

U.S. Department
of Transportation
Federal Railroad
Administration

Date: April 3, 2008

Reply to Attn of: Technical Bulletin G-08-03

Subject: Roadway Worker Protection

Original Signed By:

From: Edward Pritchard

Director, Office of Safety Assurance and Compliance

To: Regional Administrators for Distribution

RRS-1, RRS-2, RRS-3, RRS-10, RRS-11, RRS-20, Ted Bundy

This Technical Bulletin supersedes Technical Bulletin G-07-02, issued August 13, 2007. Upon additional review, the Federal Railroad Administration (FRA) determined it could improve the document by better explaining the issues it intended to address, the existing regulatory requirements, and the practical application of the regulation. Although this amended version does not conflict with the earlier version of the Technical Bulletin, FRA believes that an amended version is necessary to address any potential ambiguities contained in the earlier version.

I. Introduction

FRA issued the Technical Bulletin (and this amended version) to explain when compliance with the Roadway Worker Protection (RWP) regulation (49 CFR, Part 214, Subpart C) is required in a locomotive servicing track area and a car shop repair track area. Locomotive servicing track area means one or more tracks, within an area in which the testing, servicing, repair, inspection, or rebuilding of locomotives is under the exclusive control of mechanical department personnel. Car shop repair track area means one or more tracks within an area in which the testing, servicing, repair, inspection, or rebuilding of railroad rolling equipment is under the exclusive control of mechanical department personnel. FRA is concerned that there may be a tendency by employers and employees to overlook the RWP regulation's requirements in both locomotive servicing track areas and car shop repair track areas because employees working in those areas may be perceived to already be protected by another Federal regulation referred to as the Blue Signal Protection (BSP) regulation (49 CFR, Part 218, Subpart B).

The tendency for an employer or employee to overlook the RWP requirements in either a locomotive servicing track area or car shop repair track area is likely when the person does not understand the different purposes of the RWP and BSP rules. The purpose of the RWP regulation is to protect workers whose duties include inspection, construction, maintenance or repair of railroad track, bridges, roadway, signal and communication systems, electric traction systems, roadway facilities or roadway maintenance machinery on or near track or with the

potential of fouling a track, as well as flagmen and watchmen/lookout duties. In contrast, the purpose of the BSP regulation is to protect workers engaged in the inspection, testing, repair, and servicing of rolling equipment. In general, RWP is to employees working on or about track what BSP is to employees working on, under, or between rolling equipment.

In this Technical Bulletin, FRA summarizes the fundamental requirements of each of these two sets of worker protection rules to remind employers and employees of the regulatory requirements. Under the section titled “Locomotive Servicing Track Area and Car Shop Repair Track Area Considerations,” FRA describes situations in those areas where the two types of protection may overlap and clarifies what is required by the regulation and FRA’s enforcement policy. FRA notes that it is not the intent of this Technical Bulletin to cover every situation. Any person subject to these Federal regulations must carefully consider each task to be undertaken. See § 214.5 and § 218.9 (defining “person”). Further, it is not the intent of this Technical Bulletin to provide a comprehensive overview of either the RWP or BSP regulations.

II. Overview of the Regulatory Requirements

A. Roadway Worker Protection (49 CFR, Part 214, Subpart C)

The purpose of this Subpart is to prevent accidents and casualties caused by moving railroad cars, locomotives, or roadway maintenance machines striking roadway workers or roadway maintenance machines. See § 214.301. As defined under § 214.7, a roadway worker is any employee of a railroad, or of a contractor to a railroad, whose duties include inspection, construction, maintenance, or repair of railroad track, bridges, roadway, signal and communication systems, electric traction systems, roadway facilities¹ or roadway maintenance machinery on or near track or with the potential of fouling a track,² and flagmen and watchmen/lookouts as defined in this section. The operating procedures prescribed under the RWP regulation, otherwise known as on-track safety,³ protects roadway workers from the dangers of moving trains and roadway maintenance machines.

For shop areas, in which the vast majority of track is non-controlled,⁴ on-track safety is generally limited to the following methodologies:

- Inaccessible track - A method of establishing working limits on non-controlled track by physically preventing entry and movement of trains and equipment. For a roadway work group, this is the more practical and widely-used method to provide on-track safety. See § 214.327.

