DEPARTMENT OF TRANSPORTATION

Federal Railroad Administration

49 CFR Parts 217 and 218

[Docket No. FRA–2006–25267]

RIN 2130–AB76

Railroad Operating Rules: Program of Operational Tests and Inspections; Railroad Operating Practices: Handling Equipment, Switches and Derails

AGENCY: Federal Railroad Administration (FRA), DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: Human factors are the leading cause of train accidents, accounting for 38 percent of the total in 2005. Human factors also contribute to employee injuries. The proposed rule would establish greater accountability on the part of railroad management for administration of railroad programs of operational tests and inspections, and greater accountability on the part of railroad supervisors and employees for compliance with those railroad operating rules that are responsible for approximately half of the train accidents related to human factors. Furthermore, this rulemaking is intended to supplant the need for Emergency Order 24, which requires special handling, instruction and testing of railroad operating rules pertaining to hand-operated main track switches in non-signaled territory.

DATES: Written comments must be received by December 11, 2006. Comments received after that date will be considered to the extent possible without incurring additional expense or delay.

FRA anticipates being able to resolve this rulemaking without a public, oral hearing. However, if FRA receives a specific request for a public, oral hearing prior to November 13, 2006, one will be scheduled and FRA will publish a supplemental notice in the **Federal Register** to inform interested parties of the date, time, and location of any such hearing.

ADDRESSES: *Comments:* Comments related to Docket No. FRA 2006–25267, may be submitted by any of the following methods:

- *Web site: http://dms.dot.gov*. Follow the instructions for submitting comments on the DOT electronic docket site.
- *Fax:* 202–493–2251.
- *Mail:* Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL–401, Washington, DC 20590–001.
- *Hand Delivery:* Room PL–401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC between 9 a.m. and 5 p.m. Monday through Friday, except Federal holidays.
- *Federal eRulemaking Portal:* Go to *http://www.regulations.gov*. Follow the online instructions for submitting comments.

Instructions: All submissions must include the agency name and docket number or Regulatory Identification Number (RIN) for this rulemaking. Note that all comments received will be posted without change to *http://dms.dot.gov* including any personal information. Please see the Privacy Act heading in the **SUPPLEMENTARY INFORMATION** section of this document for Privacy Act information related to any submitted comments or materials.

Docket: For access to the docket to read background documents or comments received, go to *http://dms.dot.gov* at any time or to PL–401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC between 9 a.m. and 5 p.m. Monday through Friday, except Federal Holidays.

FOR FURTHER INFORMATION CONTACT: Douglas H. Taylor, Staff Director, Operating Practices Division, Office of Safety Assurance and Compliance, FRA, 1120 Vermont Avenue, NW., RRS–11, Mail Stop 25, Washington, DC 20590 (telephone 202–493–6255); or Alan H. Nagler, Senior Trial Attorney, Office of Chief Counsel, FRA, 1120 Vermont Avenue, NW., RCC–11, Mail Stop 10, Washington, DC 20590 (telephone 202–493–6038).

SUPPLEMENTARY INFORMATION:

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I. Background and Authority

The Federal Railroad Safety Act of 1970, as codified at 49 U.S.C. 20103, provides that, ''[t]he Secretary of Transportation, as necessary, shall prescribe regulations and issue orders for every area of railroad safety supplementing laws and regulations in effect on October 16, 1970''. The Secretary's responsibility under this provision and the balance of the railroad safety laws have been delegated to the Federal Railroad Administrator. 49 CFR 1.49(m). In the field of operating rules and practices, FRA has traditionally pursued a very conservative course of regulation, relying upon the industry to implement suitable railroad operating rules and mandating in the broadest of ways that employees be ''instructed'' in their requirements and that railroads create and administer programs of operational tests and inspections to verify rules compliance. This approach was based on several factors, including a recognition of the strong interest the railroads have in avoiding costly accidents and personal injuries, the limited resources available to FRA to directly enforce railroad operating rules, and the apparent success of management and employees in accomplishing most work in a safe manner.

Over the years, however, it became necessary to ''Federalize'' certain requirements, either to remedy perceived shortcomings in the railroads' rules or to emphasize the importance of compliance and to provide FRA a more direct means of promoting compliance. These actions, which in most cases were preceded or followed by statutory mandates, included adoption of rules governing—

- Blue Signal Protection for employees working on, under or between railroad rolling stock (49 CFR part 218, subpart B);
- Railroad Communications (49 CFR part 220);
- Prohibition of Tampering with Safety Devices (49 CFR part 218, subpart D); and
- Control of Alcohol and Drug Use in Railroad Operations (49 CFR part 219);

In addition, FRA has adopted requirements for Qualification and Certification of Locomotive Engineers (49 CFR part 240) that directly prohibit contravention of certain specified operating rules and practices.

FRA believes these programs of regulation contribute positively to railroad safety, in part because they contribute significantly to good discipline among affected employees.

FRA is not specifically required by statute to issue a regulation on the subjects covered by this proposed rule. However, FRA believes that establishing greater accountability for implementation of sound operating rules is necessary for safety. FRA is initiating this rulemaking because it has recognized that human factor train accidents comprise the largest single category of train accident causes and because existing regulations have proven inadequate to achieve a significant further reduction in their numbers or severity. Moreover, the current situation in the railroad industry, which is characterized by strong market demand, extensive hiring of new employees, and rapid attrition of older employees now becoming eligible for retirement, demands a more substantial framework of regulations to help ensure that operational necessity will not overwhelm systems of safeguards relied upon to maintain good discipline.

The theme of this proposed rule is accountability. It embodies both a broad strategy intended to promote better administration of railroad programs, on the one hand, and a highly targeted strategy designed to improve compliance with railroad operating rules addressing three critical subject matters, on the other. Within this framework, FRA would take responsibility to set out certain requirements heretofore left to private action and for monitoring compliance with those requirements through appropriate inspections and audits. Railroad management would be more accountable for putting in place appropriate rules, instructions, and programs of operational tests. Railroad supervisors would be accountable for doing their part to administer operational tests and establish appropriate expectations with respect to rules compliance. Railroad employees would be accountable for complying with specified operating rules, and they would enjoy a right of challenge should they be instructed to take actions that, in good faith, they believe would violate the rules. It is intended that this framework of accountability promote good discipline, prevent train accidents, and reduce serious injuries to railroad employees.

In this **SUPPLEMENTARY INFORMATION** section, FRA provides a detailed explanation of the growing number of accidents, the severity of some of those accidents, the agency's prior actions, the approach proposed and some discussion of alternatives. In certain instances, FRA specifically requests commenters to offer suggestions or provide information for FRA's consideration prior to a final rule. Of course, FRA would appreciate comments on any aspect of this proposed rule.

II. Proceedings to Date

A. Increase in Human Factor Caused Accidents and Non-compliance

FRA has grown steadily more concerned over the past few years as the frequency of human factor caused accidents has increased. When these accidents are reported, the reporting railroad is required to cite the causes of the accident. In the case of a human factor caused accident, an employee or employees are typically associated with a failure to abide by one or more railroad operating rules. Over the past few years, FRA inspectors have simultaneously observed a substantial increase in non-compliance with those railroad operating rules that are frequently cited as the primary or secondary causes to these types of accidents.

Accidents caused by mishandling of equipment, switches and derails rose from 370 to 640 per year from the years 1997 to 2004—an increase of 42 percent. The greatest causes of these accidents as identified by the railroads were (1) switch improperly lined and (2) absence of employee on, at or ahead of a shoving movement. These two issues alone account for over 60 percent of all accidents caused annually by employees mishandling of equipment, switches and derails.

A grouping of four other causes saw steady increases from 133 per year in 1997 to 213 per year in 2004—a cumulative increase of 37 percent; these causes are (1) failure to control a shoving movement, (2) switch previously run through, (3) cars left foul and (4) failure to apply or remove a derail. Two additional causes of accidents, (1) switch not latched or locked and (2) car(s) shoved out and left out of clear, were the cited cause of only 10 accidents in 1997 and 40 accidents in 2004.

While the accident data shows significant increases in these areas, the data collected by FRA during inspections suggests that the number of accidents could easily increase at an even greater rate. FRA inspection data shows that non-compliance related to mishandling of equipment, switches and derails rose from 319 to 2,954 per year from the years 2000 to 2004—a nine-fold increase. The most common areas of human factor non-compliance were (1) employee failed to observe switch points for obstruction before throwing switch; (2) employee failed to ensure all switches involved with a movement were properly lined; (3) employee failed to ensure switches were latched or locked; (4) employee failed to ensure switches were properly lined before movement began; and (5) employee left equipment fouling adjacent track.

Several other related issues of non-compliance also saw substantial increases, although the overall number of incidents found by FRA was lower than the top five. These additional areas of non-compliance are: (1) Employee left derail improperly lined (on or off); (2) absence of employee on, at, or ahead of shoving movement; (3) employee failed to ensure train or engine was stopped in the clear; (4) employee failed to ensure switches were properly lined after being used; (5) employee failed to reapply hasp before making move over switch (if equipped); (6) employee failed to relock the switch after use; and (7) one or more employees failed to position themselves so that they could constantly look in the direction of movement.

Some non-compliance data applies particularly to human factor mistakes FRA noted during inspections of operations involving remotely controlled locomotives. FRA assigned non-compliance codes to identify the following problems specifically associated with these remote control operations: (1) Employee operated equipment while out of operator's range of vision; (2) employee failed to provide point protection, locomotive leading; and (3) employee failed to provide point protection, car leading. In 2004, the first year that FRA collected data under those codes, FRA inspectors recorded 29 instances of non-compliance with the railroad's operating rules underlying the three codes. In 2005, the number of instances of non-compliance with those same codes recorded by FRA inspectors increased to 92.

B. Accident at Graniteville, SC and Safety Advisory 2005–01

Although the increasing number of human factor caused accidents impacted the railroad industry and its employees, a catastrophic accident that occurred at Graniteville, South Carolina on January 6, 2005, catapulted the issue into the national spotlight. As the National Transportation Safety Board (NTSB) described in its report NTSB/RAR–05/04, PB2005–916304 (Nov. 29, 2005), that accident occurred when Norfolk Southern Railway Company

(NS) freight train 192, while traveling in non-signaled territory at about 47 miles per hour (mph), encountered an improperly lined switch that diverted the train from the main track onto an industry track, where it struck an unoccupied, parked train (NS train P22). The collision derailed both locomotives and 16 of the 42 freight cars of train 192, as well as the locomotive and 1 of the 2 cars of train P22. Among the derailed cars from train 192 were three tank cars containing chlorine, one of which was breached, releasing chlorine gas. The train engineer and eight other people died as a result of chlorine gas inhalation. About 554 people complaining of respiratory difficulties were taken to local hospitals. Of these, 75 were admitted for treatment. Because of the chlorine release, about 5,400 people within a 1-mile radius of the derailment site were evacuated for several days. Total property damages exceeded $6.9 million. The total monetized damages were much higher than that, with one estimate ranging as high as $125 million. NTSB determined that the probable cause of the collision was the failure of the crew of NS train P22 to return a main track switch to the normal position after the crew completed work at an industry.

The crew's failure violated railroad operating rules but did not violate any Federal requirement. NS Operating Rule 104, in effect at the time, placed primary responsibility with the employee handling the switch and other crewmembers were secondarily responsible if they were in place to observe the switch's position. NTSB/RAR–05/04 at 8. In addition, NTSB concluded that NS rules required a job briefing which ''would likely have included a discussion of the switches and specifically who was responsible for ensuring that they were properly positioned [and that] [h]ad such a briefing taken place, the relining of the switch might not have been overlooked.'' *Id.* at 44. FRA concurs that the lack of intra-crew communication regarding the switch's position was particularly significant at the time the crew was preparing to leave the site. *Id.* at 8–9.

Four days after the Graniteville accident (and coincidentally, two days after a similar accident at Bieber, California with serious, but not catastrophic consequences), FRA responded by issuing Safety Advisory 2005–01, ''Position of Switches in Non-Signaled Territory.'' 70 FR 2455 (Jan. 10, 2005). The issuance of a safety advisory is an opportunity for the agency to inform the industry and the general public regarding a safety issue, to articulate agency policy, and to make recommendations. FRA explained in the safety advisory that ''[a] review of FRA's accident/incident data shows that, overall, the safety of rail transportation continues to improve. However, FRA has particular concern that recent accidents on Class I railroads in non-signaled territory were caused, or apparently caused, by the failure of railroad employees to return manual (hand-operated) main track switches to their normal position, i.e., usually lined for the main track, after use. As a result, rather than continuing their intended movement on the main track, trains approaching these switches in a facing-point direction were unexpectedly diverted from the main track onto the diverging route, and consequently derailed.''

Safety Advisory 2005–1 strongly urged all railroads to immediately adopt and comply with five recommendations that were intended to strengthen, clarify and re-emphasize railroad operating rules so as to ensure that all main track switches are returned to their normal position after use. The recommendations emphasized communication both with the dispatcher and other crewmembers. FRA recommended that crewmembers complete and sign a railroad-created Switch Position Awareness Form (SPAF). Proper completion of a SPAF was expected to trigger specific communication relevant to critical elements of the tasks to be performed. Additional training and railroad oversight were also recommended.

C. Emergency Order No. 24

Safety Advisory 2005–1 did not have the long-term effect that FRA hoped it would. The Safety Advisory was intended to allow the industry itself a chance to clamp down on the frequency and severity of one subset of human factor accidents, i.e., those accidents involving hand-operated main track switches in non-signaled territory. FRA credits the Safety Advisory with contributing to a nearly six-month respite from this type of accident, from January 12 through July 6, 2005, but following this respite there was a sharp increase in serious accidents.

Three serious accidents over a 28-day period were the catalyst for FRA issuing an emergency order: Emergency Order No. 24 (EO 24); Docket No. FRA–2005–22796, Notice 1, 70 FR 61496, 61498 (Oct. 24, 2005). The three accidents cited in EO 24 resulted in fatal injuries to one railroad employee, non-fatal injuries to eight railroad employees, an evacuation of civilians, and railroad property damage of approximately two million dollars. Furthermore, each of these accidents could have been far worse, as each had the potential for additional deaths, injuries, property damage or environmental damage. Two of the accidents could have involved catastrophic releases of hazardous materials as these materials were present in at least one of the train consists that collided.

