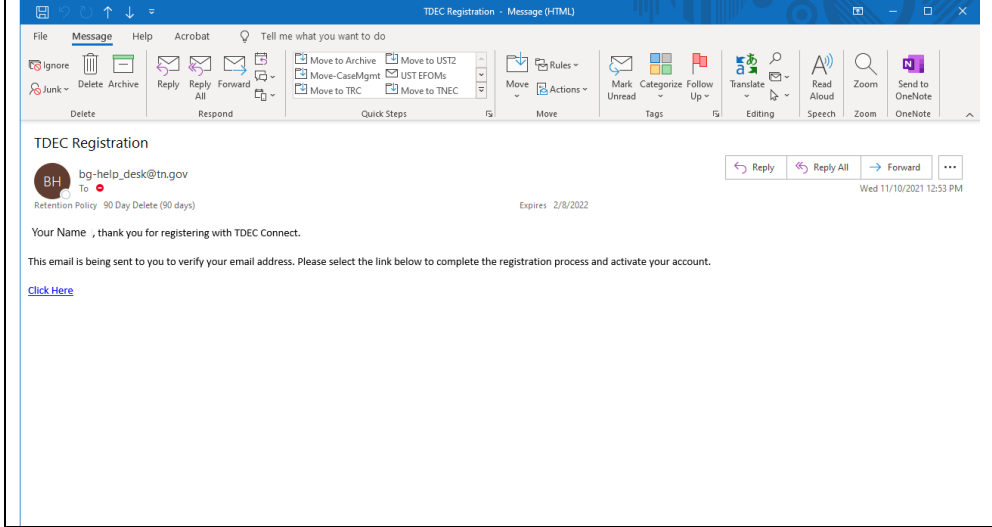
Creating a New Account

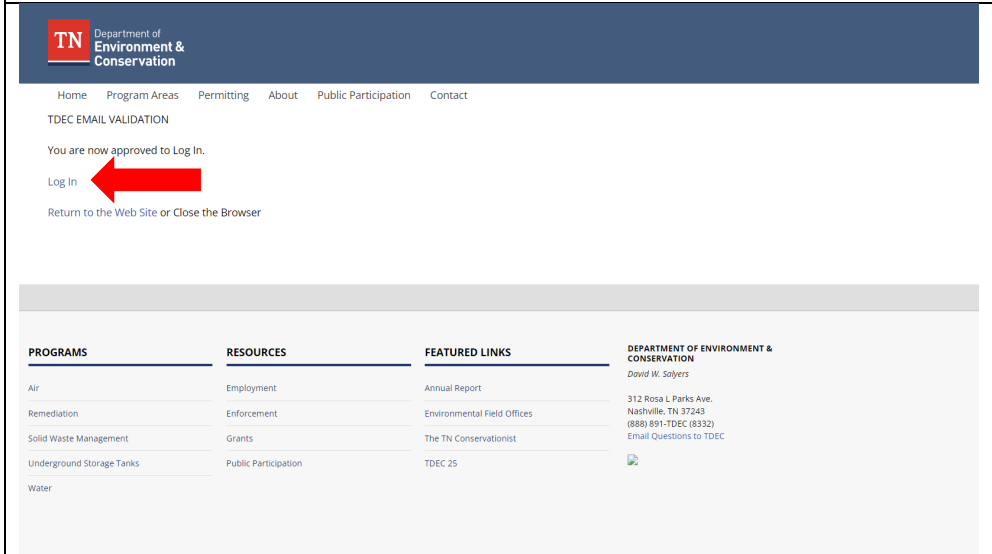
CREATING A NEW ACCOUNT	
	<p>To create a new account, click on Register.</p>

REGISTRATION	
	<p>Enter email address twice and select the CONTINUE button.</p>

REGISTRATION (cont'd)	
 <p>REGISTRATION (cont'd)</p> <p>  Home Program Areas Permitting About Public Participation Contact </p> <h2>New User</h2> <p>Please enter the information below and click 'Continue'</p> <hr/> <p>Please enter the information below (* Required Fields).</p> <p>EMAIL ADDRESS *</p> <input type="text"/> <p>PREFIX (OPTIONAL)</p> <input type="text"/> <p>FIRST NAME *</p> <input type="text"/>	<p>Complete the new user information to create an account.</p> <p>Make note of login information with password for later use.</p> <p>To receive notification via text message, enter cell phone number along with the carrier's information.</p> <p>Click CONTINUE.</p>

REGISTRATION SUCCESSFUL									
 <p>REGISTRATION SUCCESSFUL</p> <p>  Home Program Areas Permitting About Public Participation Contact </p> <p>TDEC REGISTRATION</p> <p>Registration was a success, you will receive an email to continue.</p> <p>You have 30 minutes to respond from the email.</p> <p>Return to the Web Site or Close the Browser</p> <hr/> <table border="0"> <tr> <td>PROGRAMS</td> <td>RESOURCES</td> <td>FEATURED LINKS</td> <td>DEPARTMENT OF ENVIRONMENT & CONSERVATION</td> </tr> <tr> <td> <ul style="list-style-type: none"> Air Remediation Solid Waste Management Underground Storage Tanks Water </td> <td> <ul style="list-style-type: none"> Employment Enforcement Grants Public Participation </td> <td> <ul style="list-style-type: none"> Annual Report Environmental Field Offices The TN Conservasionist TDEC 25 </td> <td> <i>David W. Salyers</i> 312 Rosa L. Parks Ave. Nashville, TN 37243 (888) 891-TDEC (8332) Email Questions to TDEC </td> </tr> </table>	PROGRAMS	RESOURCES	FEATURED LINKS	DEPARTMENT OF ENVIRONMENT & CONSERVATION	<ul style="list-style-type: none"> Air Remediation Solid Waste Management Underground Storage Tanks Water 	<ul style="list-style-type: none"> Employment Enforcement Grants Public Participation 	<ul style="list-style-type: none"> Annual Report Environmental Field Offices The TN Conservasionist TDEC 25 	<i>David W. Salyers</i> 312 Rosa L. Parks Ave. Nashville, TN 37243 (888) 891-TDEC (8332) Email Questions to TDEC	<p>An email will be sent containing a link that must be used in 30 minutes.</p> <p>Open the email and click the link to continue.</p>
PROGRAMS	RESOURCES	FEATURED LINKS	DEPARTMENT OF ENVIRONMENT & CONSERVATION						
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EMAIL VALIDATION	
	<p>This is the email with the link from bg-help_desk@tn.gov.</p> <p>Click on Click Here.</p> <p>Click on the link to verify your email.</p>