¹ FRA considers both a locomotive servicing track area and a car shop repair track area to be roadway facilities.

² *Fouling a track* means the placement of an individual or an item of equipment in such proximity to a track that the individual or equipment could be struck by a moving train or on-track equipment, or in any case is within four feet of the field side of the near running rail. § 214.7.

³ *On-track safety* means a state of freedom from the danger of being struck by a moving railroad train or other railroad equipment, provided by operating and safety rules that govern track occupancy by personnel, trains, and on-track equipment. § 214.7.

⁴ *Non-controlled track* means track upon which trains are permitted by railroad rule or special instruction to move without receiving authorization from a train dispatcher or control operator. § 214.7.

- Train approach warning - A method of establishing on-track safety by warning roadway workers of the approach of trains in ample time for them to move to or remain in a previously arranged place of safety in accordance with the requirements of this Part. A watchman/lookout must provide sufficient warning (visual and auditory) to enable the workers to be clear of the track 15 seconds before the arrival of trains or on-track equipment. See §§ 214.329, 214.7 (defining watchman/lookout).
- Individual train detection - A procedure by which a lone worker acquires on-track safety by visually detecting approaching trains and leaving the track at least 15 seconds before they arrive. This method may be used only under strictly defined circumstances.⁵ See § 214.337.

For a shop in close proximity to a controlled track (e.g., main track), employees engaged in maintenance/construction of the exterior of the facility would also need to consider working limits for such tracks (e.g., exclusive track occupancy, foul time, or train coordination, as applicable).⁶ See §§ 214.321, 214.323, and 214.325.

In addition to the on-track safety methodologies outlined above, railroads and contractors to railroads must comply with the following RWP requirements:

- On-track safety manual - Rules and operating procedures governing track occupancy and protection shall be maintained together in one manual and be readily available to all roadway workers. Each roadway worker responsible for the on-track safety of others, and each lone worker, shall be provided with and shall maintain a copy of the program document. See § 214.309.
- Good faith challenge - Each employer shall guarantee each employee the absolute right to challenge in good faith whether the on-track safety procedures to be applied at the job location comply with the rules of the operating railroad, and to remain clear of the track until the challenge is resolved. See § 214.311(b).
- On-track safety briefing - Each employer shall provide the employee with a job briefing that includes information on the means by which on-track safety is to be provided, and instruction on the on-track safety procedures to be followed. See § 214.315(a).
- Roadway worker in charge - Every roadway work group whose duties require fouling a track shall have one roadway worker designated by the employer to provide on-

⁵ For example, a lone worker is not permitted to use individual train detection if his ability to hear and see approaching trains and other on-track equipment is impaired by background noise, lights, precipitation, fog, passing trains, or any other physical conditions. See § 214.337(c)(6).

⁶ Meanwhile, if the location does not involve any possibility that the work would foul a controlled track, the roadway worker in charge would only need to be qualified on the applicable methodologies for establishing on-track safety on non-controlled track. Thus, if an individual's duties are limited so that the individual would never encounter controlled track, the individual must still, at a minimum, be qualified to establish inaccessible track, but would not be required to know how to establish exclusive track occupancy (§ 214.321) or other forms of on-track safety that are only applicable to controlled track.

track safety for all members of the group. The responsible person may be designated generally, or specifically for a particular work situation. See § 214.315(c).

- Roadway maintenance machines - Each employer shall include in its on-track safety program specific provisions for the safety of roadway workers who operate or work near roadway maintenance machines. See § 214.341.
- Training and qualification - Each employer shall provide to all roadway workers in its employ initial or recurrent training once every calendar year on the on-track safety rules and procedures that they are required to follow. See §§ 214.343 and 214.345. Additional training and qualification may be necessary, depending on the duties assigned. See §§ 214.347, 214.349, 214.351, 214.353, and 214.355.

B. Blue Signal Protection of Workers (49 CFR, Part 218, Subpart B)

This Subpart prescribes minimum requirements for the protection of railroad employees engaged in the inspection, testing, repair, and servicing of rolling equipment whose activities require them to work on, under, or between such equipment and subjects them to the danger of personal injury posed by any movement of such equipment. See § 218.21. The requirements for BSP in a locomotive servicing track area or a car shop repair track area depend on whether the protection chosen is for an individual track (see § 218.27, establishing blue signal protection on other than main tracks), or a locomotive servicing track area or car shop repair area as a whole (see § 218.29(a) and (b), respectively).