FRA is authorized to issue emergency orders where an unsafe condition or practice ''causes an emergency situation involving a hazard of death or personal injury.'' 49 U.S.C. 20104. These orders may immediately impose ''restrictions and prohibitions * * * that may be necessary to abate the situation.'' *Id.*

EO 24 was necessary because FRA could not secure compliance with these important railroad operating rules without additional action. FRA considered issuing another Safety Advisory, but that might at best only provide another temporary respite. The issuance of EO 24 was ''intended to accomplish what the Safety Advisory could not: Implement safety practices that will abate the emergency until FRA can complete rulemaking''. 70 FR at 61498. FRA further concluded that ''reliance solely on employee compliance with railroad operating rules related to the operation of hand-operated main track switches in non-signaled territory, without a Federal enforcement mechanism, is inadequate to protect the public safety.'' 70 FR at 61499. Thus, EO 24 supplied FRA with such an enforcement mechanism without the delay that is usually incurred through rulemaking.

EO 24 is built on the foundation of FRA's regulations, at 49 CFR part 217, which requires each railroad to instruct its employees on the meaning and application of its code of operating rules, and to periodically test its employees to determine their level of compliance. With regard to hand-operated switches in non-signaled territory, EO 24 requires that each railroad (1) instruct its employees, (2) allow only qualified employees to operate and verify switches, (3) require employees to confirm switch positions with the dispatcher prior to releasing the limits of a main track authority, (4) develop a Switch Position Awareness Form for employees to complete when operating switches, (5) require employees to conduct job briefings at important intervals, (6) require intra-crew communication of switch positions after a switch is operated, (7) enhance its program of operational tests and inspections under 49 CFR part 217, and (8) distribute copies of EO 24, and retain proof of distribution, to all

employees affected. Minor clarifying amendments were made to EO 24 in a second notice, but the overarching requirements remained unchanged from the first notice. 70 FR 71183 (Nov. 25, 2005).

D. FRA's Action Plan for Addressing Critical Railroad Safety Issues

Prior to the Graniteville accident, FRA had developed and implemented procedures to focus agency resources on critical railroad safety issues. Such procedures were appropriate even though the industry's overall safety record had improved over the last decade and most safety trends were moving in the right direction. FRA recognizes that significant train accidents continue to occur, and the train accident rate has not shown substantive improvement in recent years. Several months after the Graniteville accident, an action plan was published. FRA acknowledged in the plan that ''recent train accidents have highlighted specific issues that need prompt government and industry attention''. Action Plan at 1 (published on FRA's Web site at *http://www.fra.dot.gov/*).

In the plan, FRA introduced its basic principles to address critical railroad safety issues. One basic principle is that FRA's safety program is increasingly guided by careful analysis of accident, inspection, and other safety data. Another basic principle is that FRA attempts to direct both its regulatory and compliance efforts toward those areas involving the highest safety risks. The plan is intended to be proactive in that it will target the most frequent, highest risk causes of accidents.

FRA identified ''reducing human factor accidents'' as one of the major areas in which the agency planned initiatives. In fact, the plan discusses this issue first because it constitutes the largest category of train accidents, accounting for 38 percent of all train accidents over the last five years, and human factor accidents are growing in number. Furthermore, FRA's plan takes aim at reducing human factor accidents because in recent years most of the serious events involving train collisions or derailments resulting in release of hazardous materials, or harm to rail passengers, have been caused by human factors or track problems.

FRA's analysis of train accident data has revealed that a small number of particular kinds of human errors are accounting for an inordinate number of human factor accidents. For example, the eight human factor causes involving mishandling equipment, switches and derails that FRA is addressing in this proposed rule accounted for nearly 48 percent of all human factor accidents in 2004; these eight causes, which resulted in accidents causing over $113 million in damages to railroad property from 2001–2005, can be grouped into three basic areas of railroad operations: (1) Operating switches and derails; (2) leaving equipment out to foul; and, (3) the failure to protect shoving or pushing movements. In addition, FRA allows any railroad to identify the cause of an accident in general terms when the railroad is unsure of exactly which of the more specific human factor cause codes apply. Without in-depth analysis of each accident that was reported by railroads using these generic human factor cause codes, it is impossible to know how many of these accidents should be attributable to mistakes involving the operation of switches and derails, leaving equipment out to foul, or the failure to protect shoving or pushing movements; it is likely, however, that some portion of this additional 2.5 percent of all human factor accidents in 2004 are attributable to mistakes involving these three basic areas of railroad operations. Thus, this proposal is geared to address approximately half of all human factor caused accidents on all classes of track.

Of the 118 human factor causes that are tracked, the leading cause was improperly lined switches, which alone accounted for more than 16 percent of human factor accidents in 2004. The next two leading causes were shoving cars without a person on the front of the movement to monitor conditions ahead, i.e., lack of point protection, and shoving cars with point protection but still resulting in a failure to control the movement; these two shoving-related causes together accounted for 17.6 percent of human factor accidents in 2004. The remaining five causes addressed in this proposed rule account for nearly 14 percent of the total number of accident causes; these causes involve leaving cars in a position that fouls an adjacent track, operating over a switch previously run through, a failure to apply or remove a derail, a failure to latch or lock a switch, and a failure to determine before shoving, that the track is clear ahead of the movement. The two catch-all general causes that might be cited when a railroad believes one or more related causes may apply or is unsure of the exact cause are: (1) other general switching rules and; (2) other train operation/human factors.

The human factor causes that FRA is attempting to address with this proposal are of a type that involve non-compliance with established railroad operating rules related to fundamental railroad operations. In each case, compliance can be objectively and conclusively determined. For example, it can be definitively determined whether switches are properly lined, locked, latched or had been previously run through. It can be determined whether a shoving movement was made without point protection or without the signals or instructions necessary to control the movement. Similarly, it can be determined whether a car is left fouling a track such that it is causing an unsafe operating condition, or whether the track is clear ahead for a shoving movement. Finally, it can also be determined with certainty whether there has been a failure to apply or remove a derail.

The top human factor causes that FRA is choosing not to address with this proposal are already regulated, to some extent, or would be significantly more difficult to regulate. For example, several human factor causes relate to the failure to apply a sufficient number of hand brakes; that issue is already covered by regulation at 49 CFR 232.103(n). Speeding issues, including restricted speed, are regulated to discourage clearly excessive speeding by imposing revocation periods or civil penalties for locomotive engineer violators. 49 CFR 240.117(e)(2) and 240.305(a)(2). Establishing a clear rule for regulating a train handling issue, such as a locomotive engineer's improper use of an independent brake or air brakes to prevent excess buff or slack action, can pose difficulties as train handling is an area where locomotive engineers exercise discretion. 58 FR 18982, 18992 (Apr. 9, 1993) (describing in section-by-section analysis why FRA amended the qualification and certification of locomotive engineer's rule to require revocation only when there is a failure to conduct certain brake tests as opposed to the more general, original requirement to revoke for ''failure to adhere to procedures for the safe use of train or engine brakes''. 56 FR 28228, 28259 (June 19, 1991)). Likewise, the operating conditions related to improper coupling are too numerous to easily address through regulation, and determination of responsibility related to train handling and train make-up involves often complex technical issues that are still subject to study. (*See Safe Placement of Train Cars, Report to the Senate Committee on Science, Commerce and Transportation and the House Committee on Transportation and Infrastructure,* June 2005), published at *http://www.fra.dot.gov*).

Developing close call data. As part of its mission to improve railroad safety,

FRA is sponsoring the Confidential Close Call Reporting System Demonstration Project to demonstrate the effectiveness of a confidential close call reporting system for the railroad industry. ''Close calls'' in this context are unsafe events that do not result in a reportable accident but very well could have. In other industries such as aviation, implementation of close call reporting systems that shield the reporting employee from discipline (and the employer from punitive sanctions levied by the regulator) have contributed to major reductions in accidents. In March of 2005, FRA completed an overarching memorandum of understanding with railroad labor organizations and management to develop pilot programs to document close calls. Participating railroads will be expected to develop corrective actions to address the problems that may be revealed. The aggregate data may prove useful in FRA's decision-making concerning regulatory and other options to promote a reduction in human factor caused accidents. However, the project has not yet produced sufficient data to consider in this proposed rule.

E. Railroad Safety Advisory Committee (RSAC) Overview

In March 1996, FRA established RSAC, which provides a forum for developing consensus recommendations to FRA's Administrator on rulemakings and other safety program issues. The Committee includes representation from all of the agency's major customer groups, including railroads, labor organizations, suppliers and manufacturers, and other interested parties. A list of member groups follows:

American Association of Private Railroad Car Owners (AAPRCO);
American Association of State Highway & Transportation Officials (AASHTO);
American Public Transportation Association (APTA);
American Short Line and Regional Railroad Association (ASLRRA);
American Train Dispatchers Association (ATDA);
Association of American Railroads (AAR);
Association of Railway Museums (ARM);
Association of State Rail Safety Managers (ASRSM);
Brotherhood of Locomotive Engineers and Trainmen (BLET);
Brotherhood of Maintenance of Way Employees Division (BMWED);
Brotherhood of Railroad Signalmen (BRS);
Federal Transit Administration (FTA)*;
High Speed Ground Transportation Association (HSGTA);
International Association of Machinists and Aerospace Workers;
International Brotherhood of Electrical Workers (IBEW);
Labor Council for Latin American Advancement (LCLAA)*;
League of Railway Industry Women*;
National Association of Railroad Passengers (NARP);
National Association of Railway Business Women*;
National Conference of Firemen & Oilers;
National Railroad Construction and Maintenance Association;
National Railroad Passenger Corporation (Amtrak);
National Transportation Safety Board (NTSB)*;
Railway Supply Institute (RSI);
Safe Travel America (STA);
Secretaria de Comunicaciones y Transporte*;
Sheet Metal Workers International Association (SMWIA);
Tourist Railway Association Inc.;
Transport Canada*;
Transport Workers Union of America (TWU);
Transportation Communications International Union/BRC (TCIU/BRC); and
United Transportation Union (UTU).

*Indicates associate, non-voting membership.

Effective May 2006, the following additional members have been added to the Committee:

Transportation Security Administration;
American Chemistry Council;
American Petroleum Institute;
Chlorine Institute;
Fertilizer Institute; and
Institute of Makers of Explosives.

When appropriate, FRA assigns a task to RSAC, and after consideration and debate, RSAC may accept or reject the task. If the task is accepted, RSAC establishes a working group that possesses the appropriate expertise and representation of interests to develop recommendations to FRA for action on the task. These recommendations are developed by consensus. A working group may establish one or more task forces to develop facts and options on a particular aspect of a given task. The task force then provides that information to the working group for consideration. If a working group comes to unanimous consensus on recommendations for action, the package is presented to the full RSAC for a vote. If the proposal is accepted by a simple majority of RSAC, the proposal is formally recommended to FRA. FRA then determines what action to take on the recommendation. Because FRA staff play an active role at the working group level in discussing the issues and options and in drafting the language of the consensus proposal, FRA is often favorably inclined toward the RSAC recommendation. However, FRA is in no way bound to follow the recommendation, and the agency exercises its independent judgment on whether the recommended rule achieves the agency's regulatory goal, is soundly supported, and is in accordance with policy and legal requirements. Often, FRA varies in some respects from the RSAC recommendation in developing the actual regulatory proposal or final rule. Any such variations would be noted and explained in the rulemaking document issued by FRA. If the working group or RSAC is unable to reach consensus on recommendations for action, FRA moves ahead to resolve the issue through traditional rulemaking proceedings.

F. Establishment of Railroad Operating Rules Working Group

On April 14, 2005, FRA held a Human Factors Workshop which convened members of RSAC for the purpose of developing a task statement to be presented at the next RSAC meeting. FRA explained that current regulations do not address compliance with the relevant operating rules that cause the preponderance of human factor accidents. The agency expressed a desire to standardize and adopt these rules as Federal requirements with greater accountability being the goal. It was also raised that training and qualification programs should be included as part of the task because employee compliance is certainly directly related to how well employees are instructed and tested. FRA suggested that one area of consideration was to improve its regulations (49 CFR part 217) which require each railroad to instruct its employees on the meaning and application of its code of operating rules, and to periodically test its employees to determine their level of compliance. Many participants expressed a preference for non-regulatory action.

On May 18, 2005, the RSAC accepted a task statement and agreed to establish the Railroad Operating Rules Working Group whose overall purpose was to recommend to the full committee how to reduce the number of human factor caused train accidents/incidents and related employee injuries. The working group held eight two-day conferences, one per month from July 2005 through February 2006. The vast majority of the

time at these meetings involved review of an FRA document suggesting language that could form the basis of proposed regulatory text. This exercise was extremely beneficial as participants were able to fully strengthen the proposal.

FRA clearly benefitted from the participation of the working group in detailed review of railroad operating rules and practices; unfortunately, the RSAC participants were unable to reach a consensus for making formal recommendations. Typically, FRA gives great deference to RSAC's recommendations when proposing a rule, although the agency is not bound to adopt such recommendations. Here, where RSAC was unable to make formal recommendations, FRA is, of course, not bound by FRA's proposal within the RSAC working group process. However, FRA has sought to carry forward the elements of the discussion draft that had benefitted from thoughtful comment by Working Group members. FRA developed a greater appreciation for the nuances of each of the railroad operating rules and practices discussed; and, armed with that additional insight, FRA has sought to put forth a reasonable proposal that reflects real world railroading.

G. Development of the NPRM

EO 24 illuminated the problems associated with mishandling of hand-operated main track switches in non-signaled territory. While there may be more than one cause that contributes to non-compliance with the operating rules, accidents could be prevented by strict employee compliance with those rules. Accidents involving this type of switch often occur when the employee operating the switch loses focus on the task at hand. In an effort to refocus the attention of employees who operate switches, EO 24's seven sections can be boiled down to three major components: (1) Instruction, (2) communication and (3) verification through testing. FRA's proposed rule incorporates these three major components but with a broader application.

Instruction. It is fundamental that an employee cannot be expected to properly abide by operating rules without proper instruction, especially when those operating rules have been amended. To that end, EO 24 provides an outline for essential initial instruction and periodic instruction. Likewise, FRA proposes enhanced instruction, training and examination, i.e., qualification, for employees on the relevant operating rules, pertaining to handling equipment, switches and derails.

Communication. FRA agrees with the general principle that mistakes can be prevented or corrected by proper communication. Communication prevents non-compliance and accidents because it generally is how people working together know what each of them is doing. For example, EO 24 stressed the importance of communication by requiring job briefings at certain crucial intervals: Before work is begun, each time a work plan is changed, and at completion of the work. Such regular job briefings ensure that employees working together understand the task they are intending to perform and exactly what role is expected of them and their colleagues. Through proper job briefings, employees can prevent some mishaps and contain others from worsening a bad situation. For these reasons, FRA proposes a job briefing component to this rulemaking.

