

-----  
DEPARTMENT OF TRANSPORTATION

Federal Railroad Administration

Notice of Safety Advisory 2004-01

AGENCY: Federal Railroad Administration (FRA), DOT.

ACTION: Notice of safety advisory.

-----

SUMMARY: The FRA is issuing Safety Advisory 2004-01 to address recommended safety practices and review existing requirements for the protection of roadway workers from traffic on adjacent tracks and to heighten awareness to prevent the inadvertent fouling of track when on-track safety is not provided.

FOR FURTHER INFORMATION CONTACT: Christopher F. Schulte, Specialist, Track Division, Office of Safety Assurance and Compliance, Federal Railroad Administration, U.S. Department of Transportation, 1120 Vermont Avenue, NW., Washington, DC 20590. Telephone: 202-493-6251; or Cynthia Walters, Office of Chief Counsel, FRA 1129 Vermont Avenue, NW., Washington, DC 20590. Telephone: 202-493-6064.

SUPPLEMENTARY INFORMATION:

Background

The Roadway Worker Protection regulation ("regulation" "rule" or "roadway worker rule") (Subpart C of 49 CFR part 214) has proven to be an effective tool for reducing roadway worker fatalities. Since the regulation became effective in 1997, roadway worker fatalities have declined significantly. However, in 2003, there were five roadway worker fatalities, compared with one fatality in 1999. This suggests that more needs to be done to protect roadway workers. FRA believes that increased awareness by railroads, contractors to railroads, and their employees of certain dangers and how to avoid or minimize them may save lives.

From 1997 to the present, 20 fatalities have been attributed to non-compliance with the regulation. Ten of the 20 fatalities occurred when workers entered fouling space and were struck by a train or on-track equipment. Four of the 10 fatalities involved workers fouling adjacent track in error, while the remaining six have been categorized as involved workers fouling any track in error or fouling a track when unnecessary to perform work duties. This Safety Advisory addresses the circumstances involved in these ten fatalities-inadvertent fouling of tracks or fouling of tracks when unnecessary to perform work.

FRA and other members of the railroad industry have become increasingly concerned about these two categories of roadway worker fatalities. The regulation addresses the first category by requiring on-track safety protection through watchman/lookouts on adjacent track outside working limits for large-scale maintenance or construction (Sec. 214.335). Accordingly,

working limits is an acceptable form of on-track safety for adjacent tracks. The second concern is also addressed in part by the regulation. It prohibits a roadway worker from fouling the track unless necessary for the performance of the worker's duty (Sec. 214.313(b)). The regulation also encourages heightened awareness among workers of their surroundings. See 61 FR 65966. In light of the number of recent roadway worker fatalities, FRA believes additional attention and emphasis needs to be placed on worker protection in both situations cited above.

#### Protection of Workers on Adjacent Tracks

The concept of protecting roadway workers from the hazards of trains and other on-track equipment on adjacent tracks is an important element of the roadway worker rule. Section 214.335(c) of the rule requires that roadway work groups engaged in large-scale maintenance or construction be provided with train-approach warning for movements on adjacent tracks that are not included within working limits. As noted in the preamble of the rule, "this [P]aragraph c . . . details the conditions under which train approach warning must be used on adjacent tracks that are not within work limits. These are conditions in which the risk of distraction is significant, and which require measures to provide on-track safety on adjacent track." See 61 FR 65971. Although "large-scale construction or maintenance" is not specifically defined in the regulation, FRA quoted approvingly from a recommendation issued by the Federal Roadway Worker Advisory Committee. That committee described large-scale activities as those including "track maintenance and/or renovation, such as but not limited to, rail and tie gangs, production in-track welding, ballast distribution, and undercutting." See 61 FR 655971.

