



# Coffee Break Training - Hazardous Materials

## Petroleum Crude Oil: Railroad Safety Procedures

No. HM-2014-5 November 17, 2014

**Learning Objective:** The student will be able to explain the proper safety procedures for working on and around rail tank cars and associated equipment at the scene of a crude oil rail incident.

In the event of a train derailment, emergency response personnel should always be aware of the potential for serious injury when working in and around rail cars, tracks and related equipment. The potential for injury always exists, especially if a fire or spill is involved. Regardless of the scope and magnitude of an incident, it is imperative that responders are keenly aware of the proper precautions to take to prevent injury and death.

The following safe operating practices should be followed when personnel are engaged in emergency response operations at the scene of a crude oil train derailment:

- Expect a train or rail equipment to move on any track from either direction at any time.
- Watch for movement in both directions before crossing tracks. If the tracks are clear, walk single file at a right angle to the rails. Do not occupy the area between adjacent tracks in multiple track territory when a train is passing. If crossing between two stationary railcars, ensure that there is at least 50 feet between them.
- Trains can approach with little or no warning. You may not be able to hear them due to atmospheric conditions, terrain, noisy work equipment, or passing trains on other tracks. Stand a minimum of 25 feet away from the tracks if possible, and face the train when rail equipment is passing through.
- Never stand, walk or sit on railway tracks, between the rails or on the ends of ties. Never step on the rail; step over it. The rail can be a slip, trip or fall hazard. Never put your feet on moveable parts of a rail car, such as couplers, sliding sills or uncoupling levers.
- Be especially careful working in rail yards and terminal areas. Tank cars are pushed and moved, and they can change tracks often. Cars that appear to be stationary or in storage can begin to move without warning. Be sure that any rail equipment is secured against movement (wheels chocked, hand brakes secured, etc.) before attempting to work on or near it. Keep at least 25 feet away from the end of a car or locomotive to protect yourself from sudden movement.
- If it is necessary to climb rail equipment, use three points of contact at all times. The ladders on rail equipment may curve around the car, making it difficult to find the rung with your foot. The first step onto rail equipment is typically some distance off the ground. When descending the ladder, step; do not jump from the last step. Normally, there is ballast around the tracks that can be uneven and shift, causing a fall hazard. Locomotive steps are considered ladders. Always face the locomotive going up and coming down.
- Never cross over or under rail equipment; use the ladders, handholds and crossover platforms or walk around the attached equipment. Remember to block the feet and tie off ladders at the top. When laddering tank cars or boxcars, always consider using two points of access; the second is a point of escape should the other become inaccessible for any reason. Plan to use your own ladders.
- Avoid the use of cellphones when within 25 feet of live tracks.



It is critical that first responders take the proper safety precautions when working at the scene of a train derailment to prevent injury and death.

Additional informational materials for first responders to better prepare them to respond to a crude oil rail transportation incident can be downloaded at <http://www.phmsa.dot.gov/hazmat/osd/emergencyresponse>. The Association of American Railroads also provides crude oil transportation safety-related information that can be accessed at <https://www.aar.org/safety/Pages/crude-by-rail-facts.aspx>.

**For archived downloads, go to:**

**[www.usfa.fema.gov/training/coffee\\_break/](http://www.usfa.fema.gov/training/coffee_break/)**