EMAIL VALIDATION (Cont'd)	
	<p>The email link navigates to the email validation screen.</p> <p>Click on Log In.</p>

APPLICATION LOGIN	
	<p>Login using the email address and password (the password entered when completing the user profile).</p> <p>Click Log In.</p>

APPLICATION LOGIN (cont'd)	
	<p>Choose phone or email option to receive a six-digit security code.</p> <p>If a phone number and carrier was previously entered, a six-digit code will be sent by text message.</p> <p>Otherwise, the six-digit code will be sent by email.</p> <p>Click CONTINUE.</p>

APPLICATION LOGIN (cont'd)

Department of Environment & Conservation

Home Program Areas Permitting About Public Participation Contact

A code has been sent to your phone. Please respond within 30 minutes.

Enter the code here:

[Continue](#)

PROGRAMS	RESOURCES	FEATURED LINKS	DEPARTMENT OF ENVIRONMENT & CONSERVATION
Air	Employment	Annual Report	David W. Salyers
Remediation	Enforcement	Environmental Field Offices	312 Rosa L Parks Ave.
Solid Waste Management	Grants	The TN Conservatorist	Nashville, TN 37243
Underground Storage Tanks	Public Participation	TDEC 25	(888) 891-TDEC (8332)
Water			Email Questions to TDEC

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

Click **CONTINUE**.

APPLICATION LOGIN SUCCESSFUL

Tennessee Tank Helper
Underground Storage Tank Operator Training

Profile: mark.braswell@tn.gov (Settings) Log Out

Operator Training

TENNESSEE UST OPERATOR TRAINING

Owners of facilities which have underground storage tanks are now required to have operators oversee and maintain the tanks. Operators will be required to take training for underground storage tanks. The application will allow owners to designate operators and allow operators to take online training. There are three categories of operators: A, B, and C. Owners will be required to state the designated operators for all of the owner's facilities. The designated operators using the application for training will be required to take the modules which are required for the facility that they are designated for.

Login

You are already logged in

[Go to Dashboard](#)

Class Operators - Some Things You Should Know

- The online UST Operator Training is in English only
- A module must be completed in its entirety before you can be scored on that module. Otherwise, answers to questions will not be saved.
- Class Operators must create a profile in the UST Operator Training system.
- Find out what type of Class Operator you are.
- If you do not have tanks in Tennessee and are taking training for another state you will need to sign in as an operator, even if you are an owner.

Facility Owners - Some Things You Should Know

- Class Operator designations must come from a search of available operators, unless as an Owner you will be the Designated Operator. If your search does not return the name of the operator you were searching for, you may either exit the system or conduct another search. Failed results indicate that the operator has not entered his profile into the system.
- If you are an owner and also want to designate yourself as a Class Operator, only one log in account is necessary. To log in as either an Owner or a designated owner/operator use the Facility Owners log in area above.
- List of Tennessee Division of Underground Storage Tanks Field Offices.

Click on the **GO TO DASHBOARD** button to complete the user profile.

USER PROFILE - STEP 1

Tennessee Tank Helper
Underground Storage Tank Operator Training

Profile: mark.braswell@tn.gov (Settings) Log Out

Step 1: Complete Your Profile
Step 2: Your Tank Location
Step 3: Choose Your Role (Owner or Operator)
Step 4: Review & Complete

Profile Information

First Name: Mark Last Name: Braswell

Company Name:

Phone1: Ext.:

Phone2: Ext.:

Address Line 1:

Address Line 2:

City/State/Zip: Zip Ext.:

[Continue](#)

A user profile must be completed for account setup.

(Company name and phone2 fields are not required.)

Complete Step 1

Click **CONTINUE**.

USER PROFILE - STEP 2

Tennessee Tank Helper
Underground Storage Tank Operator Training

Profile: mark.braswell@tn.gov (Settings) Log Out

Step 1: Complete Your Profile
Step 2: Your Tank Location
Step 3: Choose Your Role (Owner or Operator)
Step 4: Review & Complete

What State(s) are your tanks located in ?

Country:

State:

[Previous](#) [Continue](#)

Complete Step 2

Click **CONTINUE**.

USER PROFILE - STEP 3

Tennessee Tank Helper
Underground Storage Tank Operator Training

Profile: mark.braswell@tn.gov (Settings) Log Out

Step 1: Complete Your Profile | Step 2: Your Tank Location | **Step 3: Choose Your Role (Owner or Operator)** | Step 4: Review & Complete

Choose Your Role (Owner or Operator)

Owner [Training can be added to this account.]
I am:
The Owner or Person authorized by the Owner to designate Operators

I know the Owner ID: [How to find Owner ID?](#)

Operator
I am:
Going to take A, B, or C training
Going to be designated for at least 1 facility

[Previous](#) [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**.