Although FRA focused on "large-scale" activities as those that can be distracting to the roadway worker, other activities that are not necessarily "large-scale," also may have the potential to be distracting. Maintenance-of-way work has become increasingly mechanized--inspection, light maintenance, or emergency repairs are often accomplished by work crews consisting of a small number of individuals. Such activities where workers are preoccupied, distracted by noise, or drawn away from the zone of protection by their project-related duties may make it more likely that roadway workers and roadway maintenance machines will foul the adjacent track and possibly be struck by approaching or passing trains.

The difficulty in determining when certain types of work should be classified as "large-scale" and the concern for potentially unsafe small-scale activities has prompted rail labor to request a regulation change mandating on-track safety for all roadway work groups on adjacent track, regardless of the scope of the work. Although FRA has decided not to pursue a regulation change at this time, FRA believes it may be prudent for railroads and contractors to evaluate, on a case-by-case basis, whether work has the potential to foul or intrude on the adjacent track and consider protecting such work, even when the work would not be considered "large-scale."

#### On-Track Safety on Adjacent Track

The roadway worker rule established requirements addressing on-track safety on adjacent track. A brief review of such existing requirements follows. Roadway work groups can utilize train-approach warning (Sec. 214.329) and working limits (Sec. 214.319). When using train-approach warning, the watchman/lookout "shall be provided by the employer with the equipment necessary for compliance with the on-track safety duties which the watchman/lookout will perform." (Sec. 214.329(g)). Watchmen/lookouts shall be properly equipped to provide visual and auditory warning such as whistle, air horn, white disk, red flag, lantern, fusee (Sec. 214.7). This section further imposes a duty upon the employer to provide the watchman/lookout employee with the requisite equipment necessary to carry out his on-track safety duties.

When using working limits, the roadway worker in charge of the working limits has the authority to actually direct train movement on the adjacent track. For controlled track, trains or on-track equipment can only move through the working limits at restricted speed or a speed

determined suitable for the situation by the roadway worker in charge (Sec. 214.321(d)). For non-controlled track, trains and on-track equipment may only move at restricted speed (Sec. 214.327). If working limits are established for an adjacent track, it is important to consider the risks that remain when trains are permitted to pass through. Any maintenance or construction activity that has the potential to intrude onto the track must cease before trains are permitted to pass through working limits on adjacent track. Otherwise, any work that may cause an employee to foul the adjacent track would be unprotected. Based on the foregoing, railroads should have detailed procedures for directing trains through adjacent working limits, including a requirement mandating that further activity will not cause workers or equipment to foul the adjacent track. However, train-approach warning must be provided if further work is performed that may result in workers intruding into an adjacent track after a train is directed through.

### Inadvertent Fouling

The concept of not fouling the track unless necessary for the performance of duties is a core element of the regulation. This concept has been codified in Sec. 214.313, which addresses the responsibility of individual roadway workers and imposes specific requirements on individual roadway workers. It is imperative that roadway workers comply with Sec. 214.313 and refrain from purposefully encroaching on the fouling space, unless absolutely necessary to perform their duties. Compliance with this requirement prohibits walking in the fouling space after work is complete and requires that roadway workers remain alert at all times. As long as roadway workers are moving about the right-of-way under traffic (even if their work has been completed), there is a continuous risk of being struck by a train or maintenance-of-way equipment. We note that this section also imposes on each roadway worker the responsibility to ascertain that on-track safety is being provided before fouling a track, and provides the worker with the right to refuse any directive to violate an on-track safety rule.

A second critically important concept involves lone workers using individual train detection as their method of on-track safety. Individual train detection is only appropriate in limited circumstances, as outlined in Sec. 214.337. It is not an appropriate form of on-track safety where there is a risk of distraction that may prevent the lone worker from being in a heightened state of awareness. Workers are more likely to inadvertently step into the fouling space when they are engrossed in their duties or are using individual train detection in locations that are inappropriate due to the geography or current physical conditions.

