

December 2022

## Preventing Explosions in the Workplace

Always follow these do's and don'ts of safe work practices to prevent accidents and explosions:

- **Don't** expose explosives to heat sources or let heat buildup in the air or in containers.
- **Do** store explosives in approved containers and cabinets only.
- **Do** ventilate properly all areas containing explosives or flammables.
- **Do** store explosives in approved containers in clean, ventilated areas, and be sure containers used to transfer flammables are grounded.
- **Do** check that cylinders and pressure vessels have safety relief devices to vent or release dangerous pressure buildup.
- **Do** avoid air or heat exposure when transferring explosives to new containers.
- **Don't** keep explosives like dynamite past their shelf-life dates.
- **Do** dispose of flammables properly—never on the ground or in sewers.
- **Do** place oily rags and other flammable waste in closed metal containers.
- **Do** clean up spills of possible explosives quickly and remove heat and ignition sources from the area.
- **Don't** smoke in or around any area that contains explosives or flammables.
- **Do** report immediately any equipment problems such as overheating, leaks, sparks, or carbon buildup corrosion. Remember that stress and weak connections can contribute to explosions.
- **Do** make sure ventilation equipment is working properly to remove vapors and dusts from the area.

## Inspecting Self-Retracting Lifelines

Wearing a personal fall protection system when you work at height can help prevent you from falling and suffering life-threatening injuries. But did you know that if you don't regularly and properly inspect your fall protection for wear and damage, it might not save you when it counts? To avoid any incidents, follow these inspection tips for self-retracting lifelines.

Before you use a self-retracting lifeline for the first time during your work shift, inspect it for mildew, wear, damage, and other deterioration.

- Inspect the unit's housing for loose fasteners such as nuts, bolts, rivets, or screws and for bent, cracked, distorted, worn, malfunctioning, or damaged parts.
- Test the lifeline retraction and tension by pulling out several feet of the lifeline and allowing it to retract into the unit. Always maintain a light tension on the lifeline as it retracts. The lifeline should pull out freely and retract all the way back into the unit. Do not use the unit if the lifeline does not retract.
- Check the lifeline for signs of damage, including cuts, burns, corrosion, kinks, frays, or worn areas. Inspect any sewn areas for loose, broken, or damaged stitching.
- Test the braking mechanism by grasping the lifeline above the impact indicator and applying a sharp, steady pull downward that will engage the brakes. There should be no slippage of the lifeline while the brakes are engaged. Once tension is released, the brakes should disengage, and the unit will return to the retractable mode. Do not use the unit if the brakes do not engage.
- Inspect snap hooks closely for hook and eye distortions, cracks, corrosion, or pitted surfaces. The latch, or keeper, should fit into the nose without binding and should not be distorted or obstructed. The keeper spring should produce enough force to firmly close the keeper, and the keeper lock must prevent the keeper from opening.
- The protective plastic sleeve, called the thimble, must fit firmly in the eye of the splice, and the splice must not have loose or cut strands. The edges of the thimble must not have any sharp edges, distortions, or cracks.
- Check the snap hook load indicator, which is located in the swivel of the snap hook. The swivel eye will elongate and expose a red area when subjected to fall-arresting forces. Do not use the unit if the load impact indicator has been activated.
- Make sure labels are present and legible and inspect each system component according to the manufacturer's instructions.

## Addressing damage

If you find any damage, remove the self-retracting lifeline from service immediately, and tag or mark it as unusable. If any part of the personal fall protection system is involved in a fall incident, remove it from service immediately. Do not use it again until a competent person inspects the system and determines that it is not damaged and is safe to use. In the meantime, be sure your employer provides you with a replacement means of fall protection, and never perform work at height without it!

## Holiday Safety

The holidays are a time when families gather, parties are scheduled, and travel spikes. The holidays can also present seasonal safety hazards. Use the following tips to keep you and your loved ones safe this holiday:

### Decorating

- Only use indoor lights indoors and outdoor lights outdoors and choose the right ladder for the task when hanging lights.
- Avoid placing breakable ornaments or ones with small, detachable parts on lower tree branches where small children can reach them.
- Keep poinsettias, mistletoe, and holly away from pets.

### Electrical Safety

- Avoid electrical fires by purchasing lights from reputable retailers and only those approved by nationally recognized testing labs like UL, Intertek, or CSA.
- Inspect both indoor and outdoor lights for broken sockets, frayed wires, and loose connections.
- Don't overload outlets with too many electrical devices.

