

Instructor Notes: Handling gasoline is a normal, everyday occurrence for most towing operators, especially those who provide road service to stranded customers. While gasoline is important to our lives it is also dangerous if not handled, stored and transported correctly. Take a moment to discuss these gasoline safety tips with your staff during your next towing safety meeting to prevent problems from igniting.

Safety Meeting 2016 #4 – Don't Be "Fuelish": Handle Gasoline with Care



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Gasoline is a wonderful tool and a terrible enemy. Gasoline ignites easily, burns vigorously and may explode if not stored properly. Unfortunately, most of us are so familiar with gasoline that we tend to ignore its hazards. Fire, unintentional spills and illness due to inhalation are a few of the potentially tragic consequences of handling gasoline. Anywhere there is gasoline there is potential for danger but you can reduce risk of tragedy by paying attention to potential hazards and taking precautions when using or transporting portable fuel cans.

Materials of Trade

Certain hazardous materials transported in small quantities as a part of business are subject to less regulation and are known as "materials of trade." Under this exemption, gasoline (up to eight gallons) can be transported in/on a tow truck provided the portable fuel container is leak-proof, securely closed, secured to prevent movement and protected from damage. In addition, gasoline must be in a metal or plastic container that meets D.O.T. or O.S.H.A. requirements listed in 29 CFR 1910.106(d)(2) or 1926.152(a)(1). By its terms, O.S.H.A. requires the use of an approved metal or plastic "safety can" (approved by a nationally-recognized testing laboratory) for the handling and use of gasoline. Further, a safety can by definition is a container with a capacity of five gallons or less and equipped with a spring-closing lid and spout cover, a means to relieve internal pressure and a flash-arresting screen.

Filling a Gasoline Container

When filling a gasoline container, always place the container on the ground. Filling a gas can while it is on a bed-liner, dry-deck or carpeted mats may cause a dangerous static electricity build up due to the insulating effects of the materials. Don't smoke while filling the container and manually control the nozzle valve throughout the filling process. Fill the container no more than 95 percent full to allow room for vapor expansion.

Health Hazards

Besides the obvious risk of a potential fire, gasoline is dangerous for your health because it's toxic. Exposure to gasoline, either through physical contact, inhalation – or worse – ingestion, can cause health problems and harm every major organ. Limit breathing in gasoline fumes. Skin that has been in contact with gasoline should be washed with soap and water. Do not attempt to syphon gasoline by sucking on a hose.

Fire Risks

Gasoline and diesel fuel are similar but their flashpoints differ. First, a flashpoint is the lowest temperature at which vapors of a fluid will ignite with the help of an outside ignition source. Gasoline is considered a "flammable" liquid because its flashpoint is below 100 degrees, whereas diesel fuel is considered a "combustible" liquid because its flashpoint is at or above 100 degrees. Since gasoline is a flammable liquid it should

be stored in a cool place to minimize vapor expansion. When transporting portable fuel containers in your truck, avoid sparks like those produced by a metal grinder, keep them out of the sun and remain cautious if you work in areas of excessive heat, especially if you store your gas cans inside a tool cabinet. To make matters worse, gasoline vapors are heavier than air and can travel along the ground to remote ignition sources some distance away.

Protect the Environment

It is estimated that there are about 80 million portable fuel containers in the United States and over 70,000 gallons of gasoline are spilled from them each year. Spilled gasoline impacts the environment two ways: contributing to smog-forming greenhouse gases and contaminating water systems. When able, replace older gas cans with newer environmentally-friendly versions that limit vapor release and have automatic closures or shut-offs to reduce spills.

Gasoline Storage and Handling Guidance

In conclusion, there are a wide variety of codes, standards and regulations that cover storage and handling of gasoline within the United States and Canada. Find which ones apply to you. Your local and state government may be a great place to start. In addition, there are quite a few online sources that may offer guidance, including the American Petroleum Institute's website. Remember, gasoline safety – it's a choice, not a chance.