In the background section of EO 24, FRA described a recurrent scenario of non-compliance where a train crew's mistake in leaving a main track switch lined for movement to an auxiliary track was the last act or omission that resulted in an accident; and yet these types of accidents are preventable through reliable communication of the actual switch position. This scenario ''occurs when a train crew has exclusive authority to occupy a specific track segment until they release it for other movements and [yet] that train crew goes off duty without lining and locking a hand-operated main track switch in its normal position''. 70 FR at 61497. It is unfortunate that FRA has to clarify that the communication be reliable and accurately reflect the switch position, but some accident investigations have revealed employees whose actions implied more of an interest in quitting work for the day than taking the safe route to verify a switch's position and whether it was properly locked. FRA's proposal retains EO 24's emphasis on intra-crew communication or intra-roadway worker group communication. *See* 70 FR at 61499–50 and § 218.103.

Perhaps the most controversial aspect of EO 24 is the requirement that employees operating hand-operated main track switches in non-signaled territory complete a Switch Position Awareness Form (SPAF). The SPAF requirement is controversial because it creates a paperwork burden for employees and railroads. Switches may be lined and locked properly, but a violation of EO 24 may occur for merely failing to fill out a single component on the form. Critics of the form may not appreciate that FRA's intention for requiring a SPAF is to create a contemporaneous communication that reminds the employee of the importance of properly lining and locking such main track switches.

In the case of a train crew, the contemporaneous communication created by the SPAF is twofold: (1) The SPAF itself is a written communication that reminds the employee operating the switch to keep track of the switch's position and (2) another crewmember, typically the locomotive engineer, serves as a secondary reminder to the employee operating the switch because that other crewmember is also required to request information as to the switch's alignment. As FRA clarified in EO 24's second notice, it is immaterial how crewmembers communicate, e.g., whether in-person, by radio, by hand signals, or other effective means, as long as the communication takes place. 70 FR 71186 and 71188. By requiring both the SPAF and the intra-crew communication, FRA is requiring some redundancy, i.e., two communication reminders to properly line and lock such switches in the case of a train.

For purposes of EO 24, the paperwork burden and the redundancy in communication created by the introduction of the SPAF was acceptable. The very sharp increase in collisions, deaths and injuries resulting from improperly lined main track switches required FRA to take decisive action. Prior to EO 24, many railroads had already adopted the use of a SPAF voluntarily as a best practice suggested in Safety Advisory 2005–1. However, the inclusion of a SPAF in EO 24 does not bind the agency to forever require it; and the proposed rulemaking suggests an alternative approach that does not include it.

FRA decided not to propose requiring a SPAF in this proposed rule because the comprehensive communication requirements contained in proposed § 218.103, titled ''Hand-operated Switches and Derails'', creates a direct enforcement mechanism that makes enforcement through a SPAF redundant. For example, the proposal includes a requirement that all crewmembers verbally confirm the position of a hand-operated main track switch that was operated by any crewmember of that train before it leaves the location of the switch. *See* § 218.103(i)(3)(i). Likewise, the proposed rule would require that upon the expiration of exclusive track occupancy authority for roadway workers, roadway workers who operate hand-operated main track switches report the position of any such switches operated to the roadway worker in charge. *See* § 218.103(i)(3)(ii).

NTSB also ''does not believe that * * * the use of forms [such as a SPAF]

is sufficient to prevent recurrences of accidents such as the one at Graniteville.'' NTSB/RAR–05/04 at 45. In support of this position, NTSB cites to the example of railroads that require train crews to record signal indications as they are encountered en route in order to lessen the chance that a traffic control signal will be missed or misinterpreted by a crew. Meanwhile, NTSB states that it ''has investigated a number of accidents in which such forms, although required and used, did not prevent crews from missing signals and causing accidents.'' *Id.*

Although NTSB does not support the use of a SPAF, it did express agreement with the emergency order in two respects. That is, NTSB supported EO 24's requirements directing that job briefings be held at the completion of work and that a train crewmember who repositions a hand-operated main track switch in non-signaled territory communicate with the engineer regarding the switch position. In support of this position, NTSB explains that ''a comprehensive safety briefing was not held before the work at Graniteville [and] [h]ad such a briefing been held before and, more importantly, after the work (as required by the FRA emergency order), the accident might have been avoided.'' *Id.* at 46. As stated previously, FRA proposes to retain these two aspects from the emergency order in its rule.

The EO 24 requirements for employees releasing the limits of a main track authority in non-signaled territory to communicate with the train dispatcher have, for the most part, carried over to this proposed rule and been strengthened. The proposed rule retains the requirement in EO 24 that an employee releasing the limits of a main track authority in non-signaled territory communicate with the train dispatcher that all hand-operated main track switches operated have been restored to their normal position, unless the train dispatcher directs otherwise, but only to the extent that the switches are at the location where the limits are being released. 70 FR at 61499 and § 218.103(c)(2). With the proposed elimination of a SPAF, it would be difficult for an employee to recall the condition of any particular hand-operated main track switch operated and there would likely be a reaction for an employee to believe he or she left all such switches in proper position—without much opportunity to double-check the condition of those faraway switches at that time. As mentioned previously, accidents often occur where the limits are being released and that is why the proposed rule has placed emphasis on addressing the problem prior to departing the train's location. The switches located at the point of release of the limits should be readily accessible for any employee who is unsure of the condition the switch was last left in. The proposed rule also adds the requirement that the employee report that the switch has been locked; locking of the main track switch should prevent easy access to unauthorized users.

Hand-in-hand with the EO 24 requirement that the employee contact the dispatcher to release main track authority in non-signaled territory is the corresponding requirement in EO 24 for train dispatchers; that is, EO 24 requires that the train dispatcher must also confirm the switch positions with the employee releasing the limits before clearing the limits of the authority and confirm that the SPAF was initialed as required. The proposed rule also requires the train dispatcher to verify the switch position information with the employee and the requirement for the dispatcher to confirm that the switch is locked in the intended position by repeating to the employee releasing the limits the report of the switch position and asking whether that is correct. The proposed rule also strengthens the current requirement in EO 24 by requiring that the employee then confirm this information with the train dispatcher.

FRA would appreciate comments that include descriptions of ''close calls'' in which the additional employee/dispatcher communications required in EO 24 prevented hand-operated main track switches from being left improperly lined or unlocked. Any other comments regarding such required communication between employees and dispatchers would be appreciated.

Verification through testing. The third major component of EO 24's requirements involves the verification of compliance through testing. FRA's regulations, at 49 CFR part 217, require each railroad to instruct its employees on the meaning and application of its code of operating rules, and to periodically test its employees to determine their level of compliance. Compliance with railroad operating rules is critical, especially when technology does not provide a fail safe option.

Most railroads have excellent written programs of operational tests and inspections, but FRA has identified weaknesses in the oversight and implementation of nearly all of these programs. For example, some railroad testing officers lack the competency to perform operational tests and inspections. Likewise, some railroads do not perform operational tests that address the root cause of human factor accidents, while others view the requirement as a numbers-generating exercise, and consequently conduct relatively few meaningful tests. That is, while it may be important that employees come to work with the proper equipment (and FRA considers that a basic requirement which, of course, must be satisfied), FRA's concern is that not enough verification testing is occurring on the operating rules most likely to cause accidents, including but not limited to rules addressing handling of switches.

FRA's verification through testing and inspection requirements in EO 24 are narrowly focused on those operating rules involving the operation of hand-operated main track switches in non-signaled territory. The purpose of this narrow focus was to create a special obligation for only those types of rules violations that were causing the emergency situation. FRA still believes compliance with these types of rules should be verified. The proposed rule would replace EO 24's requirements and add requirements for verification of testing on a broader number of operating rules directly related to the root cause of human factor accidents; that is, the proposed rule would require testing of all the rules related to proposed part 218, subpart F, not just those rules related to hand-operated main track switches in non-signaled territory.

The proposed rule would also amend sections 217.4 and 217.9 to require competency of railroad testing officers. In FRA's view, it is unfathomable that railroad testing officers would be allowed to conduct tests and inspections without proper instruction, on-the-job training, and some kind of written examination or observation to determine that the person is qualified to do the testing; however, Federal regulations currently do not require that railroad testing officers be qualified in such a manner. Railroads should already be shouldering this burden without Federal requirements so we do not view this as a substantial burden; instead, we view the qualification of railroad testing officers as a necessary expense of operating a railroad.

Furthermore, railroad officers that test for non-compliance are typically the same officers who are in charge of operations. In that regard, a railroad officer, who is knowledgeable of Federal requirements and the government's enforcement authority over individual officers, should be discouraged from ordering an employee to violate any operating rule inconsistent with

proposed part 218, subpart F. In other words, if all railroad testing officers on a particular railroad are properly qualified, it will be more difficult for railroad officers to accept inconsistency in the application of operating rules.

FRA proposes amending § 217.9 to require railroads to focus programs of operational tests and inspections ''on those operating rules that cause or are likely to cause the most accidents or incidents''. See § 217.9(c)(1). Except for the smallest freight railroads, FRA proposes that each railroad conduct one or more reviews of operational tests and inspections that should help guide each railroad in its implementation of its program. The monthly, quarterly, and six-month reviews for freight railroads, as well as the reviews for passenger railroads, in proposed § 217.9(e) would formalize a best practice from some of the largest and safest railroads nationwide. The proposed reviews are intended to ensure that each railroad is conducting tests and inspections directed at the causes of human factor train accidents and employee casualties. Each program would be specifically required to include appropriate tests and inspections addressing the rules dealing with handling of switches, leaving equipment in the clear, and protecting the point of the shove. Structured tests or observations permit railroads to find employees that need additional training or who may benefit from a reminder that it is not acceptable to take shortcuts that violate the operating rules.

Furthermore, the proposal to amend the program of operational tests and inspections, by emphasizing its purpose to focus on operating rules violations that cause accidents, should cut down on the disparity between the few instances of non-compliance found by many railroads with the many instances of non-compliance found through FRA inspections on the same railroads (*see* discussion in ''*Increase In Human Factor Caused Accidents and Non-compliance*''). While railroads have universally done an acceptable job of taking corrective action following an accident, railroads have not done as well in consistently testing for the variety of operating rules, at a variety of locations, and at different times of the day, in order to meet FRA's expectations for an effective testing and inspection program. Accidents and incidents of non-compliance should be prevented by the proposed formalization of the process of verification through testing and FRA's proposed ability to inspect each railroad's program of operational tests and inspections, as well as its records.

Finally, FRA emphasizes that it intends to retain an enforcement mechanism, as it did in EO 24, because prior reliance on the railroad to ensure employee compliance with railroad operating rules without a Federal enforcement mechanism has repeatedly proven to be inadequate to protect the public and employee safety. Under current regulations, FRA has been able to effectively intervene in railroad operating rules compliance issues (apart from those already codified as obligations under existing regulations) only indirectly, through use of substantial resources, and in the case of exceptionally pervasive non-compliance. The system of accountability provided for in this proposed rule will, by contrast, encourage railroad management to prevent a lessening of oversight or decline in compliance by reviewing safety performance in detail, assisting individual employees to acquire habits of work that are consistent with safety by permitting them to challenge directions that could cause them to cut corners, and permitting individual FRA inspectors to more persuasively seek corrective action early in the process of deteriorating rules compliance.

While FRA intends to retain an enforcement mechanism, there may be instances where an employee realizes that he or she violated an operating rule but is afraid of the consequences of reporting the error—even when such reporting would have the potential to prevent an accident or injury to other workers or innocent bystanders. NTSB addressed this point in its report on the Graniteville accident when it stated that a ''significant civil penalty may have an unintended impact on safety under some circumstances. That is, an employee who, after leaving a work site, realizes that a switch has been left improperly lined may be made more reluctant than in the past to immediately report the error to train dispatchers. The threat of the severe fine may prompt the employee to attempt a remedy (such as returning later to reline the switch) before the mistake can become known. As happened in the September 2005 fatal collision in Shepherd, Texas, such action on the part of the employee could contribute to an accident that might otherwise have been avoidable.'' NTSB/RAR–05/04 at 46. As FRA would certainly not want a regulation to discourage an employee from reporting or correcting a potentially hazardous situation, we would appreciate any suggestions for processes which could avoid a disincentive to report unsafe conditions. One concept FRA is considering for the final rule is to require each railroad to have a reporting program whereby FRA would agree not to use reports submitted to the railroad under the safety self-reporting program (or information derived therefrom) in any enforcement action except information concerning accidents or criminal offenses which are wholly excluded from the program. This concept is in use by the Federal Aviation Administration (FAA) for providing relief from penalties for pilots who report unsafe actions or conditions through the Aviation Safety Action Program, described in Advisory Circular 120–66B, and the Aviation Safety Reporting Program described in Advisory Circular 00–46D—Aviation Safety Reporting Program and referred to in 14 CFR 91.25. FRA would like comment on whether programs similar to the two FAA programs could be adopted by FRA to avoid adverse incentives.

III. Remote Control Operations

A. Background

Remote control devices have been used to operate locomotives at various locations in the United States for many years, primarily within certain industrial sites. Railroads in Canada have made extensive use of remote control locomotives for more than a decade. FRA began investigating remote control operations in 1994 and held its first public hearing on the subject in February 1995 to gather information and examine the safety issues relating to this new technology. On July 19, 2000, FRA held a technical conference in which all interested parties, including rail unions, remote control systems suppliers, and railroad industry representatives, shared their views and described their experiences with remote control operations. This meeting was extremely beneficial to FRA in developing its subsequent Safety Advisory.

On February 14, 2001, the FRA published recommended guidelines for conducting remote control locomotive operations. *See* 66 FR 10340, Notice of Safety Advisory 2001–01, Docket No. FRA–2000–7325. By issuing these recommendations, FRA sought to identify a set of ''best practices'' to guide the rail industry when implementing this technology. As this is an emerging technology, FRA believes this approach serves the railroad industry by providing flexibility to both manufacturers designing the equipment and to railroads in their different operations, while reinforcing the importance of complying with all existing railroad safety regulations. All

of the major railroads have adopted these recommendations, with only slight modifications to suit their individual requirements.

Regarding the enforcement of Federal regulations as they apply to remote control locomotive operations, the Safety Advisory explains that: ''although compliance with this Safety Advisory is voluntary, nothing in this Safety Advisory is meant to relieve a railroad from compliance with all existing railroad safety regulations [and] [t]herefore, when procedures required by regulation are cited in this Safety Advisory, compliance is mandatory''. *Id.* at 10343. For example, the Safety Advisory clearly states that ''each person operating an RCL [remote control locomotive] must be certified and qualified in accordance with 49 CFR part 240 [FRA's locomotive engineer rule] if conventional operation of a locomotive under the same circumstances would require certification under that regulation''. *Id.* at 10344.