### Fire Prevention

- Place candles where they cannot be knocked down and out of reach of children.
- Use flameless, candles near flammable objects.
- Always use a screen on the fireplace when a fire is burning.
- If using a live tree, make sure it has plenty of water and is at least 3 feet away from heat sources.

### Travel Safety

- Prepare your car for winter and keep an emergency kit with you.
- Leave early to avoid traffic.
- Designate a sober driver or download a ride-hailing app from your phone ahead of time if you plan to drink at holiday gatherings.



## PPE for Construction Workers – Hand Protection

Most hand injuries at construction sites can be prevented if you wear the appropriate personal protective equipment (PPE), including gloves. Keep in mind that not all gloves are the same. So, how do you choose the right type?

- Use metal mesh, Kevlar®, or other cut-resistant gloves to protect against cuts and punctures if you are handling saws, knives, glass, or other sharp objects.
- Use leather or canvas work gloves to protect against scrapes from rough surfaces, chips, sparks, and moderate heat. These can be coated with other materials to improve your grip.
- Use cotton gloves to protect against dirt, splinters, and scratches and to help you grip slippery objects. However, never use them with rough or sharp materials.
- If you are doing electrical work, use specially insulated rubber gloves to protect against electrical shocks and burns.
- If you are welding, use fire-retardant, gauntlet-type gloves to protect against high heat, sparks, and spatter. Leather is usually the preferred material for welding gloves.
- If you are working with chemicals, use chemical-resistant gloves made of rubber, latex, Viton®, butyl, nitrile, neoprene, or PVC. The types of gloves you should choose will be specific to the chemical you are using and the length of time you are using it. The glove packaging will tell you which chemicals the glove is designed for and how long the glove will protect you.

## PPE for Construction Workers—Hand Protection: QUIZ

1. Most hand injuries at construction sites can be prevented if you wear the appropriate personal protective equipment (PPE), including gloves. **TRUE** or **FALSE**
2. You can use the same type of glove for different tasks. **TRUE** or **FALSE**
3. What kinds of gloves should you wear when handling sharp objects?
  - A. Leather gloves
  - B. Metal mesh gloves
  - C. Insulated rubber
  - D. Cotton gloves
4. What kinds of gloves should you wear to help you grip slippery objects?
  - A. Leather gloves
  - B. Metal mesh gloves
  - C. Insulated rubber
  - D. Cotton gloves



### ANSWERS

1. TRUE. 2. FALSE. 3. B. 4. D.

## Underground Storage Tank Operator—Understanding Your Automatic Tank Gauge: QUIZ

1. It is uncommon to find deficiencies with release detection systems. **TRUE** or **FALSE**
2. If you are a Class C operator, you must know the appropriate response when a release detection alarm sounds. **TRUE** or **FALSE**
3. How many different ATG makes, and models are there?
  - A. 10
  - B. 20
  - C. 30
  - D. 40
4. You must perform a \_\_\_\_\_ test and be able to identify if your tank system is releasing product.
  - E. Daily
  - F. Weekly
  - G. Biweekly
  - H. Monthly



## Underground Storage Tank Operator—Understanding Your Automatic Tank Gauge: ANSWERS

1. **FALSE.** It is not uncommon to find deficiencies with release detection systems.
2. **TRUE.** If you are a Class C operator, you must know the appropriate response when a release detection alarm sounds.
3. **D.** There are over 40 different ATG makes and models.
4. **D.** You must perform a monthly test and be able to identify if your tank system is releasing product.

## Underground Storage Tank Operator—Understanding Your Automatic Tank Gauge

As an underground storage tank (UST) operator, it's vital to know best management practices for release detection. Understanding your release detection system can minimize releases and help you react quickly before major environmental and human health problems occur.

It is not uncommon to find deficiencies with release detection systems. For example, failing to test the release detection systems or to even install these devices can result in significant and costly penalties. In addition, alarms on release detection systems may sound even when there is not a release of gasoline or product. Failing to correct these malfunctions can also result in gasoline delivery bans.

It is essential for Class A and Class B operators to test release detection equipment and understand the results. Also, if you are a Class C operator, you must know the appropriate response when a release detection alarm sounds.

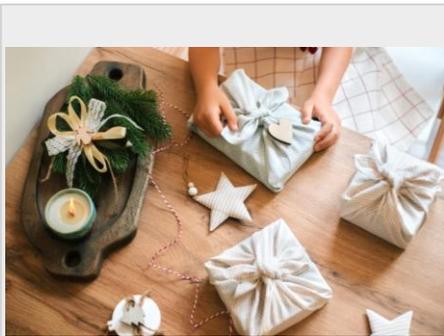
**Getting to know your automatic tank gauge (ATG).** There are over 40 different ATG makes and models. Understanding how your ATG functions starts with getting to know the basics.