USER PROFILE - STEP 4

Tennessee Tank Helper
Underground Storage Tank Operator Training

Profile: mark.braswell@tn.gov (Settings) Log Out

Step 1: Complete Your Profile | Step 2: Your Tank Location | Step 3: Choose Your Role (Owner or Operator) | **Step 4: Review & Complete**

Profile Information
Name: Mark Braswell
Phone1: (423) 621-0062
Phone2: (423) 741-0199
Address: 2305 Silverdale Dr
City / State / Zip: Johnson City TN 37659

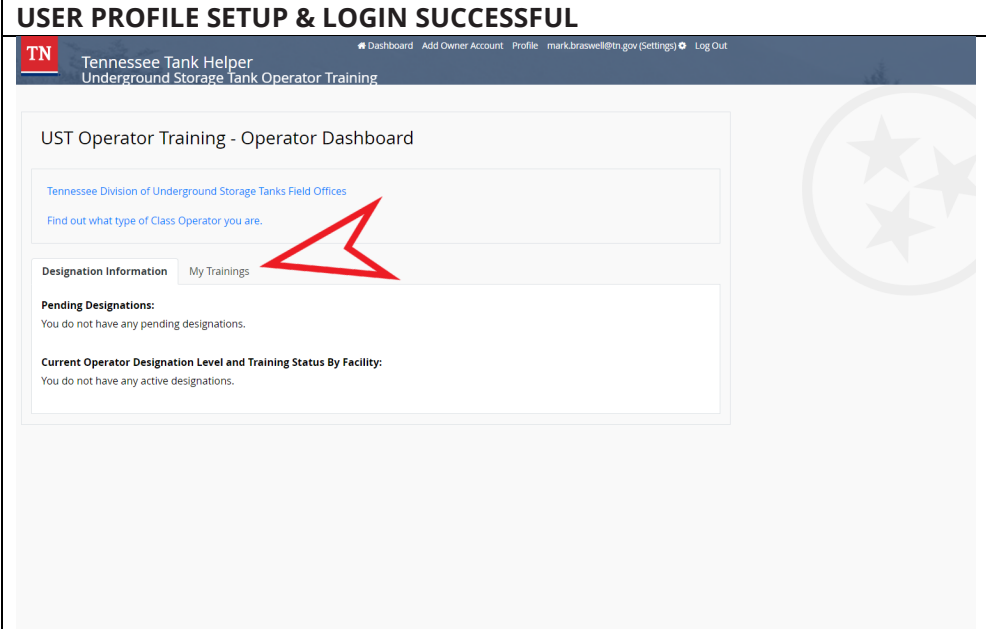
Tank Locations
Country: US
States: TN

Your Role
OPERATOR

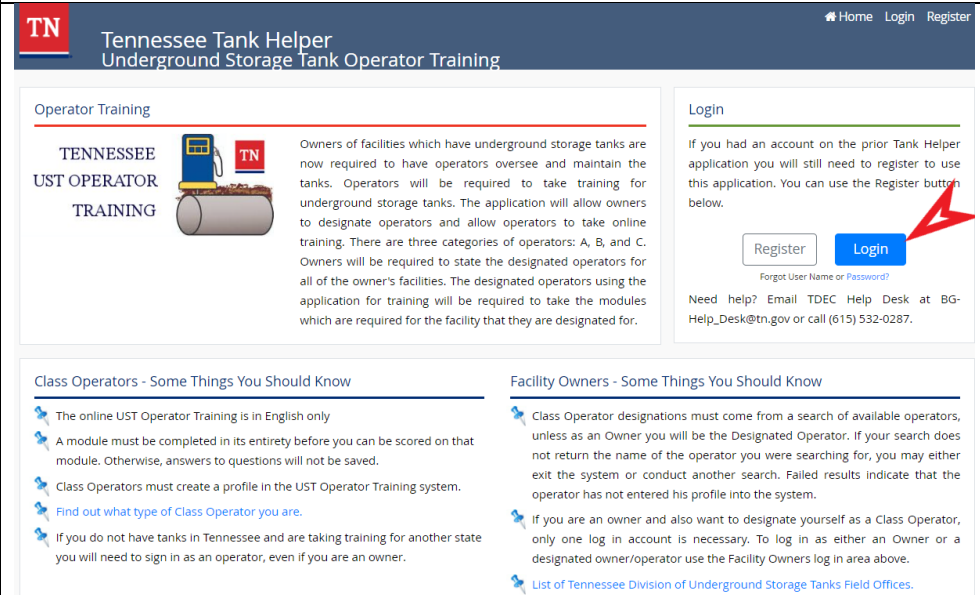
[Previous](#) [Submit](#)

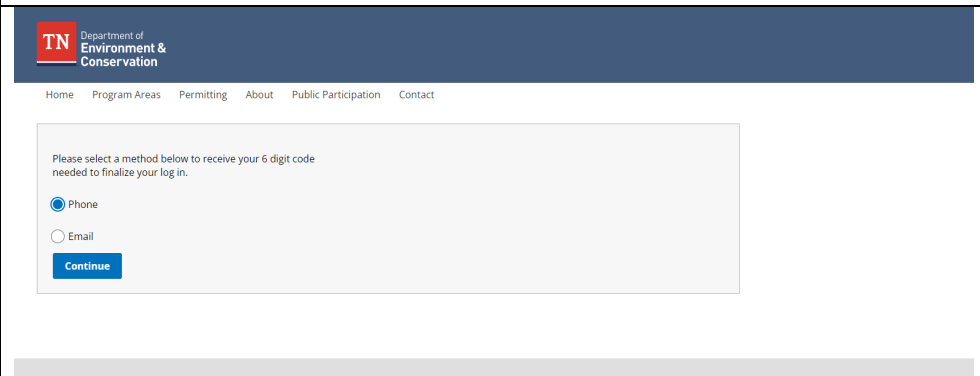
Complete Step 4

Click **SUBMIT**.