In November 2001, all six major railroads submitted to FRA their training programs for remote control operators as required by part 240. Since that initial filing, several railroads have made changes to their remote control training programs at FRA's request. FRA is closely monitoring this training and making additional suggestions for improvement on individual railroads as they become necessary. These training programs currently require a minimum of two weeks classroom and hands-on training for railroad workers who were previously qualified on the railroad's operating and safety rules. Federal regulations require that locomotive engineers be trained and certified to perform the most demanding type of service they will be called upon to perform. Thus, a remote control operator who will only be called upon to perform switching duties using a remote control locomotive would not need to be trained to operate a locomotive on main track from the control stand of the cab.

In addition to the required training, the regulations require railroads to conduct skills performance testing of remote control operators that is comparable to the testing required of any other locomotive engineer performing the same type of work. Federal regulations also hold remote control operators responsible for compliance with the same types of railroad operating rules and practices that other locomotive engineers are required to comply with in order to retain certification. *See* 49 CFR 240.117. Any alleged non-compliance triggers an investigation and review process. If a violation is found, the remote control operator will be prohibited from operating a locomotive on any railroad in the United States for a minimum of 15 days to a maximum of three years. The length of the prohibition (or revocation of the certificate) depends on whether the person was found to have committed other violations within the previous three years and whether the railroad, using its discretion, determined that the person had completed any necessary remedial training.

Furthermore, FRA addressed the current Federal locomotive inspection requirements and the application of those requirements to remote control locomotive technology. For example, the Safety Advisory states that the remote control locomotive ''system *must* be included as part of the calendar day inspection required by 49 CFR 229.21, since this equipment becomes an appurtenance to the locomotive''. *Id.* at 10344 (emphasis added). Another example of a mandatory requirement mentioned in the Safety Advisory is that the remote control locomotive ''system components that interface with the mechanical devices of the locomotive, e.g., air pressure monitoring devices, pressure switches, speed sensors, etc., should be inspected and calibrated as often as necessary, *but not less than* the locomotive's periodic (92-day) inspection''. *Id.* (emphasis added); see 49 CFR 229.23. Thus, the Safety Advisory reiterated that existing Federal regulations require inspection of the remote control locomotive equipment.

Although some aspects of this proposed rule pertains to main track operations where remote control locomotive operations rarely occur, most of the problems this proposal is intended to address are found equally in conventional and remote control locomotive yard switching operations. As FRA reported to Congress earlier this year, ''RCL [i.e., remote control locomotive] and conventional train accident rates were virtually identical for those major railroads that made extensive use of both types of operations''. ''Final Report—Safety of Remote Control Locomotive Operations'' (''Final Report'') (March 2006) (published on FRA's Web site at *http://www.fra.dot.gov/*). The current remote control locomotive technology is best used for yard switching operations and is primarily used for that purpose. *See* Final Report at 15–17.

The proposed rule would continue FRA's policy of implementing minimum requirements for safe remote control locomotive operations within the confines of railroad operating rules having broad applicability. As previously explained, FRA has found existing rules adequate to accommodate safe remote control locomotive operations without the need to draft a rule narrowly focused on remote control locomotive operations. *See* Docket No. FRA–2000–8422 (found at *http://dms.dot.gov/*) (denying a request for initiation of a rulemaking to solely address remote control locomotive issues). That said, after identifying certain characteristics of remote control locomotive shoving or pushing operations, FRA is proposing one requirement that pertains to remote control locomotive operations; that requirement addresses the problem of lack of situational awareness. *See* § 218.99(c). FRA also recognizes the relatively new use of permanently installed cameras in yards or at grade crossings which permit an employee to provide point protection without being physically present. Although it is possible for this technology to be used in conventional operations, e.g., by a yardmaster for a train crew, we believe it is more often used for remote control locomotive operations. *See* § 218.99(b)(2). The following background on these two issues should illuminate them further.

B. Situational Awareness

In FRA's recent report to Congress, the agency identified the potential for a reduction in a remote control operator's situational awareness as one of four human factor issues that warrant close attention as remote control locomotive technology continues to evolve. *See* Final Report at 24–26. A locomotive engineer, including a remote control operator, who is located in the cab of a controlling locomotive has a greater situational awareness than a remote control operator located on the ground. A remote control operator located on the ground may also be more easily distracted by conflicting movements or other physical dangers caused by continuously moving about the yard than a person located in a locomotive cab. Also, a remote control operator on the ground may forget, or may not know, the locomotive orientation (i.e., the particular direction the remote control locomotive is heading) due to his or her location away from the remote control locomotive, and thus may initiate a movement in the wrong direction. Similarly, a defective or misaligned switch could cause a movement to diverge onto a connecting track unintentionally and go unnoticed if the remote control crewmembers are not observing the direction of

movement. Apparently, the latter is what happened on December 7, 2003, on the Union Pacific Railroad in San Antonio, Texas, when a remote control locomotive operator, while switching, was struck and killed by his locomotive at the west end of UP's East yard. The employee had reversed one end of a crossover switch and was walking toward the other end of the crossover switch to line it when he was struck from behind by the remote control locomotive. The employee had started the remote control locomotive moving as he was walking toward the other end of the crossover. *See* Final Report at 90. This move was initiated after the employee pushed a button to realign a power-assisted switch, but likely did not wait at the switch machine to confirm visually that the points had moved to the correct position. NTSB/RAB–06/02 at 9. In addition to lack of adequate railroad oversight of the misaligned power-assisted switch, NTSB concluded that the probable cause of this accident was the employee's ''inattentiveness to the location of the locomotives and the switch position''. NTSB/RAB–06/02 at 11. Certainly, this inattentiveness is another way to describe a lack of situational awareness.

As many railroads were not eager to invest in remote control technology until after FRA issued its Safety Advisory 2001–01, there is limited data and few studies completed detailing the safety implications of remote control operations; however, among the few studies that have been completed, situational awareness has arisen as a recurring theme. For example, in a study funded by FRA, an independently conducted root cause analysis of six remote control locomotive-involved accidents/incidents that occurred in 2006, found that the loss of situational awareness was a major factor in five of the accidents/incidents analyzed. Human Factors Root Cause Analysis of Accidents/Incidents Involving Remote Control Locomotive Operations (May 2006) (DOT/FRA/ORD–06/05) (published on FRA's Web site at *http://www.fra.dot.gov/downloads/Research/ord0605.pdf*). Further analysis suggests that remote control locomotive technology facilitated this loss of awareness in four of these five accidents/incidents by enabling remote control operators to control their cuts of cars away (i.e., remotely) from the point of movement. Additionally, four probable contributing factors were related to one or more remote control operator's control of a movement from a physical location away from the remote control locomotive and/or cut of cars. Consequently, the independent contractor who performed the root cause analysis identified the loss of remote control operator situational awareness as one of only four critical safety issues identified. *See* Final Report at 85–90.

FRA also sponsored the same independent contractor to undertake a study based on focus group sessions with remote control operators. These sessions provided a forum to gather information about operator experiences with remote control locomotive operations, to identify safety issues, lessons learned, and best practices from those who are most familiar with remote control locomotive operations and equipment. Focus groups also provided a means to solicit suggestions on how to improve remote control locomotive operations. One of the themes identified was that situational awareness can be lost when the remote control operator is not in the immediate vicinity of the remote control locomotive. Among the recommended practices from the focus groups were the suggestions to standardize operating practices and to require remote control operators to protect the point at all times. *See* Final Report at 79–85.

The Brotherhood of Locomotive Engineers and Trainmen (BLET) sponsored a study by Dr. Frederick C. Gamst, a private consultant specializing in railroading, and Mr. George A. Gavalla, a private consultant and former FRA Associate Administrator for Safety. ''Hazard Survey of Remote Control Locomotive Operations on the General System of Railroads in the United States'' (''BLET Study'') (The BLET Study is available in the docket for this NPRM). The BLET Study is based on anecdotal information supplied by railroad workers and officers who voluntarily self-reported their thoughts and experiences concerning their interactions with remote control operations. All of the self-reporting was done in writing and mainly via the Internet in its various forms of communication (*i.e.*, e-mails, bulletin-boards, weblog, etc.). The study catalogues the myriad experiences, complaints, and ideas that were recorded by Dr. Gamst over three years beginning in January 2002. The anecdotal information collected by Dr. Gamst reflects the same general themes identified in the focus group study sponsored by FRA and described in the preceding paragraph. As in FRA's sponsored focus group study, the information Dr. Gamst collected is not statistically sampled to be representative of all remote control operators in the U.S. or Canada. While the main drawback to these types of studies is that the researchers do not attempt to validate any statements made by employees, as participation is often premised on the condition that employees remain anonymous, the collection of individual opinions and perceptions taken as a whole are useful in identifying problems associated with remote control operations. Like the FRA's sponsored studies, the BLET's sponsored study also identified perceived problems associated with a remote control crew not observing the direction of movement. Specifically, the BLET study raised the issue as the reason why a remote control operator might keep shoving or pulling after a movement derailed or collided with an obstruction. *Id.* at 60–62.

C. Technology Aided Point Protection

Although railroading is now one of the nation's older forms of mechanized transportation, equipment, components and operations all have evolved through new and improved technologies. Installing cameras in yards so that a location could be remotely monitored from somewhere else has become a railroading reality as cameras have become smaller, less expensive, and have increased resolution. It is possible to set up these cameras and monitors so that they provide at least an equivalent level of safety to that of an employee protecting the point. The proposed rule would permit such an operation to substitute for an employee's direct visual determination where the technology provides an equivalent level of protection to that of a direct visual determination. *See* § 218.99(b)(2)(i).

The substitution of such technology for a direct visual determination is dependent on many factors. Each particular situation will have its own particular factual circumstances that must be considered in determining whether an equivalent level of safety can be met. For instance, with regard to the basic camera set-up, a railroad will need to consider whether an operator must see in color (largely a necessity if viewing signals), the width of the angle of view, the size and location of the monitor, whether the technology is for day-time use only, and whether its use should be limited to fair weather conditions. However, under all circumstances, the monitor must display sufficient information to enable the viewer to make a determination that the track ahead of the move is clear and properly lined.

There is also the consideration of whether the person viewing the monitor is the locomotive engineer, remote control operator, other crewmember or

other person, such as a yardmaster. If the monitor is not being viewed by the operator who is controlling the movement, then, there must be a clear understanding and channel of communication between the operator and the employee who is viewing the monitor—as the latter would be protecting the movement. Providing an equivalent level of protection to that of a direct visual determination requires a thorough job briefing in which there is an understanding of who is observing the movement, what is the observer's range of vision, at what locomotive speed can the observation be made and how information will be conveyed to the operator/engineer, if that person is not the one viewing the monitor. These camera/monitor set-ups will require railroads to implement attendant procedures and qualify each employee who will be utilizing the technology. These issues are further developed in the section-by-section analysis for § 218.99(b)(2)(i).

The issue of reliance on non-crewmembers to carry out some remote control locomotive operator crew functions was raised in the focus group study sponsored by FRA and summarized in the Final Report. The remote control operators that made up the focus groups had indicated that there were occasions in which a non-crewmember, generally a yardmaster, would provide point protection, line switches, or check the status of a derail for a remote control crew. When this was allowed, several potential problems could result. First, there is great potential for an error in communication or a misunderstanding between the non-crewmember and the crewmembers regarding the activity or status of equipment. Further, a yardmaster who is occupied with his or her other responsibilities might not give the task the attention it deserves, or could be distracted and give an incorrect answer to a question by a remote control crewmember (e.g., ''is the move lined?''). The result could be that the task does not get completed or there is an error in task execution. Further, the remote control crew might not have any alternative way of determining that there is a problem with the point protection provided by the non-crewmember until it is too late. *See* Final Report at 82. Similar issues were raised in the BLET Study. BLET Study at 44.

In FRA's Final Report, the agency addressed the issue of utilizing remote cameras for remote control locomotive operations to protect the point at highway-rail grade crossings in lieu of direct visual determinations. *See* Final Report at 13–15. Railroad operating rules currently permit a movement to travel over a crossing without the physical presence of a crewmember if a crossing is equipped with gates, if it can be determined that the gates are in the fully lowered position, and if the crossing is clear of vehicles and pedestrians. One major railroad has begun using a remote camera system at several crossings to make the required determinations. The railroad believes that crossing protection rules can be observed using this system. The conditions FRA presented in its report to Congress are repeated here as FRA would appreciate comments addressing whether these conditions should remain permissive or should be made mandatory.

FRA believes the use of remote camera protection at highway-rail grade crossings offers an equivalent means of safety provided the following recommendations are adopted:

1. Before camera-assisted remote control locomotive operations are permitted at highway-rail grade crossings, a Crossing Diagnostic Team should evaluate the crossing. The diagnostic team should have representatives from the railroad, FRA, the State department of transportation (or another State agency having jurisdiction over the highway-rail grade crossing), and local government authorities. The diagnostic team should evaluate the suitability of each crossing for remote camera operations. Among the factors it should consider are the following: the average daily traffic counts; the number of highway lanes; highway speed limits; the number of railroad tracks; the volume of school bus, transit bus, emergency vehicle, large truck, and hazardous materials traffic over the crossing; the minimum remote control locomotive operator sight distances of roadway approaches to the crossing; and other relevant factors that could affect the safety of the crossing. The diagnostic team should also consider the appropriate number of cameras and appropriate camera angles needed to provide for the remote operation of remote control locomotives over the crossing.

2. Remote cameras should only be used at crossings equipped with warning lights, gates, and constant warning and motion sensor devices.

3. The cameras should be arranged to give the remote control locomotive operator a view of the rail approaches to the crossing from each direction to accurately judge the locomotive's proximity to the crossing.

4. The cameras should be arranged to give the remote control locomotive operator a clear view to determine the speed and driver behavior (e.g., driving erratically) of any approaching motor vehicles.

5. Either the camera resolution should be sufficient to determine whether the flashing lights and gates are working as intended or the crossing should be equipped with a remote health monitoring system that is capable of notifying the remote control locomotive operators immediately if the flashing lights and gates are not working as intended.

6. The railroad should notify local FRA offices when this type of protection has been installed and activated at a crossing to ensure that FRA grade crossing specialists and signal inspectors can monitor these operations.

Final Report at 14–15

It is possible that not all of the above recommendations would be necessary at highway-rail grade crossings equipped with supplemental safety devices that prevent motorists from driving around lowered gates. A diagnostic team, however, should make such determinations. FRA also recognizes that camera-assisted remote operation of remote control locomotives may not be a viable alternative at all highway-rail grade crossings.