Locate the following in the owner's manual:

- The name, equipment type, and basic system description. This information will provide you with the name of the device, the model series, and any unique aspects of the device. You will also find an illustration of the device console to compare with your system.
- Leak rates and device thresholds. This information will provide you with the rate at which a leak is detected and the leak thresholds.
- Applicability. It is critical that your ATG system be able to actually detect the product stored in the tank.
- Tank capacity. This information notes the maximum capacity of the tank and how full the tank needs to be for the device to work.
- Waiting times and testing periods. Knowing how long to wait between deliveries and testing or between dispensing and testing varies from ATG to ATG. You will also find how long it will take to complete each test.
- Sample reports. These are hidden gems in every owner's manual. These samples are identical representations of the report your device will produce when you run a test. Use these samples to help you read and interpret your ATG reports.

**Linking your ATG with Compliance Requirements.** As a UST owner or operator, it is not enough to simply know what equipment you have installed. You must perform a monthly test and be able to identify if your tank system is releasing product.

- Make sure that the ATG probe is on and communicating with the console.
- Double-check that you have enough product in the tank to run a test.
- Make sure you have printer paper installed.
- Give yourself plenty of time to run a test.
- Respond promptly to all alarms, flashing lights, or beeps.



## Happy Sustainable Holidays!

The holiday season is a festive time of year, with celebrations, presents, and time spent with family and friends. However, it also can lead to an increase in the amount of waste we generate and energy that we use. Fortunately, there are some ways to make the holidays a little more eco-friendly:

### Gift Wrap

- Ensure your wrapping paper is recyclable. Wrapping paper with metallic flakes, colored shapes, glitter, and plastics cannot be recycled.
- Use a gift bag or basket. These can be used year after year.
- Make the wrapping part of a gift. For example, you can fill a gardening pot with gardening supplies.

### Lighting

- Use Energy Star®-qualified LED lights. They are 90 percent more efficient than traditional lights and have a longer life span.
- Recycle your old holiday lights. Instead of tossing them out, you can bring your old lights to a thrift store (if in working condition) or hardware store (if faulty).
- Use a timer so that your lights are only on for a certain amount of time.

### Trees

- Consider buying a potted tree with a root ball that is native to your area. Potted Christmas trees can be replanted after the holidays and reused all year long.
- If purchasing a cut tree, make sure it is locally grown and gets mulched or otherwise recycled after the holidays rather than thrown into a landfill.

### Presents

- DIY your gifts. Some ideas include homemade ornaments, handmade soap, and baked goods.
- Gift an experience, such as a zoo or museum membership, a spa day, or an art workshop.

## Chemical Spotlight: Diethylaminoethanol

Diethylaminoethanol is a colorless liquid with a weak ammonia-like odor. It is used in making medicines, pharmaceuticals, and other chemicals. Store Diethylaminoethanol in tightly closed containers in a cool, well-ventilated area away from heat and sunlight. Diethylaminoethanol is not compatible with oxidizing agents, strong acids, copper, zinc, and galvanized iron.

If Diethylaminoethanol is spilled or leaked, avoid breathing vapors, mist, or gas, and ensure adequate ventilation. Remove all sources of ignition and evacuate personnel to safe areas. Use personal protective equipment (PPE), including goggles or safety glasses, gloves, flame-retardant protective clothing, and respiratory protection.

Prevent further leakage or spillage if safe to do so, and do not let the product enter drains, sewers, underground or confined spaces, groundwater, or waterways or discharge into the environment. Absorb liquids in vermiculite, dry sand, earth, or a similar material, and deposit in sealed containers. Ventilate and wash the area after cleanup is complete. It may be necessary to contain and dispose of Diethylaminoethanol as a hazardous waste. Contact the federal and local Environmental Protection Agency (EPA) for specific recommendations.

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EDPNOCEADS  
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PREVENTING  
PAPEDOOANS

preventing  
explosions  
fall  
protection  
holiday  
safety  
hand  
gloves



ATGKEEASEK  
CTWATAGOIO  
CCAATUALKS  
HLEDSAUEEA  
EOUMATGACT  
MGLYEAELLL  
IYERIRNYEKG  
CAEODKMDKI  
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storage  
tank  
automatic  
gauge  
holiday  
waste  
chemical  
leaked