USER PROFILE SETUP & LOGIN SUCCESSFUL	
	<p>This is the DASHBOARD for operator training AND operator designations.</p>

Existing Account Login

LOGIN	
 <p>LOGIN</p> <p>Tennessee Tank Helper Underground Storage Tank Operator Training</p> <p>Operator Training</p> <p>TENNESSEE UST OPERATOR TRAINING</p> <p>Owners of facilities which have underground storage tanks are now required to have operators oversee and maintain the tanks. Operators will be required to take training for underground storage tanks. The application will allow owners to designate operators and allow operators to take online training. There are three categories of operators: A, B, and C. Owners will be required to state the designated operators for all of the owner's facilities. The designated operators using the application for training will be required to take the modules which are required for the facility that they are designated for.</p> <p>Login</p> <p>If you had an account on the prior Tank Helper application you will still need to register to use this application. You can use the Register button below.</p> <p>Register Login</p> <p>Forgot User Name or Password?</p> <p>Need help? Email TDEC Help Desk at BG-Help_Desk@tn.gov or call (615) 532-0287.</p> <p>Class Operators - Some Things You Should Know</p> <ul style="list-style-type: none"> The online UST Operator Training is in English only A module must be completed in its entirety before you can be scored on that module. Otherwise, answers to questions will not be saved. Class Operators must create a profile in the UST Operator Training system. Find out what type of Class Operator you are. If you do not have tanks in Tennessee and are taking training for another state you will need to sign in as an operator, even if you are an owner. <p>Facility Owners - Some Things You Should Know</p> <ul style="list-style-type: none"> Class Operator designations must come from a search of available operators, unless as an Owner you will be the Designated Operator. If your search does not return the name of the operator you were searching for, you may either exit the system or conduct another search. Failed results indicate that the operator has not entered his profile into the system. If you are an owner and also want to designate yourself as a Class Operator, only one log in account is necessary. To log in as either an Owner or a designated owner/operator use the Facility Owners log in area above. List of Tennessee Division of Underground Storage Tanks Field Offices. 	<p>To access your Tank Helper account, go to the website https://tdec.tn.gov/tankhelper and login using your email and password.</p>

EXISTING ACCOUNT LOGIN	
 <p>EXISTING ACCOUNT LOGIN</p> <p>TN Department of Environment & Conservation</p> <p>Home Program Areas Permitting About Public Participation Contact</p> <p>Please select a method below to receive your 6 digit code needed to finalize your log in.</p> <p><input checked="" type="radio"/> Phone</p> <p><input type="radio"/> Email</p> <p>Continue</p>	<p>To login, a six-digit code must be entered each time.</p> <p>The code is sent by text or email.</p>

Training Dashboard

TRAINING DASHBOARD

Tennessee Tank Helper
 Underground Storage Tank Operator Training

Dashboard Add Owner Account Profile mark.braswell@tn.gov/Settings Log Out

UST Operator Training - Operator Dashboard

Tennessee Division of Underground Storage Tanks Field Offices
 Find out what type of Class Operator you are.

Designation Information

My Trainings

Class Operator Required Training Modules:
 You do not have any required trainings at this time.
 The required training is based on what type of Class Operator has been selected and information from the Division's database. If you believe that an entire module or its sections below are required based on this data and it is incorrect you may want to have the owner or owner's authorized representative submit a new notification form before you begin training.

Class Operator Optional Training Modules:
 Displayed below are optional training modules. You are not required to view these modules to complete your training. You may select any module or module section listed. However, be advised that any optional training chosen will be scored the same as required training in questions answered correctly or incorrectly.

Designation Level	Module Name	Module Sections	Status	Select Training
A	Class A Operator General Training	<input type="checkbox"/> Entire Module (View Content)	Completed on 11/10/2021	ReTake Training (Print Cert)
B	Class B Operator General Training	<input type="checkbox"/> Entire Module	Incomplete	Start Training
B	Spill and Overfill Prevention	<input type="checkbox"/> Entire Module	Incomplete	Start Training

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.

TRAINING DASHBOARD (cont'd)

TN
Tennessee Tank Helper
Underground Storage Tank Operator Training
Dashboard Add Owner Account Profile mark.braswell@tn.gov (Settings) Log Out

UST Operator Training - Operator Dashboard

Tennessee Division of Underground Storage Tanks Field Offices

Find out what type of Class Operator you are.

Designation Information
My Trainings

Class Operator Required Training Modules:
 You do not have any required trainings at this time.
 The required training is based on what type of Class Operator has been selected and information from the Division's database. If you believe that an entire module or its sections below are required based on this data and it is incorrect you may want to have the owner or owner's authorized representative submit a new notification form before you begin training.

Class Operator Optional Training Modules:
 Displayed below are optional training modules. You are not required to view these modules to complete your training. You may select any module or module section listed. However, be advised that any optional training chosen will be scored the same as required training in questions answered correctly or incorrectly.

Designation Level	Module Name	Module Sections	Status	Select Training
A	Class A Operator General Training	<input checked="" type="checkbox"/> Entire Module (View Content)	Completed on 11/10/2021	ReTake Training (Print Cert 🖨)
B	Class B Operator General Training	<input checked="" type="checkbox"/> Entire Module	-	Start Training
B	Spill and Overfill Prevention	<input checked="" type="checkbox"/> Entire Module	-	Start Training
B	Tank and Piping Release Detection	<input type="checkbox"/> Suction Piping	-	Start Training
		<input type="checkbox"/> Manual Tank Gauging	-	
		<input type="checkbox"/> SIR	-	
		<input checked="" type="checkbox"/> Interstitial Monitoring, ATG and Pressurized Piping	-	
B	Corrosion and Cathodic Protection	<input type="checkbox"/> Entire Module	-	Start Training
B	Supplemental Module for New Rules	<input checked="" type="checkbox"/> Entire Module	-	Start Training
C	Class C Operator General Training	<input checked="" type="checkbox"/> Entire Module	-	Start Training

State Disclaimer:
 This is a plain English interpretation of the rules, not the rules themselves. If there appears to be a conflict between Tank Helper and Tennessee UST Rules, the rules take precedence. Tank Helper is designed to explain the rules for most UST systems in Tennessee. If you have a system that is highly unique and still have questions after you have taken the training you will want to contact your local field office for further assistance. Customized compliance assistance is based upon best available state records combined with operator knowledge.

