



A MINI TRAINING SESSION FOR INJURY PREVENTION

Quick Take on Safety

Portable Fuel Containers

TRAINING OVERVIEW AND OBJECTIVES

Overview: Covers approved portable fuel containers and how to use them safely.

Purpose: To define characteristics of approved fuel containers and how to use in a manner to prevent injuries or property damage.

Preparation:

- Read and become familiar with this Quick Take. *Change as needed to reflect procedures and personnel in your department.*
- Review current gasoline cans and replace any nonapproved safety cans with approved safety cans.
- Consider bringing a gas can to demonstrate safety features.

Handouts: Quick Review of Safety—Portable Fuel Containers

Note: The Occupational Safety and Health Administration (OSHA) requires that gasoline and other flammable liquids be contained in approved safety cans when used by any business or commercial enterprise. All safety cans must:

- Be approved by a nationally recognized testing laboratory, such as UL.
- Have no more than 5 gallons capacity.
- Have a flash-arresting screen.
- Have a spring-closing spout cap designed to safely relieve internal pressure when exposed to heat.

Most of the plastic gasoline containers available are designed for residential and home use and are not suitable for the workplace.

Hazards

Gasoline and fuel is something almost all of us use on a regular basis. We often don't think about the hazards associated with it. Improper use can result in fires, spills or splashes leading to significant injury, pollution or property damage. For these reasons, it is important that we store and use gasoline and other flammable liquids properly. So please pay careful attention, your health and safety are important to us; we don't want you to get hurt.

Portable Gas Can Refueling

[*Instructor Prompt:* Consider using a gas can as a prop when talking about the following sections.]

- Ensure the container has a functioning cap that fits well and the container is free from signs of damage or cracks.

- Place containers on the ground when filling them. Do not place them in a vehicle's trunk, pickup bed or other surface. The insulating effects of pickup bed liners or other items can prevent static charges from grounding properly and could generate a static shock, which could ignite the gasoline vapor.
- Keep containers away from other people and potential ignition sources. Do not smoke when refueling gas cans.
- Keep the nozzle in contact with the can during filling to avoid spills and to help prevent a static discharge.
- Do not overfill a gas container. Leave some room at the top to allow for expansion, particularly in hot weather.
- Address any spills promptly with appropriate cleanup materials and personal protective equipment if necessary.

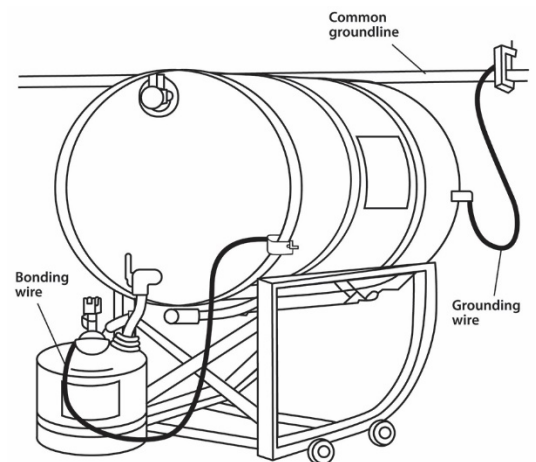
Equipment Refueling

- Turn off equipment, such as chainsaws, lawnmowers or snow blowers, and give the engine time to cool. Never refuel hot equipment.
- Stay away from nearby flammable materials or sources of ignition. Do not smoke while refueling equipment.
- Be aware of the location of nearby fire extinguishers prior to refueling.
- Proceed slowly to minimize the risk of spills.
- Do not overfill the tank. Allow room for expansion, particularly on hot days.

Bonding and Grounding

When pumping or transferring flammables with flash points less than 100 degrees, the following bonding and grounding procedures should be observed. [*Instructor Prompt:* Identify all flammable liquids transferred, pumped or frequently agitated at the facility and determine flash points. Consider demonstrating the following steps as you discuss them.]

- Connections to bulk containers should have a metal-to-metal connection with an earth ground that uses a grounding wire.
- When connecting grounding and bonding wires, confirm metal-to-metal contact. Watch out for paint or rust as this can block the flow of electrical energy.
- When transferring from a bonded container to a portable safety can, be sure there is a metal-to-metal connection with a bonding wire to the safety container. This wire is often attached with spring-type clamps.
- If polyethylene containers are used, they should be grounded. Most approved polyethylene safety containers have a grounding lug for this connection. [*Instructor Prompt:* Inspect and determine if polyethylene safety containers have grounding lugs and demonstrate the location.]
- Periodically inspect wires and connections to ensure grounding is not interrupted.



[*Instructor Prompt:* It may be a good time now to mention the importance of consulting Safety Data Sheets when using chemicals to determine flammability or flash points, spill cleanup recommendations, required PPE, first-aid procedures and locations of safety devices, such as eyewash stations or first-aid kits.]

Discussion Questions

- What else can we do to minimize hazards from portable gas cans?
- Are all of the gas cans in use approved safety cans?
- Which activities or flammable liquids present the greatest risks, and how can we reduce those risks?

Portable Fuel Containers Session Planning and Review

Trainer

Training
Date

Department(s)

TRAINING GOALS

- Employees understand some of the hazards associated with fueling equipment or containers.
- Employees know how safely to use fuel containers.
- Employees understand and practice bonding and grounding when necessary.

RESOURCES

- “Public Works Loss Prevention Best Practices Guide” or “Solid Waste Management Loss Prevention Best Practices Guide”: Chapter 5 Bonding and Grounding,” MCIT.org
- Occupational Safety and Health Administration, CFR 1910.106 “Flammable Liquids,” OSHA.gov
- Minnesota State Fire Code, DPS.MN.gov

REVIEW

Did the training meet the stated goals?

How can the training be improved?

TRAINER COMMENTS