FRA believes that the focus on heightened awareness appears to have deteriorated, causing increased occurrences of inadvertent and careless fouling of the track. As noted above, FRA's fatality data attribute six fatalities in the past seven years to roadway workers mistakenly stepping into the fouling space, directly into the path of a train.

FRA realizes that throughout the course of a workday, roadway workers need to cross tracks and do so safely, since even tracks protected by a form of on-track safety can be dangerous. However, the roadway worker rule clearly prohibits unnecessary fouling and, by emphasizing roadway worker awareness, attempted to prevent careless and inadvertent encroachment of the fouling space.

To further enhance safety, it is suggested that railroads and contractors to railroads install and utilize, as appropriate, rotation stops on roadway maintenance machines to prevent equipment from inadvertently fouling adjacent tracks.

### Recommended Action

It is important to note that, like many FRA railroad safety standards, the roadway worker regulation merely prescribes minimum standards. Railroads and railroad contractors are free to prescribe additional or more-stringent standards consistent with the rule. (Sec. 214.301(b)).

FRA recommends that railroads and contractors to railroads develop and implement basic risk assessment procedures for use by roadway workers to determine the likelihood of adjacent track intrusion prior to initiating work activities (whether large-scale or small-scale activities). For example, if the work can be conducted by individuals positioned between the rails of a protected track, they would not foul an adjacent track. Likewise, light work where there is a structure between the tracks to prevent intrusion might be safely conducted without adjacent track protection. Examples would include a fence between the tracks at a passenger train station and the tall beam of a through-plate girder bridge.

Work that requires employees to be on the field side of the protected track toward an adjacent track would have a much greater likelihood to foul that adjacent track. Under these circumstances, it is necessary to consider the nature of the work and the track-center distance. While the roadway worker regulation specifies a 25-foot center that triggers mandatory adjacent track protection for large-scale work, this number can serve as a guide when conducting a risk assessment for activities with minimal intrusion potential. For example, when a small crew is working and the activity requires an employee to be in a position between the tracks, it would be wise to determine which particular track-center distance would be safe. This determination will help to ensure that the adjacent track would not be fouled if a worker were to inadvertently trip and fall. Other risk factors to consider would be the nature of the work (inspection or repair), sight distances, and the speed of trains on the adjacent track. Upon completion of an on-site risk assessment, the on-track safety briefing required by Sec. 214.315(a) is perhaps the ideal instrument to implement preventive measures concerning adjacent tracks.

In addition to the above recommendation concerning basic risk assessment, FRA is recommending that railroads and contractors to railroads consider taking the following actions:

- Use of working limits for activities where equipment could foul adjacent track (whether large-scale or small-scale activities);
- Use rotation stops to mitigate the dangers associated with on-track equipment and trains passing on adjacent tracks;
- Review procedures for directing trains through adjacent track working limits, and enhance such procedures when necessary;
- Install adjacent track warning signs/devices in the operating cab of on-track machines to remind roadway maintenance machine operators to not inadvertently depart the equipment onto a track where there may be trains and other on-track equipment passing;
- Provide additional training and monitoring to its employees, emphasizing the need to cross tracks in a safe manner (i.e., single file and after looking in both directions);
- Reinforce to individual roadway workers that it is critical not to foul a track except in the performance of duty and only when on-track safety has been established. This training could be accomplished through training sessions, as well as daily job briefings; and
- Institute peer-intervention measures by which workers are encouraged to intervene when observing another roadway worker engaging in potentially noncompliant and unsafe activity.

Railroads are also reminded that it is necessary to provide appropriate warning equipment to watchmen/lookouts to enable them to effectively warn of approaching trains. Such equipment includes whistles, air horns, white disks, red flags, lanterns, and fusees (Sec. 214.7).

Issued in Washington, DC, on April 27, 2004.  
Grady Cothen,  
Acting Associate Administrator for Safety.

[FR Doc. 04-9952 Filed 4-30-04; 8:45 am]

BILLING CODE 4910-06-P