 To be certified as an operator in any Class (A or B) all of the appropriate modules for that class must be completed. Tank Helper class certification does not guarantee transfer to other states. The State of Tennessee does not endorse any specific brands, manufacturers, or vendors of equipment, products or services. Any brand names mentioned or depicted of any equipment, products, or services in this presentation are used for illustrative purposes only and are neither endorsements nor recommendations for such equipment, products, or services and should not be construed as such.

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.

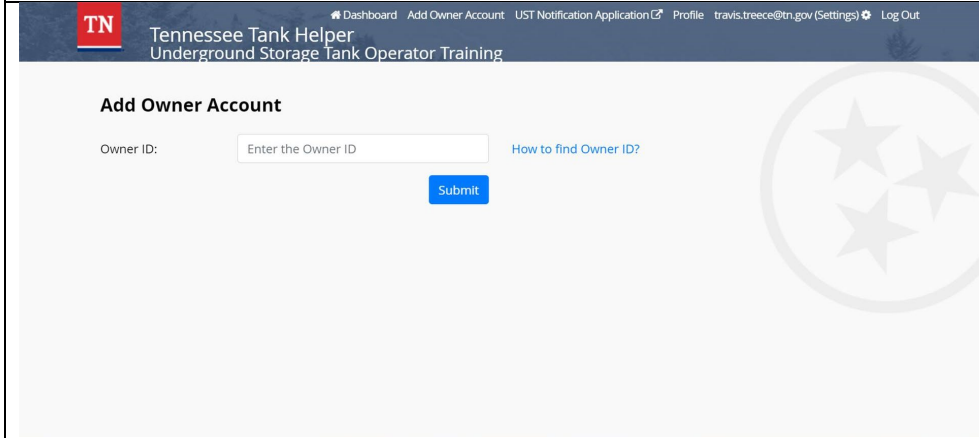
TRAINING - CLASS A OPERATOR EXAMPLE	
	<p>Each module will have a similar start page.</p>

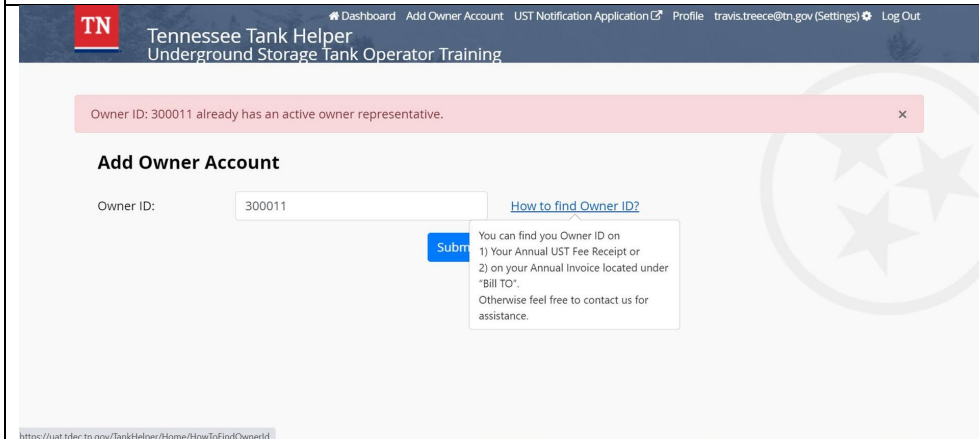
CERTIFICATE - CLASS A OPERATOR EXAMPLE	
	<p>Certificate can be printed from My Trainings Tab when all the modules are successfully completed (70% exam score or better).</p> <p>Note there is a separate certificate for Class A, B and C operator training.</p>