IV. Section-by-Section Analysis

PART 217—[AMENDED]

Section 217.2 Preemptive Effect

This section informs the public of FRA's intention and views on the preemptive effect of the rule. The preemptive effect of this rule is broad, as its purpose is to create a uniform national standard. Section 20106 of Title 49 of the United States Code provides that all regulations prescribed by the Secretary related to railroad safety preempt any State law, regulation, or order covering the same subject matter, except a provision necessary to eliminate or reduce an essentially local safety hazard that is not incompatible with a Federal law, regulation, or order and that does not unreasonably burden interstate commerce. Exceptions would be rare. In general, 49 U.S.C. 20106 will preempt any State law—whether statutory or common law—and any State regulation, rule, or order, that concerns the same subject matter as the regulations in this rule.

Section 217.4 Definitions

FRA proposes to add a definition of *Associate Administrator for Safety* to this section that is consistent with other definitions of this term in this chapter.

The purpose of including this definition is to identify a proposed official who would have the authority to require amendments to programs of operational tests and inspections.

FRA proposes to add a definition of *qualified* to this section. The need for this definition arose from the proposed new requirements for railroad testing officers in § 217.9. As further explained in the analysis for that section, it is not acceptable for a railroad testing officer to be monitoring or instructing employees without being instructed, trained and examined, i.e., qualified, on the railroad's operating rules and the tests the officer is expected to perform; thus, FRA proposes to require such qualification. It is proposed that a person cannot be qualified unless he or she has successfully completed all ''instruction, training and examination'' programs required by both the railroad and this part.

The definition is modeled after the definition used in § 240.7 in this chapter and should have the same meaning despite some slight differences. The phrase ''training and testing'' has been replaced by ''instruction, training and examination'' to more thoroughly reflect the educational aspects of the requirements for a qualified person. The proposed definition does not contain the word ''appropriate'' prior to the educational aspects so as to emphasize that the educational aspects of qualifying a person are mandatory, not discretionary. A word choice was made to substitute the term ''successfully completed'' for the word ''passed''. The definition proposed for part 217 is the same definition proposed for part 218, subpart F.

Section 217.9 Program of Operational Tests and Inspections; Recordkeeping

FRA is amending and adding paragraphs to this section. Although not every existing paragraph is being amended, FRA is reprinting the entire section to make it easier for readers to follow.

FRA is proposing an amendment to paragraph (a) which would clarify that the requirement to conduct operational tests and inspections specifically include tests and inspections sufficient to verify compliance with the requirements of subpart F of part 218 of this chapter. In this NPRM, FRA has identified certain operating rules with which non-compliance has led to an increase in human factor caused accidents. Proposed subpart F of part 218 requires that each railroad have in effect certain operating rules and that each railroad officer, supervisor and employee uphold and comply with those rules. As the operating rules identified in proposed subpart F of part 218 are designed to address the most frequently caused human factor accidents, FRA's proposed amendment to paragraph (a) addresses that railroads will specifically need to test and inspect for these proposed requirements in order to be in compliance with this section. The program's increased focus on human factor caused accident prevention should direct awareness to the related operating rules and correlate with a decrease in such accidents.

Paragraph (b) would be added to this section to establish new responsibilities for both railroads and those officers on the railroads who conduct operational tests and inspections, i.e., railroad testing officers. FRA inspections and investigations have revealed railroad testing officers who lack the fundamental knowledge to perform adequate tests and inspections. In order for these officers to be able to do a proper job, they must know the railroad's operating rules, how the tests they will conduct fit into the railroad's testing program, and how to conduct a proper test. Experience helps and field training can substitute for the lack of experience if needed to achieve proficiency. Of course, not every railroad testing officer has experience conducting every type of test, or needs to; however, a railroad testing officer should not be conducting a test on a rule the officer is unfamiliar with or without having been trained on how to conduct a proper test for the rule to be tested. A test that is incompetently executed should not count towards compliance with a railroad's program of operational tests and inspections. Finally, this paragraph requires written records documenting that each railroad testing officer was properly qualified and that such records be made available to FRA upon request.

FRA proposes to move current paragraph (b) to (c), add two new requirements and make a few minor amendments to remove obsolete dates. Regarding the two new requirements, FRA proposes a scheme that will require each railroad, to which this part applies, to amend the existing program of operational tests and inspections with the intended purpose of requiring railroads to do a better job of focusing their tests and inspections on those types of operating rules that either cause the most human factor caused accidents nation-wide or are identified as problematic on the particular railroad's division or system. At a minimum, FRA expects railroads to test and inspect for those operating rules identified as problematic in the quarterly or six month reviews, i.e., those operating rules violations that have recently caused accidents or incidents on the division or system-wide. We also expect railroads to regularly spot-check for compliance with those operating rules that lead to accidents and incidents nation-wide, even if the railroad has not specifically encountered any recent incidents. As mentioned in the **SUPPLEMENTARY INFORMATION** section under ''Development of the NPRM'', the verification through testing process does not always work well because during some periods of disruption related to organizational or personnel changes, some railroads do not perform operational tests that address the root cause of human factor accidents. At worst, administration of the program may be reduced to a numbers-generating exercise, and consequently on portions of the railroad officers may conduct relatively few meaningful tests. Clearly, FRA intends for the program of operational tests and inspections to be meaningful and the proposed amendments are intended to forcefully move lagging railroads to produce more meaningful tests and inspections.

Proposed paragraph (c)(1) would require that not only shall railroads ''provide for operational testing and inspection under the various operating conditions on the railroad'', as is currently required, but that such tests and inspections place ''particular emphasis on those operating rules that cause or are likely to cause the most accidents or incidents, such as those accidents or incidents identified in the quarterly reviews, six month reviews, and the annual summaries as required under paragraphs (e) and (f), as applicable''. Thus, if the proposal were finalized, FRA would expect that each railroad would conduct a significant number of tests and inspections directed at addressing localized problems with compliance, such as those identified on a division, problems identified on a system-wide basis, and leading causes of human factor caused accidents nation-wide, such as those identified through this proposed rule.

In order to gain some specificity in each railroad's program, paragraph (c)(1) also proposes ''a minimum number of tests per year that cover the requirements of part 218, subpart F of this chapter''. FRA is reluctant to state a percentage or specific number per number of employee work hours as each railroad may have particular operating rules it wishes to emphasize to a greater degree than the next; however, the objective in including this language is to encourage sufficient testing in these critical areas to verify good compliance

by railroad operating employees and to help establish the expectation that there will be compliance with those rules. FRA would be critical of a program that placed the majority of its emphasis on enforcing operating rules that are not leading causes of accidents/incidents. The proposed requirement for a specific minimum number of such tests per year follows from such a requirement imposed in EO 24, albeit EO 24 covered a smaller subset of the operating rules FRA is proposing to cover in part 218, subpart F.

Paragraph (c)(5) proposes a new requirement that the program show the railroad's designation of an officer to manage the program at each level of responsibility (division or system, as applicable). The officer may be designated either by name or job title, as long as the designation clearly identifies a responsible person that FRA can contact in case FRA wishes to audit the program. It is proposed that the officer should also have oversight responsibility to ensure that the program is being implemented properly across each division and system-wide. FRA's expectation is that this officer will at least manage the program to ensure that the overall direction of the program is sound. This designated officer would be expected to take an active role in ensuring that divisions and the entire system are meeting program requirements and ordering changes when expectations are not met. To the degree that a system-level officer can identify a division or a specific railroad testing officer that is failing to appropriately direct efforts, the designated officer would be expected to take corrective action. The designated officer should be making adjustments to the implementation of the program based on any reviews that might be required in proposed paragraph (e), as well as the annual summary produced in accordance with current paragraph (d), which is now proposed paragraph (f).

Additionally, current paragraph (b), which is proposed paragraph (c), would be amended by removing all references to ''[o]n or after November 21, 1994'' as this date is now obsolete. Current paragraph (b)(6) would be moved to proposed paragraph (c)(7) without any amendments. Current paragraph (c) would be moved to paragraph (d) but without any revisions to the text.

Proposed paragraph (e) would add requirements for periodic reviews for any railroad with at least 400,000 total employee work hours annually. FRA has decided to exclude freight railroads that have less than 400,000 total employee work hours annually because only 135 smaller railroads that meet this criterion reported any human factor caused rail accidents, and of those 135 that reported such accidents, only 20 railroads reported five (5) or more human factor caused rail accidents during the years 2002 through 2005. During this four year period, these 135 smaller railroads experienced 334 human factor caused rail accidents amounting to 7 percent of all human factor caused rail accidents. It should also be considered that there are almost 600 smaller railroads that fit this criterion and yet only 135 reported any human factor caused rail accidents at all. On that basis, FRA proposes excepting the smallest railroads, based on the less than 400,000 employee work hours threshold, from the monthly and quarterly reviews. Of course, if FRA accumulates evidence to suggest that railroads with less than 400,000 employee work hours are experiencing a significant number of human factor caused accidents, FRA will reconsider its position.

Similarly, Amtrak and the railroads providing commuter service in a metropolitan or suburban area also experience a relatively low number of human factor caused rail accidents compared to the freight railroads with greater than 400,000 employee work hours annually. During the years 2002–2004, Amtrak and the commuter railroads experienced a total of 270 accidents attributed to human factor causes. At a meeting held with members of the American Public Transportation Association (APTA) on April 27, 2006, (notes of this meeting are in the docket of this proceeding) APTA explained that many of its member railroads do not keep accident/incident data and/or operational testing data electronically and, thus, conducting periodic reviews greater than annually would create a substantial burden for those railroads that couldn't simply run a report from a computer. In addition, APTA members reminded FRA that a commuter railroad's budget is dependant on the generosity of local and State governments, which may not want to upgrade computers and software which would permit quicker and more efficient accident/incident reviews. Passenger railroads are generally more stable in their organizations and experience greater continuity with respect to staffing at the line officer level (where many problems often develop).

With regard to six month reviews, however, there is a definite benefit for Amtrak and the commuter railroads to conduct a thorough system level review to achieve some degree of accountability. Meaningful reviews should help drive proper implementation of the program of operational tests and inspections—thus driving down the number of accidents/incidents attributable to human factors. However, we would appreciate comments directed toward perceived weaknesses in this proposed rule and any alternatives for achieving similar accountability. The APTA delegation also raised the issue of time required for implementation; and FRA requests comment on that issue in light of the consolidated six month review proposed. FRA is not inclined to except even the smallest commuter railroads from the requirement that reviews be conducted, because in FRA's experience no railroad is free from the risk that good discipline will erode over time, and the consequences of a passenger train accident can be very serious indeed.

For the major freight railroads, the proposed monthly review and quarterly review would be developed and conducted at the division level unless no division headquarters, or its equivalent, exists. Most larger railroads have created division headquarters (see existing definition in § 217.4 of this part) to manage portions of the railroad and, certainly, railroads that have divisions do so because it is more efficient. That is, it is easier for an officer at a division headquarters to know what safety issues are problematic in his or her division than an officer of a large railroad at the system level.

In paragraph (e)(1)(i), a monthly review is proposed for each division or system depending on whether the freight railroad is large enough to maintain divisions. The proposed monthly review is not expected to be an onerous task. It is merely a quick written tally of the number of tests performed by each railroad testing officer, including the railroad operating rules tested for, and a determination made whether the monthly tally shows adherence to the written program of operational tests and inspections. When monthly reviews reveal non-compliance with the program, FRA expects railroads to take corrective action to regain compliance. The designated railroad officer in paragraph (c)(5) may or may not be the officer who performs the monthly review, but this designated railroad officer would be required to ensure that the monthly review is properly completed.

The quarterly review proposed for freight railroads in paragraph (e)(1)(ii) is expected to be considerably more comprehensive than the proposed monthly review. It should include all the information collected in the

monthly reviews as well as the types of information specified in the paragraph, i.e., ''review of the [railroad's] accident/incident data, the results of prior operational tests and inspections, and other pertinent safety data for that division or system to identify the relevant operating rules related to those accidents/incidents that occurred during the quarter''. The focus of the quarterly review is to identify those operating rules which pose the greatest risk of being violated—which should then be targeted for regular tests and inspections. That is why FRA proposes that based upon the results of the quarterly review, the designated officer shall make any necessary adjustments to the tests and inspections required of railroad officers for the subsequent period. The proposed quarterly review must be in writing and include the data upon which any conclusions are based.

FRA expects that in order to conduct a meaningful quarterly review, each railroad will review accident/incident data, operational test data, and other pertinent data. For example, a railroad should identify the relevant facts for each category of data. The relevant facts are usually covered if a railroad can answer the questions signifying who, what, where, when, why, and how often. For accident/incident data, these questions would involve identifying all the employees involved in the accident/incident, a description of the accident/incident, the location where it occurred, the time it occurred, the root cause and any secondary causes, and whether the division or system has suffered this type of accident/incident often, sometimes or never. For operational test data, the issues include identifying the railroad testing officer(s) responsible for the particular location, whether the testing officers are testing for the operating rules responsible for any recent accidents/incidents, whether the testing officers conducted any tests where any recent accidents/incidents occurred, whether the testing officers are testing during the hours of highest incident rates, whether any railroad officers are briefing the employees as to the root or secondary causes and the fact that the railroad will be testing for compliance, and how often the officers are conducting any follow-up testing and job briefings.

FRA believes there are at least five other types of pertinent safety data that should be included in a proper quarterly review. One, if FRA has conducted any recent inspections, the railroad should check whether its officers' tests reflect FRA's findings. Two, if an employee is involved in an accident/incident, the employee's safety record may provide insight. Three, the railroad should determine if there is any correlation between the training or experience of the local railroad testing officers and the locations where accidents/incidents have occurred. Four, a railroad should similarly consider the extent to which employee experience plays a part in any given accident/incident. Fifth, a railroad's review should consider whether any operational conditions have recently changed that increased the likelihood of either non-compliance with the operating rules or accidents/incidents. Special attention to all these details in the quarterly or six month review, as applicable, should lead a railroad to meaningful application of its written program of operational tests and inspections with a greater potential for driving down the frequency and severity of accidents/incidents.

Although it would be best if quarterly reviews were completed immediately following the end of each quarter, FRA proposes that 30 days should be a sufficient period in which to require its completion. FRA originally considered requiring the quarterly review in half that time but railroads participating at a Railroad Operating Rules Working Group meeting suggested that additional time would be needed for those railroads that do not maintain their safety data electronically. For those railroads that keep records electronically, FRA expects quarterly reviews to take place contemporaneously with the conclusion of the quarter—although the proposed requirement will be a generous 30 days post-quarter. Regardless of how long it takes to complete the quarterly review, each division or system should be prepared to redirect its railroad testing officers in order to appropriately react to any accidents/incidents of non-compliance during the previous quarter. Even where a division or system has had a particularly safe quarter, railroad testing officers should be instructed to adjust the way in which they are conducting their tests so that employees cannot easily anticipate the types of tests to be conducted, nor the dates and locations of such tests.