If the protection chosen is for an individual track, § 218.27 requires that (a) a blue signal be displayed at each manually operated switch providing access; (b) such switches be lined and locked against movement to the track on which the rolling equipment is located; (c) if there are any remotely controlled switches, that the operator be informed to line and lock it in accordance with § 218.30; (d) both switches of a crossover must be lined and locked away from the movement; and, (e) if a controlling locomotive needs to be protected, a blue signal must be attached where it is readily visible to the engineman or operator at the controls of that locomotive.

One of the requirements for establishing BSP for an individual track (§ 218.27(e)) is the same as a requirement for establishing BSP in a locomotive servicing track area. That is, if a controlling locomotive needs to be protected in a locomotive servicing track area, a blue signal must be attached where it is readily visible to the engineman or operator at the controls of that locomotive as it would when establishing BSP for an individual track. § 218.29(a)(3).

Two other requirements for establishing BSP for an individual track are parallel to the requirements for establishing BSP in both locomotive servicing track and car shop repair track areas, with the obvious difference that the protection must be applied at the access point(s) to the particular area as opposed to the access point(s) to a particular track. Thus, when providing protection to either type of area (or track):

- A blue signal must be displayed at or near each switch providing entrance to or departure from the area [or track]. See § 218.29(a)(1) and (b)(1); see also 218.27(a); and
- Each switch providing entrance to or departure from the area [or track] must be lined against movement to the area [or track] and locked with an effective locking device (see § 218.29(a)(2) and (b)(2); see also 218.27(b)) or a derail capable of restricting access may be substituted under certain conditions (see § 218.29(a)(4), (b)(3), and (c)).

Meanwhile, workers in a locomotive servicing track area or a car shop repair track area are more likely to choose to comply with the requirements for establishing BSP in an area, rather than on an individual track, because a worker establishing BSP in an area will have greater flexibility to quickly and safely move rolling equipment within these areas than the worker would have otherwise. See § 218.29(a)(7) and (b)(4). Under the requirements for both areas, the rolling equipment cannot be moved until workers on the affected track have been notified of the intended movement. Establishing BSP in a locomotive servicing track area also provides workers the flexibility to quickly and safely move locomotives onto and off of the area track. See § 218.29(a)(5) and (a)(6).

The regulation also provides for an alternate method of protection on other than main tracks when emergency repair work is to be done on, under, or between a locomotive or one or more cars are coupled to a locomotive, and blue signals are not available. It simply requires that the engineman or operator at the controls of that locomotive must be notified and effective measures must be taken to protect the workers making the repairs. See § 218.29(d).

III. Locomotive Servicing Track Area and Car Shop Repair Track Area Considerations

As explained in the introduction, FRA has noticed that some employers and employees have overlooked the RWP regulation's requirements in locomotive servicing track areas and car shop repair track areas. In those instances, workers following the BSP regulation's requirements often assumed that as long as either BSP or RWP was being provided, they were in full compliance with Federal regulations; however, this is not always a correct assumption. Each type of protection is required under different circumstances. To reiterate, RWP is generally required for employees working on or near track (i.e., typically maintenance-of-way employees or other engineering employees performing roadway worker duties) while BSP is generally required for employees working on rolling equipment (i.e., typically mechanical and repair shop employees). Whether or not the employees are working in a locomotive servicing track area or car shop repair track area is irrelevant as to whether RWP or BSP applies; rather, one must consider the type of work being performed.

A. Considerations for Roadway Workers

When an employee performs any of the roadway worker duties within a locomotive servicing track area or car shop repair track area, such work activity must be conducted under a form of on-track safety as provided in Part 214, regardless of whether that employee is generally classified as an engineering employee or a mechanical employee. The Federal regulations do not permit any employee conducting roadway worker duties to rely on BSP that was actually

established for a different set of workers and duties, *i.e.*, employees, typically mechanical employees, working on, under, or between rolling equipment. BSP is intended to establish protection for employees repairing rolling stock, not employees performing roadway worker duties. An employee who, without first establishing RWP, performs a roadway worker activity on a track that is already under BSP is vulnerable to having the protection lifted by the employee who established the BSP without consideration for the roadway worker's safety.