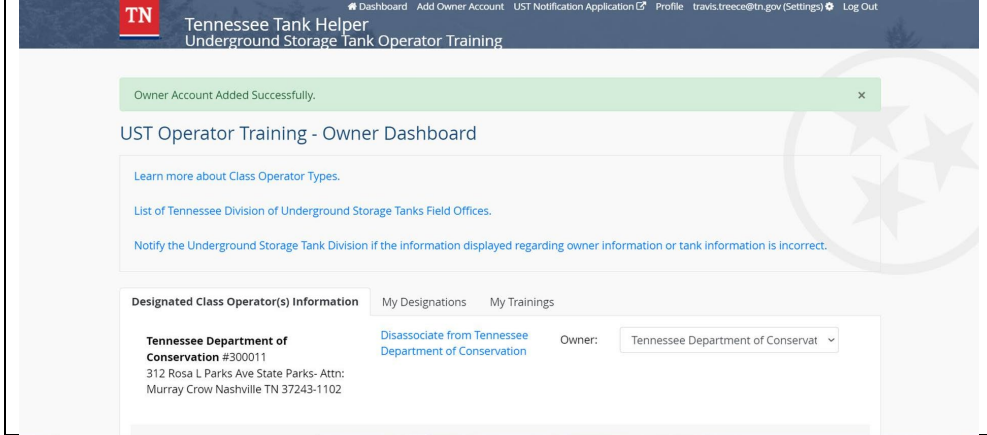
Operators: Adding Owner's Account

<div data-bbox="214 331 1193 949"> <p>LOGIN</p> <p>Tennessee Tank Helper Underground Storage Tank Operator Training</p> <p>Operator Training</p> <p>TENNESSEE UST OPERATOR TRAINING</p> <p>Owners of facilities which have underground storage tanks are now required to have operators oversee and maintain the tanks. Operators will be required to take training for underground storage tanks. The application will allow owners to designate operators and allow operators to take online training. There are three categories of operators: A, B, and C. Owners will be required to state the designated operators for all of the owner's facilities. The designated operators using the application for training will be required to take the modules which are required for the facility that they are designated for.</p> <p>Login</p> <p>If you had an account on the prior Tank Helper application you will still need to register to use this application. You can use the Register button below.</p> <p>Register Login</p> <p>Forgot User Name or Password?</p> <p>Need help? Email TDEC Help Desk at BG-Help_Desk@tn.gov or call (615) 532-0287.</p> <p>Class Operators - Some Things You Should Know</p> <ul style="list-style-type: none"> The online UST Operator Training is in English only A module must be completed in its entirety before you can be scored on that module. Otherwise, answers to questions will not be saved. Class Operators must create a profile in the UST Operator Training system. Find out what type of Class Operator you are. If you do not have tanks in Tennessee and are taking training for another state you will need to sign in as an operator, even if you are an owner. <p>Facility Owners - Some Things You Should Know</p> <ul style="list-style-type: none"> Class Operator designations must come from a search of available operators, unless as an Owner you will be the Designated Operator. If your search does not return the name of the operator you were searching for, you may either exit the system or conduct another search. Failed results indicate that the operator has not entered his profile into the system. If you are an owner and also want to designate yourself as a Class Operator, only one log in account is necessary. To log in as either an Owner or a designated owner/operator use the Facility Owners log in area above. List of Tennessee Division of Underground Storage Tanks Field Offices. </div>	<p>To access your Tank Helper account, go to the website https://tdec.tn.gov/tankhelper and login using your email and password.</p>
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<div data-bbox="214 1043 1193 1509"> <p>OPERATOR DASHBOARD</p> <p>Tennessee Tank Helper Underground Storage Tank Operator Training</p> <p>Dashboard Add Owner Account Profile miltzie.berry@tn.gov (Settings) Log Out</p> <p>UST Operator Training - Operator Dashboard</p> <p>Tennessee Division of Underground Storage Tanks Field Offices</p> <p>Find out what type of Class Operator you are.</p> <p>Designation Information My Trainings</p> <p>Pending Designations: You do not have any pending designations.</p> <p>Current Operator Designation Level and Training Status By Facility: You do not have any active designations.</p> </div>	<p>From blue banner at the top of the page, click "Add Owner Account".</p>
--	---

ADD OWNER ACCOUNT	
	<p>Enter your owner ID (not facility ID) and click SUBMIT.</p>

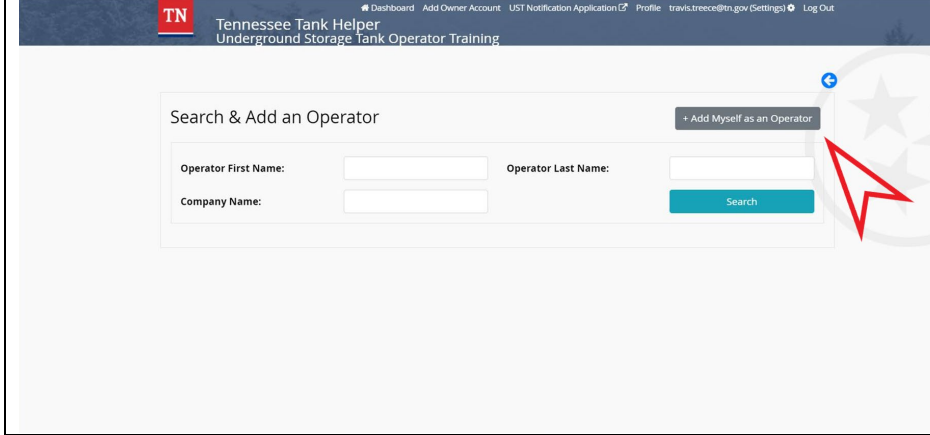
UNSUCCESSFUL OWNER ID ENTERED	
	<p>This screen displays when an owner ID entry is unsuccessful.</p>

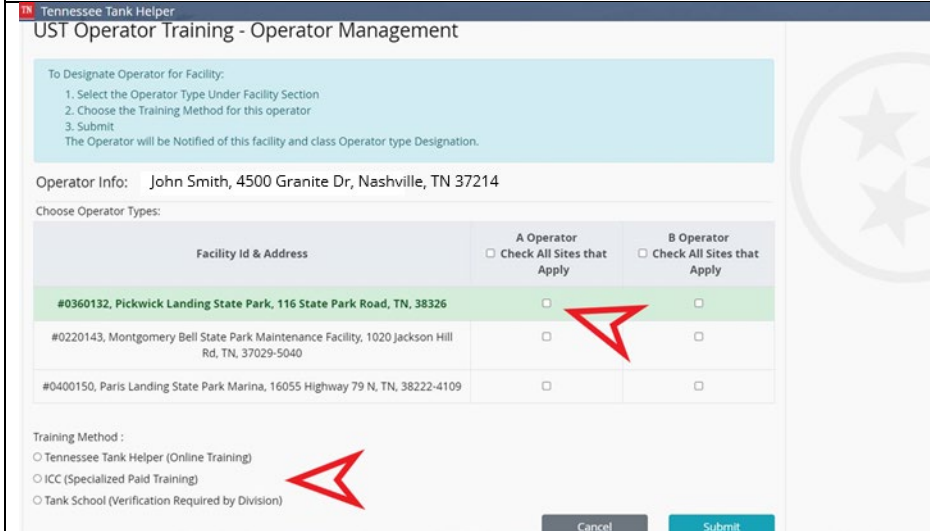
SUCCESSFUL OWNER ID ENTERED	
	<p>This screen displays when an owner ID entry is successful.</p> <p>Multiple owner IDs may be added to an account.</p>