In proposed paragraph (e)(1)(iii) and (e)(2), six month reviews are only proposed for each Class I railroad, the National Railroad Passenger Corporation (commonly known as ''Amtrak''), and each railroad providing commuter service in a metropolitan or suburban area. The basis for the proposal is that the identified freight railroads are so large that each would benefit from an officer, likely at the system headquarters, who is identifiable by name or job title, who will oversee whether each division, line or segment is complying with the program of operational tests and inspections. It is expected that such an officer would have the authority to intervene in division, line or segment operations to the extent that this officer could order changes to the way divisions are implementing the program. The purpose for such intervention would be to require certain types of operational tests or inspections based on observations made system-wide that may not be apparent to each designated division officer armed only with data from his or her own division.

In the case of Amtrak and the commuter railroads, the requirements in paragraph (e)(2), demand reviews equivalent to those for the freight railroads in paragraph (e)(1), but require all the reviews to take place at least every six months. Of course, these are proposed minimum requirements and passenger railroads are free to initiate more frequent reviews. For example, proposed paragraph (e)(2)(i) describes a review that is equivalent to the proposed review for freight railroads on a monthly basis and certainly passenger railroads may perform that review on a monthly basis as well. Proposed paragraph (e)(2)(ii) describes a review that is equivalent to the proposed review for freight railroads on a quarterly basis, yet, again, passenger railroads would be required to perform that review at least every six months. Proposed paragraph (e)(2)(iii) describes a review that is to be completed at least once every six months and is the equivalent of the six month review proposed for freight railroads. As it is proposed that the passenger railroads conduct the same reviews as the freight railroad with the exception of the timing of those reviews, the prior section-by-section analysis description for each review is applicable here.

Because FRA needs to be assured that each railroad is complying with any required reviews, the proposal requires that the reviews be retained for one year after the end of the calendar year to which they relate and shall be made available to FRA upon request. FRA's proposal also encourages railroads to store these records electronically as long as they can be produced upon request.

FRA questions whether current paragraph (d), which we propose to move to paragraph (f), would add any additional benefit given the proposed new requirements. That is, FRA would expect that the quarterly and six month reviews proposed in paragraph (e) would require greater analysis than the current data collection exercise that is described by the paragraph requiring the

annual summary. Thus, FRA is considering whether to incorporate the data collection requirements from the annual summary into the six month report and do away with the annual summary as a separate exercise altogether. FRA would appreciate comments on this issue.

Current paragraph (d) is proposed to move to paragraph (f) and contains two amendments. One amendment is merely to change the term ''manhours'' to ''employee work hours'' as the latter is gender neutral. The second amendment would clarify that this requirement does not apply to ''a railroad with less than 400,000 total'' employee work hours *annually,* as the current rule accidentally fails to include the qualification of the time period.

Current paragraph (e) is proposed to move to paragraph (g) with one amendment. The current rule specifies that the railroad maintain a ''desk-top'' computer upon which the railroad can retrieve data. As laptop and notebook computers have become more common, and their computing abilities now rival desk-top models, there is no reason to restrict railroads from using any computer to retrieve records for FRA under this section.

Proposed paragraph (h) would clarify that railroads and individuals can be liable for falsifying or deliberately mutilating records required by this section. FRA would have civil penalty authority, and the Federal government could prosecute these types of acts under criminal statutes, whether or not this paragraph is included in a final rule. *See,* e.g., 49 U.S.C. 21311. However, at this juncture, FRA has decided to include this paragraph as a reminder to railroads and individuals, and as a placeholder for the addition of penalties in Appendix A to part 217—Schedule of Civil Penalties.

Paragraph (i) proposes that FRA have some specific oversight mechanism for disapproving a railroad's program of operational tests and inspections. It also proposes minimum procedures and structure for the review process. The proposal would require that the Associate Administrator for Safety only disapprove programs required by this section for cause stated. As the disapproval decision is made for cause, it is significant for the railroad to understand exactly why FRA is disapproving the program; thus, FRA proposes that its notification of such disapproval be made in writing and specify the basis for the disapproval decision. If the Associate Administrator for Safety disapproves the program, it is proposed that the railroad be provided an opportunity of not less than 30 days to respond and to provide written and/or oral submissions in support of the program. It will be up to the Associate Administrator for Safety to grant additional time to respond in the rare instances that the railroad requests more than 30 days. The Associate Administrator for Safety shall render a final decision in writing and the railroad shall be provided not less than 30 days to amend the program in accordance with the Associate Administrator for Safety's decision. Again, on a case-by-case basis, it is proposed that the Associate Administrator for Safety may provide a railroad with additional time to correct a disapproved program. Although enforcement action is always discretionary, FRA believes that enforcement action is warranted when a railroad fails to appropriately and timely amend its program.

The approach in proposed paragraph (i) recognizes that FRA will want to review such written programs during audits or investigations and that FRA should have the authority to request changes to the program if it does not meet the minimum requirements of this rule. The oversight authority vests with the Associate Administrator for Safety. Although FRA would have authority to review in detail each railroad's program, FRA does not intend to have each railroad submit its program for review and explicit approval. Rather, FRA intends to review the programs of the major railroads over a multi-year cycle to determine if they are effective. Please note that the proposal is for the Associate Administrator for Safety to render a final decision in writing. FRA solicits comments regarding the need for further appeals within FRA.

Although not contained in this proposal, FRA solicits comments as to whether the final rule should require each railroad to instruct its employees on operating rules at least once every three years. FRA has decided to propose a requirement that only requires such periodic instruction as it applies to those operating rules that would be required by part 218, subpart F instead of all railroad operating rules. *See* § 218.95(a)(5). As periodic training of operating rules is already occurring on the vast majority of railroads, FRA's proposal in part 218, subpart F is focused on those operating rules that cause the most accidents. Adding a more general requirement would likely improve safety for railroads which conduct few operating rules classes and we would appreciate comments regarding the costs and benefits of such a minimum requirement.

PART 218—[AMENDED]

Section 218.4 Preemptive Effect

This section informs the public of FRA's intention and views on the preemptive effect of the rule. The preemptive effect of this rule is broad, as its purpose is to create a uniform national standard. Section 20106 of Title 49 of the United States Code provides that all regulations prescribed by the Secretary related to railroad safety preempt any State law, regulation, or order covering the same subject matter, except a provision necessary to eliminate or reduce an essentially local safety hazard that is not incompatible with a Federal law, regulation, or order and that does not unreasonably burden interstate commerce. Exceptions would be rare. In general, 49 U.S.C. 20106 will preempt any State law—whether statutory or common law—and any State regulation, rule, or order, that concerns the same subject matter as the regulations in this rule.

Section 218.5 Definitions

FRA is proposing an amendment to the definition of *flagman's signals* in order to eliminate a reference to ''torpedoes''. Torpedoes are antiquated signaling devices which have fallen into disuse in the industry. Likewise, we are proposing amendments to § 218.37 which refers to this definition and the placing of torpedoes when providing flag protection.

Section 218.37 Flag Protection

FRA is proposing to eliminate references to ''torpedoes'' as these are antiquated signaling devices which have fallen into disuse in the industry. The current rule requires each railroad to have in effect an operating rule which complies with this section, and thus contains references to the use of torpedoes, even though the railroad could meet other flagging requirements without ever needing to carry or use torpedoes. In this section, there are two paragraphs that reference torpedoes. Paragraph (a)(1)(iii) currently states, in part, that ''[w]hen a train stops on main track, flag protection against following trains on the same track must be provided as follows: A crew member with flagman's signals must immediately go back at least the distance prescribed by timetable or other instructions for the territory, *place at least two torpedoes on the rail at least 100 feet apart* and display one lighted fusee''. The language in italics is proposed for deletion. Paragraph (a)(1)(iv) currently states that ''[w]hen required by the railroad's operating

rules, a forward crew member with flagman's signals must protect the front of his train against opposing movements by immediately going forward at least the distance prescribed by timetable or other instructions for the territory *placing at least two torpedoes on the rail at least 100 feet apart,* displaying one lighted fusee, and remaining at that location until recalled''. Again, the language in italics is proposed for deletion. Elimination of the references to torpedoes does not eliminate the requirement that each railroad have in effect an operating rule that complies with the requirements in this section.

Subpart F—Handling Equipment, Switches and Derails

Section 218.91 Purpose and Scope

As previously explained in the **SUPPLEMENTARY INFORMATION**, FRA has identified that non-compliance with a small number of railroad operating rules has caused an inordinate percentage of total human factor caused accidents. FRA's purpose is first to establish clear and unambiguous procedures that will provide for the safety of railroad employees and the public. In the RSAC Working Group discussions that preceded the preparation of this proposed rule, FRA noted significant variation in basic safety procedures followed on participating railroads. Although some variation is necessary to address local conditions, the presence of extensive joint operations in the railroad industry makes it essential that certain common procedures apply. Joint operations are not new to the railroad industry, as evidenced by the historic role of terminal companies. However, the practice has more recently expanded through mergers and consequent awards of trackage rights and through the creation of hundreds of small railroads that are often provided access to larger railroad's facilities to facilitate efficient interchange of cars.

In order to support compliance with operating rules, it is essential that they be consistent, commonly understood, and applied in a predictable manner. Further, it must be understood that the rules may not be circumvented at the whim of a supervisor or employee to hasten completion of the work. The rules in this proposed subpart are intended to support these purposes.

In addition, making these rules mandatory from a Federal standpoint implies an enforcement mechanism to discourage non-compliance.

FRA proposes to standardize this small number of railroad operating rules by establishing minimum requirements. The minimum requirements proposed are based on accepted best practices and rules currently in use. Of course, railroads may choose to prescribe additional or more stringent requirements.

Section 218.93 Definitions

The definitions proposed in this section only have applicability to this subpart so it should be easier for the reader to locate each definition in this section rather than in subpart A—General, § 218.5.

FRA proposes several definitions that are consistent with other definitions of these terms in this chapter. These terms are *Associate Administrator for Safety, controlled siding, employee, highway-rail grade crossing, locomotive, pedestrian crossing, qualified,* and *roadway worker.* In an effort to be as clear as possible, FRA is including definitions of these terms in this subpart for the benefit of anyone unfamiliar with these terms.

FRA proposes adding a definition for *clearance point* because this term is necessary to describe an important concept that is used several times in this subpart. The definition of ''clearance point'' means the location near a turnout beyond which it is unsafe for passage by equipment or a person riding the side of a car on an adjacent track. While clearance points may be identified by marks on the rail, signs, or other visible identifiers, these points are often referring to an approximate location that will need to be deduced by an employee. FRA proposes that railroads implement procedures for identifying such approximate locations and for waiting to line hand-operated switches away until equipment that has entered the track has passed this point. *See* §§ 218.101(c) and 218.103(e). Without a definition of clearance point, it would be difficult to define what is meant by ''foul or fouling a track''. Through the proper identification of clearance points, employees can avoid collisions and personal injury to other employees riding the sides of cars.

FRA proposes a definition for *correspondence of crossover switches* that should be familiar to people working in the railroad industry. When straight tracks are connected so that rolling equipment may travel or ''cross over'' from one straight track to another, the equipment must pass over switches that control movement into the crossover track; these are the crossover switches. When both crossover switches are lined for the crossover, the crossover switches are in correspondence because the rolling equipment may cross over from one parallel track to another without running through either of the crossover switches. However, if one crossover switch is lined for the crossover and the other is lined for the straight track, the latter switch is lined against a train movement exiting the crossover track and thus is deemed out of correspondence. Similarly, if both crossover switches are lined for the straight track, the switches are considered in correspondence because no trains on the straight tracks should be diverted through a misaligned switch and potentially into another train or other rolling equipment.

FRA proposes adding a definition for *foul or fouling a track* because this term is necessary to describe an important concept that is used several times in this subpart. *Foul or fouling a track* means rolling equipment or on-track maintenance-of-way equipment is located such that any part of the equipment is between the clearance point and the switch point leading to the track on which the equipment is standing. In other words, when equipment is left standing on a track in such a manner that a movement on an adjacent track would collide with it, i.e., ''fouling a track,'' the potential for an accident is great. Equipment, or a person riding a side of a car, on adjacent track could strike the fouling equipment. This type of accident is usually a side-swipe type accident and the severity of the accident depends on the factors involved; e.g., the factors determining severity include, but are not limited to, the speed of the moving equipment, the type of equipment struck, the contents of the cars struck, whether a person was riding a car and whether an occupied locomotive struck the equipment. The issue of foul or fouling a track is addressed in § 218.101, where it is proposed that certain scenarios of fouling are avoidable and thus should be prohibited.

FRA proposes a broad definition for *hand-operated switch* to identify any type of switch when operated by manual manipulation, including when operated by a push button or radio control, when such switch is not protected by distant switch indicators, switch point indicators or other visual or audio verification that the switch points are lined for the intended route and fit properly. The definition includes all switches which are normally operated by manual manipulation of the switch lever. In this proposed rule, FRA has used the term ''hand-operated'' to characterize the types of switches normally operated by conductors, brakemen and switchmen whether or not there is some electronic aspect to the operation of the switch. Maintenance-of-way and mechanical

employees also have occasion to operate these switches. For lack of better terminology, we are characterizing these other types of switches as ''hand-operated'' even though a push button or radio control may be used to throw the switch; for these types of switches, the ''manual manipulation'' aspect is that the employee is required to throw the switch and the electronic aspect of the switch manipulation is primarily an option for avoiding personal injuries due to the throwing of a switch lever. FRA reserves the right to include provisions in the final rule to address these and related issues concerning power-assisted switches. FRA does not intend to address issues related to power-assisted switches operated from central consoles, whether within or outside of signaled territory, when so operated. Finally, the proposed requirements set forth for hand-operated switches in § 218.103 are unnecessary when an employee can verify that the switch points are lined for the intended route and fit properly, which can be accomplished without observing the switch points in the case where the switch is protected by distant switch indicators, switch point indicators or other visual or audio verification. For example, the two types of indicators provide a visual indication of the switch alignment and other electronic advancements are capable of sending a message to a receiver indicating the switch's alignment such that a visual check by an employee to determine that the switch is properly aligned would be redundant after receiving an electronic message that has already served that purpose.

FRA proposes adding a definition of *qualified* which is identical to the definition proposed for 49 CFR 217.4 in this notice. It is proposed that a person cannot be qualified unless he or she has successfully completed all ''instruction, training and examination'' programs required by both the railroad and this subpart. Where FRA specifies that a qualified employee is to do the work, it is because we want some assurance that the person either has actual knowledge, or may reasonably be expected to have knowledge, such that there is no question the person should be able to do the work in accordance with the railroad's operating rules. It is imperative that only employees who have been qualified should do such work that the proposed rule restricts to qualified employees because a railroad that allows unqualified employees to do such work is increasing the likelihood of an accident/incident.

