Railway Operations Safety Meeting Kit



What’s At Stake

The passenger and freight railroad industry has a long history of hard work, long hours, and strict timelines. Railroad worker injuries and fatalities have dropped over time, but they still occur at higher rates than many other industries.

What’s the Danger

Without the proper controls and railway safety training in place, it’s easy to walk on the wrong track or have a piece of heavy machinery backfire. It doesn’t matter if you’re a track laborer, an excavator operator or a thermite welder – every railway employee faces these challenging conditions at work every single day.

DANGERS OF RAILWAY OPERATIONS

Maintaining and improving safety in the railway industry requires the expertise of many professional disciplines including: engineers, operators, safety managers and human factors experts.

1. **Train Collisions.** Collisions can occur between two or more trains or between trains and infrastructure. Collisions between passenger trains travelling in opposite directions at high speed are very rare but the consequences are usually serious. More common occurrences include low speed accidents in stations, depots and yards. Train collisions can have a number of causes: drivers passing signals at danger, faulty routing, speeding, division of trains, poor wheel-rail adhesion and technical and human errors in the signaling system.
2. **Derailments.** Derailments are often related to technical failures such as poor track geometry, damaged or defective switches and crossings, wear and fatigue in the wheel-rail interface, and vehicle suspension faults. Operator errors such as incorrect setting of points, excessive speed and poor driving behaviour can also result in derailments.
3. **Level / Grade Crossings and Trespass.** There is a multitude of scenarios in which accidents occur including road users who are unaware of the level crossing, distraction / inattention, failure of level crossing equipment or

a second train unexpectedly approaching the crossing. The most common accidents result from violations by road users ignoring the warning of approaching trains. Accidents at user worked crossings in rural areas are common. Trespassers present a common risk, particularly in densely populated areas.

4. **Railway Staff Risks.** Track workers are especially vulnerable due to their exposure to moving trains and high voltage electricity, the use of heavy plant and equipment, exposure to poor environmental conditions and frequent need for working anti-social hours.
5. **Stations.** The key risks which require management at stations are typically slips, trips and falls (particularly on stairs and escalators) and boarding and alighting incidents at the interface between the train and the platform.
6. **Suicides.** It is not uncommon for the railways to be used by those wishing to end their own lives. Due to the nature of these incidents, the industry has found it difficult to influence significant reductions in the rate of railway suicides.
7. **Dangerous Goods.** Due to its comparative safety as a mode of transport, railways are often used for the carriage of dangerous goods such as chemicals, petrol, liquefied gasses and nuclear waste.

PROTECTION/PRECAUTIONS TO PREVENT RAIL WORKER INJURIES

- Keep the rail yard clear of debris and garbage to prevent slips, trips, and falls. Clean and maintain walking surfaces of stations and trains. Place guards and warning signs around elevated openings of trains and platforms. Never jump from railcars; the impact of hitting the ground can cause strains and sprains. Wear protective footwear with a heel and non-slip sole.
- Railroad work is strenuous. It involves 24-hour, outdoor work all year. Maintain your level of fitness to adapt to changing seasons, your work schedule, and stress. Follow guidelines for hours-of-service rest. Eat high-energy foods, drink plenty of fluids, and exercise to maintain energy and alertness on shift work. Use good lifting techniques and keep a straight back when moving cars or freight to avoid strains and sprains. Never use drugs or alcohol before or during a work shift. Fatigue and lack of attention can cause serious errors, leading to injury or a fatal mistake.
- Railcars and tankers carry hazardous materials and wastes that pose spill and fire hazards. Be prepared for emergencies; know what materials are being transported and stored in the yard and cars. Safety data sheets (SDS) provide information on material properties and emergency procedures for firefighting and spill cleanup. Get training on chemical safety, emergency response, and emergency equipment you may need to use.
- Railway security such as vandalism, workplace violence, and terrorism are concerns due to remote locations and 24-hour work in all types of neighborhoods. Restrict access and maintain adequate lighting in rail yards. Worker identification (badge) systems help identify authorized workers. Secure trains and control centers from the inside to prevent intruders and trespassing. Use radios and cell phones to communicate during operations and in case of emergency.
- Caught/crush injuries are hazards during coupling, switching, operating doors and hatches, and loading cars. Wear sturdy work gloves for these tasks. Check railcar doors for damage and stability. Open doors slowly to

ensure that the load has not shifted. Do not walk between cars unless they are secured (apply brakes, chock and block, derail, or use bumper blocks). If winches or capstans are being used to move cars, don’t stand between them.

TRAINING, TRAINING, TRAINING

You can see from the mantra of training and how vital it is for worker railroad safety training.

When a worker hits the property, no matter what their role is, they need a basic working knowledge of how to stay safe, how to handle tools and equipment.

To work safely, know your safety program and how to identify and report hazards.

COACHING/MENTORING – Another Layer of Worker Safety Protection

The railway is a unique environment where it can be tough to address all the different scenarios employees will be faced with. Once new hires have completed initial training program, they are paired with senior railroaders for something that is often overlooked: coaching and mentorship. They have an enormous amount of expertise in the field and are able to transfer that knowledge to the newer employees on the job.

FINAL WORD

Track work and rail yard work are the most dangerous in the industry with the highest fatality rates. Workers can get struck by trains when working on active tracks, there is miscommunication with control centers and operators, and/or limited line of sight. Plan maintenance work and limit it to inactive tracks. For routine and emergency repairs, communicate with the yard, controller, and operators about where and when you work.