Owners: Designating Operators for Your Facility

<div data-bbox="212 304 1192 928"> <h3>LOGIN</h3> <p>Operator Training</p> <p>TENNESSEE UST OPERATOR TRAINING</p> <p>Owners of facilities which have underground storage tanks are now required to have operators oversee and maintain the tanks. Operators will be required to take training for underground storage tanks. The application will allow owners to designate operators and allow operators to take online training. There are three categories of operators: A, B, and C. Owners will be required to state the designated operators for all of the owner's facilities. The designated operators using the application for training will be required to take the modules which are required for the facility that they are designated for.</p> <p>Login</p> <p>If you had an account on the prior Tank Helper application you will still need to register to use this application. You can use the Register button below.</p> <p>Register Login</p> <p>Forgot User Name or Password?</p> <p>Need help? Email TDEC Help Desk at BG-Help_Desk@tn.gov or call (615) 532-0287.</p> <p>Class Operators - Some Things You Should Know</p> <ul style="list-style-type: none"> The online UST Operator Training is in English only A module must be completed in its entirety before you can be scored on that module. Otherwise, answers to questions will not be saved. Class Operators must create a profile in the UST Operator Training system. Find out what type of Class Operator you are. If you do not have tanks in Tennessee and are taking training for another state you will need to sign in as an operator, even if you are an owner. <p>Facility Owners - Some Things You Should Know</p> <ul style="list-style-type: none"> Class Operator designations must come from a search of available operators, unless as an Owner you will be the Designated Operator. If your search does not return the name of the operator you were searching for, you may either exit the system or conduct another search. Failed results indicate that the operator has not entered his profile into the system. If you are an owner and also want to designate yourself as a Class Operator, only one log in account is necessary. To log in as either an Owner or a designated owner/operator use the Facility Owners log in area above. List of Tennessee Division of Underground Storage Tanks Field Offices. </div>	<p>To access your Tank Helper account, go to the website https://tdec.tn.gov/tankhelper and login using your email and password.</p>
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<div data-bbox="212 1003 1192 1476"> <h3>OWNER DASHBOARD</h3> <p>UST Operator Training - Owner Dashboard</p> <p>Learn more about Class Operator Types.</p> <p>List of Tennessee Division of Underground Storage Tanks Field Offices.</p> <p>Notify the Underground Storage Tank Division if the information displayed regarding owner information or tank information is incorrect.</p> <p>Designated Class Operator(s) Information My Designations My Trainings</p> <p>Tennessee Department of Conservation #300011 312 Rosa L Parks Ave State Parks- Attn: Murray Crow Nashville TN 37243-1102</p> <p>Disassociate from Tennessee Department of Conservation</p> <p>Pickwick Landing State Park #0360132 (116 State Park Road, TN 38326) There is not an accepted A and B designation which has a training status of completed</p> <p>Add Operator View Compliance Plan</p> <p>Designation Type: A</p> </div>	<p>On the dashboard, locate desired facility and select "Add Operator" from the right portion of the screen.</p>
---	---

ADD OWNER AS THE A / B OPERATOR	
	<p>To designate an owner or owner's representative as the Class A / B Operator, select "Add Myself as an Operator"</p>

OPERATOR ROLE AND TRAINING METHOD													
 <p>To Designate Operator for Facility:</p> <ol style="list-style-type: none"> 1. Select the Operator Type Under Facility Section 2. Choose the Training Method for this operator 3. Submit <p>The Operator will be Notified of this facility and class Operator type Designation.</p> <p>Operator Info: John Smith, 4500 Granite Dr, Nashville, TN 37214</p> <p>Choose Operator Types:</p> <table border="1"> <thead> <tr> <th>Facility Id & Address</th> <th>A Operator <input type="checkbox"/> Check All Sites that Apply</th> <th>B Operator <input type="checkbox"/> Check All Sites that Apply</th> </tr> </thead> <tbody> <tr> <td>#0360132, Pickwick Landing State Park, 116 State Park Road, TN, 38326</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>#0220143, Montgomery Bell State Park Maintenance Facility, 1020 Jackson Hill Rd, TN, 37029-5040</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>#0400150, Paris Landing State Park Marina, 16055 Highway 79 N, TN, 38222-4109</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table> <p>Training Method :</p> <ul style="list-style-type: none"> <input type="radio"/> Tennessee Tank Helper (Online Training) <input type="radio"/> ICC (Specialized Paid Training) <input type="radio"/> Tank School (Verification Required by Division) <p>Cancel Submit</p>	Facility Id & Address	A Operator <input type="checkbox"/> Check All Sites that Apply	B Operator <input type="checkbox"/> Check All Sites that Apply	#0360132, Pickwick Landing State Park, 116 State Park Road, TN, 38326	<input type="checkbox"/>	<input type="checkbox"/>	#0220143, Montgomery Bell State Park Maintenance Facility, 1020 Jackson Hill Rd, TN, 37029-5040	<input type="checkbox"/>	<input type="checkbox"/>	#0400150, Paris Landing State Park Marina, 16055 Highway 79 N, TN, 38222-4109	<input type="checkbox"/>	<input type="checkbox"/>	<p>Select facilities and check corresponding Class A / B operator checkboxes.</p> <p>Select operator training method underneath facilities' list at the bottom left.</p> <p>Select SUBMIT.</p>
Facility Id & Address	A Operator <input type="checkbox"/> Check All Sites that Apply	B Operator <input type="checkbox"/> Check All Sites that Apply											
#0360132, Pickwick Landing State Park, 116 State Park Road, TN, 38326	<input type="checkbox"/>	<input type="checkbox"/>											
#0220143, Montgomery Bell State Park Maintenance Facility, 1020 Jackson Hill Rd, TN, 37029-5040	<input type="checkbox"/>	<input type="checkbox"/>											
#0400150, Paris Landing State Park Marina, 16055 Highway 79 N, TN, 38222-4109	<input type="checkbox"/>	<input type="checkbox"/>											

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)

Name	Company	Address	Phone	
Berry, Mitzie	TDEC DUST JCEFO	2305 Silverdale Dr, TN 37601	(423) 854-5400	Select

Verify all operator information is correct before making the selection.