FRA proposes a definition for *remote control operator* merely to aid in the clarification of shoving or pushing movement requirements involving remote control operations versus the requirements for conventional operations. Remote control operators are ''locomotive engineers'' per FRA's regulations found at 49 CFR part 240. Traditional engineers, i.e., those persons qualified to operate conventional locomotives, may be trained on remote control equipment—and are thus qualified for remote control operations; in that situation, the term remote control operator applies to the conventional engineer. Hence, the term ''remote control operator'' is not limited to those persons who only are certified to operate remote control locomotives but to anyone certified to operate such locomotives. The industry uses the shorthanded term ''remote control operator'' to refer to ''remote control locomotive operators;'' unless FRA receives comments to the contrary, we trust that no one is confused by the dropping of the reference to ''locomotives'' in the terminology.

FRA proposes a definition for *remote control zone* in order to permit a shoving or pushing operation that is safe and yet protected differently from conventional shoving or pushing operations. This zone is a term adopted by railroads that designate one or more segments of track, typically in a yard, where remote control operations can safely switch cars without point protection. Point protection is unnecessary because other safeguards are put in place. Although the location for a remote control zone may be permanent, the proposed regulation would require certain conditions to be met each time a zone is used for its intended purpose of allowing an operation without an employee assigned to protect the leading end in the direction of movement, i.e., the pull-out end, of the remote control movement. *See* § 218.99(d).

FRA has noticed some confusion over the ''remote control zone'' terminology, and that it might help to distinguish it from a ''remote control area.'' A ''zone'' is an integral part of remote control operations, whereas an ''area'' describes for informational purposes only a location within which remote control operations occur and does not directly affect such operations. The ''area'' is usually created by putting up signs to warn employees working in the vicinity that moving locomotives may be unmanned. The ''area'' is typically larger than the ''zone'' as it covers anywhere the remote control operation could take place. It is important to create these areas so that employees are warned to use care in moving around the yard with the knowledge that using hand signals to convey a message to a moving locomotive may be in vain as there may not be an engineer in the cab to see them. Thus, these terms do not mean the same thing and should not be used interchangeably.

FRA proposes a definition for *roadway maintenance activity* to distinguish between those duties prescribed for roadway workers, including movement of on-track maintenance-of-way equipment other than locomotives, and other types of duties that a roadway worker may perform which are not so limited. In other words, a person designated a ''roadway worker'' may engage in an activity that is not a ''roadway maintenance activity.'' This term is used to describe an exception to the general shoving and pushing requirements. Incidentally, FRA proposes using the term ''on-track maintenance-of-way equipment'' to distinguish between other types of maintenance-of-way equipment that may be left adjacent to a track—as opposed to ''on-track.''

FRA proposes a definition for *roadway worker in charge* in order to provide a generic title to the roadway worker who is in charge of a roadway work group. The designation of such a worker enables FRA to propose leaving main track switches in such a person's charge as well as being the conduit for switch alignment information when other workers in the group have operated switches. The communication among group members is similar in importance to the communication that is required between train crewmembers. FRA intends this term to have the same general usage as in subpart C of 49 CFR part 214.

FRA proposes a definition for *switchtender* because a few railroads still utilize a worker with responsibilities for lining specific switches for trains and a person with this position is not a crewmember. FRA proposes a definition for this term because we want to acknowledge that this type of worker may be qualified to operate switches, so switches can be safely left in a switchtender's charge. FRA has not defined ''switchtender'' in order to suggest that railroads create such positions or that there is any sort of requirement to employ switchtenders.

FRA proposes a definition for the term *track is clear* to describe a checklist of conditions which must be visually determined before a shoving or pushing movement may be initiated or continue. The visual determination must be made by a qualified employee who is typically a crewmember. If the four conditions for determining that the

track is clear are met, then if an accident occurs, it is unlikely to be the fault of the person making the determination. That is, when the portion of the track to be used is clear there should not be any rolling equipment, on-track maintenance-of-way equipment or conflicting movements that could collide with the shoving or pushing movement; there should be no intervening motor-vehicles or pedestrians to strike as all highway-rail grade crossings should be protected; there should be no intervening switches or derails to run through or over as they should all be properly lined for the intended movement; and, the shoving or pushing movement should not accidentally place cars on a connecting track if the portion of the track has sufficient room to contain the equipment being shoved or pushed.

Within the definition of track is clear are the proposed conditions for determining that intervening highway-rail grade crossings and pedestrian crossings are protected. As shoving or pushing movements typically occur without a locomotive engineer in a locomotive leading the movement, it is vital to protect crossings to prevent easily avoidable accidents. The proposed rule considers the crossing protected if a crossing has working crossing gates and the gates are in the fully lowered position. Whether or not there are working gates, a crossing may be protected by stationing a designated and qualified employee at the crossing who has the ability to communicate with trains. A third proposed option for protecting a crossing would only be available when crossings are equipped only with flashing lights or passive warning devices; in that situation, it is proposed that the crossing would be considered protected when it is clearly seen that no traffic is approaching or stopped at the crossing and the leading end of the movement over the crossing does not exceed 15 miles per hour.

Section 218.95 Instruction, Training and Examination

In paragraph (a), FRA proposes that each railroad maintain a written program that will qualify its employees for compliance with operating rules implementing the requirements of this subpart to the extent these requirements are pertinent to the employee's duties. Thus, the pool of employees that would need to be covered by the proposed program are those employees involved in shoving or pushing operations, remote control operations, and any operation where equipment might be left fouling a connecting track—as well as any employee that may be required to operate hand-operated switches and derails. The written program may be a stand-alone program or consolidated with the program of instruction required under § 217.11 of this chapter. FRA anticipates that most railroads would choose to consolidate this program with the part 217 requirement. Although FRA encourages the efficiencies consolidation is sure to bring, FRA's expectation is that, if the proposed rule is implemented, the consolidated written program will sufficiently stress the requirements of this subpart.

Proposed paragraphs (a)(1) and (a)(2) provide more details regarding what should be included in the written program. Paragraph (a)(1) would require that the program include instruction on consequences of non-compliance, i.e., that FRA can take enforcement action through civil penalties or disqualification from safety sensitive service. *See* 49 CFR part 209, subpart D—Disqualification Procedures. Paragraph (a)(2) proposes that the written program address the need to qualify employees on all aspects of the technology the employees will be utilizing when complying with the operating rules that would be required by this subpart. For example, employees may be expected to operate a variety of hand-operated switches and must be taught how to properly operate them as well as what to do if a malfunction or deviation is detected.

Paragraphs (a)(3) and (a)(4) address the implementation schedule for this subpart. Paragraph (a)(3) states that after 12 months from the publication date of the final rule, employees performing duties subject to these requirements shall be qualified per the minimum requirements in this subpart. However, it is further proposed under paragraph (a)(3) that employees who are hired during the 12 months following the publication date of the final rule would not be provided such a grace period; instead, it would be expected that new hires would receive the proper qualification training before being allowed to perform duties subject to the requirements of this subpart. Furthermore, under proposed paragraph (a)(4), after 12 months from the publication date of the final rule, FRA proposes no further grace period and that employees receive recurrence training at least every three years; FRA proposes this three year window because it is a standard industry practice to re-qualify employees on operating rules at least every three years. Finally, pursuant to paragraph (a)(5), FRA proposes that the record for each employee shall document qualification of employees under this subpart by including any records of required instruction, examination and training.

This section does not make specific reference to qualification of employees on the territory where they will be working, but it is implicit that this must be done where necessary to provide the knowledge required to comply with the subject rules. During the RSAC discussions, labor representatives asked for a more explicit recognition of this requirement. However, it was not immediately obvious to FRA personnel how this concept should be applied in the subpart F context. Unfortunately, time available to develop this issue in the RSAC Working Group was limited. Accordingly, FRA requests any further comment that is appropriate to develop this issue and reserves the right to include appropriate language in the final rule.

In paragraph (b), FRA proposes that qualification records required by this subpart be retained at a railroad's system headquarters and at the division headquarters, if any, where the employee is assigned. This will enable FRA to quickly obtain such qualification records upon request. FRA has not proposed a retention schedule for these records as we believe the proposed section mandates that at a minimum: (1) Records must be kept for each employee qualified and (2) when an employee is requalified, there is no longer a need for a railroad to retain the old record as it has been superceded by the new one.

Proposed paragraph (c) provides a mechanism for FRA to review and disapprove of a railroad's written program required under paragraph (a). It also proposes minimum procedures and structure to the review process. The proposal would require that the Associate Administrator for Safety only disapprove programs of instruction, training and examination required by this section for cause stated. As the disapproval decision is made for cause, it is significant for the railroad to understand exactly why FRA is disapproving the program; thus, FRA proposes that its notification of such disapproval be made in writing and specify the basis for the disapproval decision. If the Associate Administrator for Safety disapproves the program, it is proposed that the railroad be provided an opportunity of not less than 30 days to respond and to provide written and/or oral submissions in support of the program. It will be up to the Associate Administrator for Safety to grant additional time to respond in the rare instances that the railroad requests more than 30 days. The Associate Administrator for Safety shall render a

final decision in writing and the railroad shall be provided not less than 30 days to amend the program in accordance with the Associate Administrator for Safety's decision. Again, on a case-by-case basis, it is proposed that the Associate Administrator for Safety may provide a railroad with additional time to correct a disapproved program. Although enforcement action is always discretionary, FRA believes that enforcement action is warranted when a railroad fails to appropriately and timely amend its program.

The approach in proposed paragraph (c) recognizes that FRA will want to review such written programs during audits or investigations and that FRA should have the authority to request changes to the program if it does not meet the minimum requirements of this rule. The oversight authority vests with the Associate Administrator for Safety. Although FRA would have authority to review in detail each railroad's program, FRA does not intend to have each railroad submit its program for review and explicit approval. Rather, FRA intends to review the qualification programs of the major railroads over a multi-year cycle, in connection with review of the overall program of operating rules, to determine if they are effective. Among the factors that would be considered would be the extent to which the program was founded on appropriate task analysis, the completeness of the curriculum, the types of instructional methods, appropriateness of written and other tests, criteria for successful completion, and—most importantly—the ability of employees said to be qualified to apply the rules in practical situations.

The proposal is for the Associate Administrator for Safety to render a final decision in writing. FRA solicits comments regarding the need for further appeals within FRA. Finally, FRA solicits comments regarding whether proposed paragraph (c) should instead be moved to § 217.11 of this chapter in order to give the Associate Administrator for Safety explicit review over a railroad's entire program of instruction on operating rules.

Section 218.97 Good Faith Challenge Procedures

The main purpose of requiring that each railroad establish operating rules containing certain minimum requirements under this subpart is to ensure safe handling requirements of certain operations by employees where human factor caused accidents have historically occurred. Codifying these requirements will enable FRA to take enforcement action when necessary, and will therefore discourage non-compliance with these important safety rules. FRA is convinced that human factor caused accident rates and incidents of non-compliance would be significantly lower if each railroad were properly qualifying employees and consistently enforcing its own operating rules. FRA's perception is that on occasion some railroad officers are permissive in allowing occasional violations of operating rules in order to achieve short-term perceived efficiencies. For example, a railroad officer may order an employee to shove blind, i.e., without ensuring that the track is clear for the movement, in an effort to finish a job quickly and get a train out of the yard. If the move originated from a direct order by a railroad official, the employee might fear challenging the railroad official on the order or might have complied with so many similar orders in the past as to not perceive the danger in occasionally violating an operating rule. Another example could occur when an employee is told he or she may leave work early as soon as a particular assignment is complete. Rather than taking the longer but safer route to determine that a switch was left properly lined, the employee assumes the switch was left properly lined, even though some time has passed since the employee last observed it. This proposed rule is intended to check emergence of the culture that sometimes accepts some degree of non-compliance with a railroad's operating rules.

One essential aspect of changing this undesirable culture of complacency with some non-compliance is to establish better lines of communication between employees and railroad officers. An employee who is well trained and qualified to do the work, as FRA is proposing by requiring railroads to have a written program in section 218.95, should readily recognize when a railroad officer has given the employee an order that does not comply with the railroad's own operating rules. In order to address this issue, FRA is proposing good faith challenge procedures.

The good faith challenge procedures are about establishing dialogues between employees and railroad officials. A good faith challenge is initiated by an employee who believes that if he or she obeys a particular order issued by a railroad official, the employee would violate one or more of the operating rules required by this proposed subpart. At its core, the good faith challenge and its attendant procedures should force a railroad official to listen to an employee's concern regarding such an order and to reconsider the validity of the order. FRA has created a mechanism for appealing the first official's order to a second official in the situation where dialogue and compromise do not resolve the discrepancy. FRA refers to the challenge as the ''good faith'' challenge because we do not intend for employees to abuse it. For example, if several experienced employees in a particular yard were all to initiate separate challenges where no real dispute could be articulated, this concerted effort to create a work stoppage or slowdown would be in bad faith and would not shield the employees from the proposed protections required in each railroad's written procedures. Meanwhile, we expect bad faith challenges to never or rarely occur and for the challenge to provide, in part, for a dialogue between employee and supervisor that railroads should be permitting and encouraging without being prompted by regulation. Of course, if the good faith challenge is implemented and found to be regularly abused, FRA would consider amending or abolishing the challenge.

FRA's proposal to institute minimum good faith challenge procedures is not without precedent. FRA's current regulations require employers of roadway workers to ''have in place a written procedure to achieve prompt and equitable resolution of challenges''. 49 CFR 214.311 and 214.313. In FRA's experience, and in anecdotal information received by union representatives, the roadway worker good faith challenge has been a great success. To FRA's knowledge, all challenges by roadway workers have been immediately resolved between the roadway worker and the railroad official who issued the order. FRA originally considered a proposal that would mirror the roadway worker good faith challenge approach, and we certainly encourage interested parties to comment on whether that approach should be applied here.

FRA has proposed good faith challenge procedures that are more detailed than those established for roadway workers because the officer/employee relationship dynamic is different for roadway work versus operations work. That is, the strict chain of command is more prevalent in operations than roadway work. Thus, a supervisor of roadway work may be more accepting of a challenge than an operations supervisor, e.g., a yardmaster.

Paragraph (a) proposes general procedures for implementing a good faith challenge specific to the requirements of this subpart; railroads

or employers of railroad employees subject to this subpart, of course, are free to implement a good faith challenge in areas not subject to this subpart. Paragraph (a) proposes that each employer be responsible for the training and compliance by its employees with the requirements of this subpart. Obviously, railroads will have to instruct employees on all aspects of the good faith challenge or it will have no effect. FRA intends to take enforcement action where a railroad fails to properly instruct employees or a railroad's officers fail to comply with implementation of the good faith challenge procedures.

