In-Plant Railroad Safety

Hazards are ever-present in the steel plant environment, and a heightened awareness and emphasis on safety is a necessary priority for our industry. This monthly column, coordinated by members of the AIST Safety & Health Technology Committee, focuses on procedures and practices to promote a safe working environment for everyone.

Authors

George O'Leary
in-plant RR consultant, AM Health and Safety Inc., Pittsburgh, Pa., USA

Steve Rihel
director safety services, AM Health and Safety Inc., Pittsburgh, Pa., USA

Comments are welcome. If you have questions about this topic or other safety issues, please contact safetyfirst@aist.org. Please include your full name, company name, mailing address and email in all correspondence.

Throughout the history of steel plants in America, the process of steelmaking has been aided by in-plant railroads.

Over the years, technological advances and efficiency increases have caused these operations to evolve greatly. In the early days of in-plant railroading, crews consisted of five members: engineer, fireman, conductor, brakeman and flagman brakeman, who used hand signals to communicate and perform switching duties. When crew radios were introduced, teams were reduced to two positions, resulting in three-person crews. These crews performed the same duties with only an engineer, conductor and brakeman.

As technology advanced and remote-controlled engines were introduced, crews were reduced further to two-person teams, a remote operator and conductor, with some plants even using only a single operator to perform all duties.

Of the differences that exist between outside railroad companies and in-plant railroads, the most glaring is the fact that with in-plant rail operations, often there are multiple engines operating in small areas simultaneously. Adding to this issue are the dangers that rail workers must be aware of constantly throughout the workday, such as pinch point areas and close clearances, to name a few.

Although advances in technology have allowed for these duties to be performed with fewer employees, it has made employees more vulnerable to injuries in the workplace. The fatality rate for in-plant railroad workers is seven times the rate of all other steelworkers.

Throughout the years, there have been accidents involving railcars during operations in steel plants that have resulted in fatalities and one employee being crushed.

When keeping in mind all of the duties a rail worker must perform, there are many ways that one can get distracted. While operating the engine, the employee must also listen to his or her radio, always be aware of other dangers, and may be required to switch cars. It is easy to see how these things can lead to distraction and possibly cause accidents.

Important Issues to be Stressed

Providing employees with safety instructions and refresher courses to discuss basic railroad safety procedures as listed in this section can help prevent future accidents.

Always Leave Yourself an Escape Route — When an employee is riding on the head end, he or she should always think of the dangers that may lie ahead, i.e., fences, sharp inclines or road crossings, that would prevent his or her escape in case of an emergency. Being aware of these situations can prevent injury or a fatality if an accident should occur. For example, if a car would derail and the employee was riding on the side between the fence and the railcar, he or she could be crushed.

Never Place Yourself Between a Rail Car and Any Object — When employees are placing railcars for storage, shipment to outside railroads, or servicing the various mills, they should not place themselves between any objects that could trap them, such as buildings or adjoining tracks that have cars on them. This could cause an employee to become trapped if a

rail should break or turn over. In one instance, while standing between two tracks waiting to make a cut on a car the employee needed, the rail broke and caused the cars to derail and crush the employee between two cars.

Always Be Aware of Your Surroundings — At the beginning of each workday, an employee must be aware of the hazards of his or her work area. Being aware of close clearances, tripping hazards, tree branches, scrap on the ground or any other possible hazards could prevent injury to the employee. For example, if an employee steps off of a railcar onto scrap lying on the ground, it could cause injury to the ankle or leg.

Never Turn Your Back to the Train — When an employee is making a cut to a line of cars, he or she should always face the direction of travel. Railcar movement can be extremely quiet and the employee who turns his or her back on the movement could step in front of the railcars or could be knocked to the ground, thus causing an injury or fatality.

When Shoving Cars on a Track, Be Sure They Are in the Clear Before Uncoupling — Employees should always make sure that cars are well out of the way of other tracks before uncoupling them. Cars left on tracks in the foul of other tracks raises the risk of accidents or employee injuries. For example, one employee had to jump off of moving railcars to prevent being crushed by railcars that were left in the foul of the lead track.

Leave Knuckles Open — After uncoupling railcars, employees should leave knuckles open so that all they have to do is couple them up again. It's not only easier, but also safer because the worker does not have to unnecessarily be in between cars.

Conclusion

In-plant railroading today is more dangerous because there are not as many employees to watch over each other. Also, the amount of work required of employees today is much more than when the crews were larger. Therefore, each employee must keep his or her mind on the task at hand to ensure he or she gets home safely each day. ✦