The following is a list of a few examples where the establishment of on-track safety through one of the various methods is required under the RWP regulation if any aspect of the work will be on or near track or with the potential of fouling a track:

- Maintenance work on a power-operated shop door.
- Troubleshooting/maintenance of the electrical parts of a permanently-installed, power-operated, blue signal derail.
- General building maintenance or construction of a shop building.

Rendering a track inaccessible (see § 214.327) is the more practical and widely-used method to provide on-track safety for roadway workers performing duties on non-controlled track. Under such a circumstance, each railroad or employer of roadway workers should establish procedures that address how to safely implement the provisions of inaccessible track when the track is already protected by BSP. For example, it may help to establish procedures regarding the RWP requirement that any operable locomotives or other items of on-track equipment within the inaccessible track working limits be under the control of the roadway worker in charge of the working limits. See § 214.327(c). Establishing firm procedures for coordination of activities between the roadway worker in charge and the employee in charge of the BSP would help avoid any confusion in a situation where both types of work are being conducted. These procedures could be similar in nature to any existing procedures relating to the coordination of activities between a roadway worker and a control operator regarding the securing of remotely controlled switches and establishing working limits. See § 214.327(a)(5). Mechanical and repair shop employees need to be made aware that when roadway worker duties are being performed within the repair area, they do not have the same freedom to move rolling equipment into, within, or out of the area as they normally enjoy under the BSP regulation. See § 218.29(a)(5) through (7), (b)(4) and (b)(6). To do otherwise would put the safety of roadway workers at risk.

It may also help to establish procedures regarding the situation in which an employee performing roadway worker duties within a locomotive servicing track area or car shop repair track area finds that switches and derails are already aligned to prevent access to the working limits and secured with an effective securing device when attempting to establish RWP. In such a situation, the roadway worker would be risking serious injury or death if he were to proceed with his duties without first taking any steps to distinguish the protection created under the RWP regulation from the protection created under the BSP regulation because a mechanical or repair shop employee might unlock and align the switch to provide a train access to the working limits and thereby defeat the very protection on which the roadway worker relied. Adopting procedures that establish an effective RWP-specific securing device on the derail or switch would address this potential problem:

- For example, for a switch secured with a blue signal padlock, the roadway worker may choose to spike the same switch and place a roadway worker-specific tag on the switch handle.
- Another example of an acceptable procedure would be to use a special interlock-type device that accepts two padlocks and prevents the derail or switch from being manipulated without the removal of both locks.

B. Considerations for Mechanical or Repair Employees

The RWP regulation requires protection for roadway workers and defines roadway workers by the type of work to be completed, not by the title or craft of the employee. Thus, there may be instances where a mechanical or repair shop employee is assigned to specifically perform one of the work activities used in the definition of “roadway worker.” See § 214.7. Except as noted below, a mechanical or repair shop employee engaged in a roadway worker activity is required to conduct that activity under a form of on-track safety as provided for in the RWP regulation.

The BSP regulation is required for the protection of railroad employees engaged in the inspection, testing, repair, and servicing of rolling equipment. However, FRA would not take exception to a mechanical employee working around rolling stock and performing “incidental” roadway worker duties as a part of that larger mechanical or repair shop based activity on a track that is under BSP established by that employee. Thus, although sweeping a shop floor or changing a light bulb in an inspection pit are arguably roadway worker duties, when a mechanical or repair shop employee has properly implemented BSP and the employee has a need to perform such duties in order to complete the larger job of servicing the rolling equipment, FRA will not consider such duties to be in non-compliance with the RWP regulation because the work is of an “incidental” nature to the larger job.

C. Considerations for Both Roadway Workers and Mechanical or Repair Shop Employees

It is also important to note that regardless of who supervises an employee, the appropriate form of protection must be utilized. For example, if an employee works under the supervision of a mechanical department manager and that employee performs any of the work defined under the RWP regulation, on-track safety is required. Likewise, if an engineering department manager supervises an employee and that employee performs maintenance on rolling stock, such work must be protected under the provisions of the BSP regulation.

This bulletin is based on consultation with FRA’s Office of Chief Counsel. Anyone desiring a formal legal interpretation on any issues discussed in this bulletin should contact that office.