A / B OPERATOR ROLE SELECTION

To Designate Operator for Facility:

- Select the Operator Type Under Facility Section
- Choose the Training Method for this operator
- Submit.

The Operator will be Notified of this facility and class Operator type Designation.

Operator Info: Mitzie Berry, 2305 Silverdale Dr, TN, 37601

Choose Operator Types:

Facility Id & Address	A Operator <input type="checkbox"/> Check All Sites that Apply	B Operator <input type="checkbox"/> Check All Sites that Apply
#0360132, Pickwick Landing State Park, 116 State Park Road, TN, 38326	<input type="checkbox"/>	<input type="checkbox"/>
#0220143, Montgomery Bell State Park Maintenance Facility, 1020 Jackson Hill Rd, TN, 37029-5040	<input type="checkbox"/>	<input type="checkbox"/>
#0400150, Paris Landing State Park Marina, 16055 Highway 79 N, TN, 38222-4109	<input type="checkbox"/>	<input type="checkbox"/>

Select A / B operator role for corresponding facilities.


Select **SUBMIT**.

Operators: Accept the Designation from the Owner

TN
Tennessee Tank Helper
Underground Storage Tank Operator Training
Home Login Register

Operator Training

TENNESSEE
UST OPERATOR
TRAINING



Owners of facilities which have underground storage tanks are now required to have operators oversee and maintain the tanks. Operators will be required to take training for underground storage tanks. The application will allow owners to designate operators and allow operators to take online training. There are three categories of operators: A, B, and C. Owners will be required to state the designated operators for all of the owner's facilities. The designated operators using the application for training will be required to take the modules which are required for the facility that they are designated for.

Login

If you had an account on the prior Tank Helper application you will still need to register to use this application. You can use the Register button below.

Forgot User Name or Password?

Need help? Email TDEC Help Desk at BG-Help_Desk@tn.gov or call (615) 532-0287.

Class Operators - Some Things You Should Know

- [The online UST Operator Training is in English only](#)
- [A module must be completed in its entirety before you can be scored on that module. Otherwise, answers to questions will not be saved.](#)
- [Class Operators must create a profile in the UST Operator Training system.](#)
- [Find out what type of Class Operator you are.](#)
- [If you do not have tanks in Tennessee and are taking training for another state you will need to sign in as an operator, even if you are an owner.](#)

Facility Owners - Some Things You Should Know

- [Class Operator designations must come from a search of available operators, unless as an Owner you will be the Designated Operator. If your search does not return the name of the operator you were searching for, you may either exit the system or conduct another search. Failed results indicate that the operator has not entered his profile into the system.](#)
- [If you are an owner and also want to designate yourself as a Class Operator, only one log in account is necessary. To log in as either an Owner or a designated owner/operator use the Facility Owners log in area above.](#)
- [List of Tennessee Division of Underground Storage Tanks Field Offices.](#)

LOGIN

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

TN
Tennessee Tank Helper
Underground Storage Tank Operator Training
Dashboard Add Owner Account UST Notification Application Profile travis.treece@tn.gov(Settings) Log Out

UST Operator Training - Owner Dashboard

[Learn more about Class Operator Types.](#)

[List of Tennessee Division of Underground Storage Tanks Field Offices.](#)

[Notify the Underground Storage Tank Division if the information displayed regarding owner information or tank information is incorrect.](#)

Designated Class Operator(s) Information
My Designations
My Trainings

Pending Designations:

Facility Name	Facility Address	Facility ID	Owner Name	Owner Id	Designation Type	
Montgomery Bell State Park Maintenance Facility	1020 Jackson Hill Rd	#0220143	Tennessee Department of Conservation	300011	A	<input type="radio"/> Accept <input checked="" type="radio"/> Reject
Montgomery Bell State Park Maintenance Facility	1020 Jackson Hill Rd	#0220143	Tennessee Department of Conservation	300011	B	<input type="radio"/> Accept <input checked="" type="radio"/> Reject

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

The screenshot shows a web application interface with a navigation bar at the top containing links for Dashboard, Add Owner Account, UST Notification Application, Profile, and Log Out. A blue notification banner at the top of the main content area reads: "Your Owner will be notified of this Acceptance. You may wish to enter the comments." Below this is a "Training Method" section with three radio button options: "Tennessee Tank Helper (Online Training)", "ICC (Specialized Paid Training)", and "Tank School (Verification Required by Division)". A "Comments:" label is followed by a text input field. At the bottom of the pop-up are "Cancel" and "Submit" buttons. In the background, a table titled "Pending Designations" is visible, listing two entries for "Montgomery Bell State Park Maintenance Facility" with columns for Facility Name, Address, ID, Owner Name, Owner Id, and Designation Type. Each entry has "Accept" and "Reject" buttons.

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

Select Training Method. Comments are optional.

Click **SUBMIT**.

DASHBOARD - REJECT PENDING DESIGNATIONS & TRAINING METHOD

The screenshot shows the same web application interface as above, but with a yellow notification banner that reads: "Your Owner will be notified of this Rejection. You may wish to enter the comments." The "Training Method" section is not visible in this pop-up. The "Comments:" label is followed by a text input field. At the bottom are "Cancel" and "Submit" buttons. The background table and interface elements are the same as in the previous screenshot.

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 (CSLD) 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 1/8th 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 ***pass, fail, or inconclusive***.

Pass

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

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.

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.

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 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.
 - 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 BGSPPEAP@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> .

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