Paragraph (a)(1) proposes that each employer guarantee each employee the right to challenge in good faith as to whether the procedures that will be applied to accomplish a specific task comply with the requirements of this subpart or any operating rule relied upon to fulfill the requirements of this subpart. Thus, the proposal's applicability would only be for a challenge to any order that violates a requirement in proposed subpart F. Paragraph (a)(1) of the proposed rule would require a railroad to adopt and implement written procedures as the mechanism for instituting the good faith challenge. Such written procedures should not lead to protracted arguments that are unusually disruptive to operations as FRA proposes that each railroad's procedures provide for ''prompt'' challenges. FRA's expectations are that such challenges should be resolved in a matter of minutes, certainly not an hour or more. It is within this context that FRA also specified the concept that a railroad's written procedures provide for ''equitable resolution of challenges;'' by proposing this requirement, FRA meant for a railroad officer to give deference to an employee's challenge if the employee has suggested a safe way to do the work that is in compliance with the relevant operating rules. Follow-up to clarify the correct application of the rule leading to the challenge can be done at a later time or date so that a definitive answer may be provided by the railroad to the railroad officer and employee involved; e.g., a railroad's manager of operating rules may want to issue a bulletin generically outlining the challenge and the proper application of the rule. As a good practice, a railroad should take this extra step to clarify a definitive answer even if the employee does not request such a review, as provided for in proposed paragraph (c)(4), as it may be used as a learning experience for other employees.

Proposed paragraph (a)(2) requires that a railroad's good faith procedures indicate that the challenge is not intended to supplant any rights or remedies available to the employee under a collective bargaining agreement or under the statute providing for employee protections found at 49 U.S.C. 20109. The statutory provision permits an employee to file a complaint and testify against a railroad, as well as refuse to work because of hazardous conditions, without fear that a railroad will discriminate, discharge or otherwise take retribution against the employee. Additionally, the statute provides a mechanism for dispute resolution under the Railway Labor Act if the employee wishes to file a dispute, grievance or claim arising under the statutory protection provisions. In other words, an employee who makes a good faith challenge, but is ordered to do the work pursuant to proposed paragraph (c), may still refuse to work because of hazardous conditions and seek the protection prescribed in 49 U.S.C. 20109. While it is proposed that railroads indicate that the good faith written procedures are not intended to abridge these other rights and remedies, the proposed rule does not require that railroads must educate their employees on these other protections, because those protections are generally applicable to all aspects of railroad operations—not merely to the three areas of concern addressed by the subpart. Employees may want to take this opportunity to self-educate or unions may want to take this opportunity to remind their members of the other employee protections available that are separate from this rule.

Paragraph (a)(3) proposes that a railroad instruct affected employees on the good faith challenge procedures contemporaneously with the training railroads are required to provide under 49 CFR 217.11. The idea is that an employee's chance of understanding the proper application of the good faith challenge should be greatest at the time the employee is receiving instruction on the relevant operating rule(s). Of course, FRA does not expect a railroad to instruct an employee whose duties do not involve handling equipment, switches and derails. If an employee's duties change to include these activities, the railroad will have to provide the instruction prior to assigning the new duties.

The good faith challenge procedures are a critical component of FRA's proposal, which is narrowly tailored with the intention to drive down the number of accidents caused by human factors. Employees learn in the classroom but there are often so many topics covered in an operating rules class that it could be difficult for an employee to retain everything taught. To compensate, railroads traditionally provide operating rule books not only to put employees on notice that compliance with these rules is expected, but also, as a reference so that each employee can check the rules and be reminded of their requirements. In similar fashion, FRA proposes a requirement in paragraph (a)(4) that each railroad provide a copy of its written good faith procedures to each affected employee, as well as any amendments to its written procedures prior to the effective date of the amendments. Also, like any other record FRA requires, a railroad would need to make the written procedures available for inspection by FRA.

Paragraph (b) proposes additional procedures for each railroad to include in its written good faith procedures. Each of these more specific requirements lays the framework for what FRA envisions as a respectful dialogue between two individuals with differences of opinion on an operations issue with a safety component; the two individuals are, of course, an employee and a railroad officer.

Paragraph (b)(1) proposes granting each employee the right to challenge any directive which, based on the employee's good faith determination, would cause the employee to violate any requirement of this subpart or any operating rule relied upon to fulfill the requirements of this subpart. The good faith challenge procedures should eliminate any stigma employees have regarding challenging railroad officers on safety issues pertaining to handling equipment, switches and derails. Likewise, standardization of the challenge should cause railroad officers to truly reflect on the orders issued and whether any aspect of an order would result in non-compliance with the relevant railroad operating rules.

Paragraph (b)(2) specifies a proposed requirement that each railroad's good faith challenge procedures shall include a provision stating that the railroad will not seek retribution against an employee who makes a challenge in good faith. A properly instructed employee, exercising the right as specified in paragraph (b)(1), should feel confident that he or she will not be discharged, demoted, or otherwise discriminated against for making a legitimate challenge. Employees should be aware that this process will not protect the employee if the employee is proven to abuse the challenge. Meanwhile, merely being proven wrong regarding the

application of an operating rule does not prove abuse of the challenge. A challenge may be made in ''good faith'' if the employee is unsure of the correct application of the rule and seeks clarification. Similarly, if the employee misunderstands the rule or its application, that does not equate with raising a challenge in bad faith. If FRA's roadway worker good faith challenge is any indication of future compliance, we look forward to all challenges being made in good faith.

Paragraph (b)(3) proposes a requirement that the good faith written procedures state ''that no work is to be performed with respect to the challenged task until the challenge is resolved.'' This is similar to the roadway worker requirement that the employer's procedures allow the challenging employee ''to remain clear of the track until the challenge is resolved.'' 49 CFR 214.311(b). However, while this requirement has posed no problems for employers of roadway workers, FRA has added additional clarification and procedures to the proposal to make absolutely certain that we are not advocating a work stoppage or slowdown. As previously stated, the procedures are to be drafted so that they provide for a ''prompt'' resolution of challenges as provided in paragraph (a)(1).

The proposed regulation identifies four ways that a challenge may be ''resolved.'' One, we expect that some railroad officers when challenged will realize they made a mistake and will defer to the employee's suggested alternative method of operation that should be in compliance with the operating rules. Two, after making a challenge and receiving an explanation or recitation of the rule from the officer, an employee may likewise realize his or her mistake and quickly defer to the officer's directive. Three, in some situations, the challenge may lead to a discussion of options on how the task can be performed in compliance with the operating rules. That discussion may lead to a realization either that both persons were only partially correct or there is another option not previously asserted. Under those circumstances, an amicable resolution would be the advancement of a third option that was reached through communication and compromise, and is therefore satisfactory to both parties. The fourth way a challenge may be ''resolved'' is with a direct order to proceed with the work as initially ordered. A direct order should be a last resort and FRA requests comments regarding whether the rule should require that the written program indicate a preference that railroad officers always attempt to resolve good faith challenges amicably before seeking further review by a second railroad officer as proposed in paragraph (c).

For the direct order to proceed with the work as initially ordered, FRA proposes additional requirements for each railroad's written procedures that are intended to encourage a rational approach to the disputed issue. The written procedures shall provide for further review any time a challenge is resolved by issuing a direct order that is unacceptable to the challenging employee. FRA intends this further review be made by a railroad officer who cannot be unduly influenced by the officer who issued the initial order; we hope to accomplish that by requiring that the reviewing officer be a different officer who is not a subordinate of the officer who issued the initial order. As this review is envisioned as just a quick check with another officer, the employee shall not be required to do the work as ordered until the second, reviewing officer has made a decision. FRA requests comments regarding whether some smaller railroads may have difficulty complying with this proposed requirement and, if so, suggestions regarding alternative options for providing fair review would be appreciated. FRA also requests comments regarding whether the review should always be made directly to officers in the railroad's operating rules department, as improved communications has made the final railroad decision-makers more easily accessible for providing on-the-spot interpretative guidance.

The proposed written procedures shall also provide the employee with the right to document any protest and provide that the employee be advised that completing the work under protest and as ordered will not subject the employee to Federal civil penalties. These additional requirements are not just prudent but reflect existing statutory requirements. 49 U.S.C. 21304. These procedures do not supercede the statutory requirements nor do they exceed them. Thus, the time needed to document a protest should not pose a new burden on railroads.

The direct order procedures shall also provide the employee with the right to one more review by a railroad officer designated by name or title in the written procedures who will make the final interpretation of the applicable operating rule. It is not expected that this review be immediate but that the written procedures will specify a reasonable period after the incident in which the railroad will get back to the employee with a formal interpretation of the issue in question. This review can be as simple as a call from a railroad's manager of operating rules to the employee with an explanation. However, a call will not be sufficient if the employee requests that verification decision in writing.

During the RSAC Railroad Operating Rules Working Group meetings, AAR and APTA voiced opposition to the idea of the promulgation of a good faith challenge. Both associations were concerned that implementation of such a challenge would pose numerous logistical difficulties as well as a perceived high potential for abuse by employees. One concern raised was that on-time performance could easily be compromised if an employee raised a challenge and a quick compromise solution could not be reached. FRA does not believe it needs to address this issue as it is one that would need to be addressed by each individual railroad by setting up effective protocols for supervisors to follow when issuing direct orders to proceed; *i.e.*, each yardmaster or other supervisor who may need to issue a direct order to proceed should know who to contact in the event that an immediate review is requested. For example, a railroad may wish to provide contact lists to each supervisor of other supervisors so that each supervisor has multiple people to contact in the event a challenge needs immediate review. FRA welcomes suggestions on how to address this issue on smaller railroads with few supervisors available to conduct such immediate reviews.

Another perceived concern that arose from an FRA draft proposal before the RSAC's Railroad Operating Rules Working Group was that train delays could result from finding a second officer to provide the immediate review prior to execution of a direct order. Additional time delays would result if an employee had the right to immediately document the challenge before returning to work. FRA has addressed this issue by proposing in paragraph (c)(2) that the employee be afforded an opportunity to document the protest electronically (e.g., by radio transmission to be recorded) or in writing any time ''before the tour of duty is complete.''

AAR also asserted that FRA did not have the authority to promulgate such a challenge as a statutory provision vested employee protections under the Railway Labor Act. *See* 49 U.S.C. 20109(c). FRA respectfully disagrees. The statutory provision provides that ''a dispute, grievance, or claim arising under this section [§ 20109] is subject to resolution under section 3 of the Railway Labor

Act (45 U.S.C. 153)'' but does not preclude FRA from promulgating other employee protections when the underlying basis is to promote safer railroading. AAR also points to the legislative history in which the House of Representatives Committee on Interstate and Foreign Commerce commented that ''[t]he Committee intends * * * [the Railway Labor Act] to be the exclusive means for enforcing this section [and] * * * does not intend for FRA to be involved in this area.'' H.R. Rep. No. 96–1025, at 16 (1980). FRA agrees that it does not have any authority to resolve employee protection disputes under § 20109 and we have no intent to do so. FRA's proposal to institute good faith challenge procedures is not an attempt to vest FRA with the authority to resolve labor disputes but instead is an attempt to provide employees with a formal process by which they may, in good faith, challenge orders that they believe will require them to violate certain railroad operating rules. The good faith procedures do not amount to a refusal to work and do not supplant or supercede the statutory protections. Instead, FRA proposes to instill compliance with the good faith procedures through its well-defined enforcement policy (*see* 49 CFR part 209, app. A) and not by usurping the National Railroad Adjustment Board's authority to resolve labor disputes, grievances or claims.

Section 218.99 Shoving or Pushing Movements

Generally, in conventional operations, shoving or pushing movements occur when the controlling locomotive is not leading the movement because the locomotive engineer is not in a position to have an unobstructed view of the track in the direction of the shoving movement. However, in remote control operations, there may be an issue with respect to point protection in either direction of movement. The terms ''shoving'' and ''pushing'' have the same meaning but FRA uses both terms because our nation's railroads have split in the usage of each term. Proposed paragraph (a) would require that each railroad have in effect an operating rule that complies with the requirements in paragraphs (b) through (d) and that each railroad officer, supervisor, and employee shall uphold and comply with that rule. The purpose for proposing that each railroad officer, supervisor, and employee shall uphold and comply with that rule is so that all effected employees will be required to follow the operating rules FRA proposes that each railroad maintain as opposed to merely requiring that each railroad have in effect such a rule.

As specified in paragraphs (b) through (d), shoving or pushing movements can be made safely if precautions are taken. This proposed section states those minimum precautions and requires that each railroad have in effect specific operating rules incorporating the precautions. The precautions proposed take direct aim at those human factor causes that have been identified as causing the increasing trend of non-compliance and accidents. As specified in paragraph (e), there are other movements that could be considered shoving or pushing movements but FRA believes these other movements can be treated differently as they are safe if certain operating conditions are met.

Paragraph (b)(1) proposes that prior to rolling equipment being shoved or pushed, the locomotive engineer and the employee directing the move should be required to participate in a job briefing which will cover the means of communication to be used and how protection will be provided. The job briefing requirement in this proposed paragraph would require that the engineer (conventional or remote control operator) shall have a job briefing detailing the method of communication used to relay information, e.g., radio, hand signals, or pitch and catch. If the employee providing protection is not part of the crew, the job briefing shall include how that qualified employee will provide that protection; for example, if a yardmaster is the qualified employee, the conductor directing the move would explain in the briefing that the yardmaster intends to provide point protection by viewing a monitor that provides a real-time image of the track from a camera set up in the yard. Under this scenario, the yardmaster would be performing covered service under the hours of service laws.

Paragraph (b)(2) proposes requirements for establishing point protection during shoving or pushing movements. The proposal would require that only a crewmember or other qualified employee shall provide point protection. In this context, crewmembers or qualified employees include remote control operators working together, members of other train crews, and other employees, regardless of job title, who are qualified to perform the job (*see* definitions of ''employee'' and ''qualified'' in this proposed subpart). The requirements of this proposed section mandate work that is ''covered service'' under the hours of service laws. 49 U.S.C. 21101, *et seq.* Thus, to be a qualified employee, the employee will need to receive instruction and testing, be subject to Federal regulations controlling alcohol and drug use and hours of service recordkeeping provided for, respectively, in parts 217, 219 and 228 of this chapter. The purpose of requiring a qualified employee, as opposed to any employee, is to prevent persons that may not be qualified (e.g., taxi drivers, crane operators, or clerks) from making safety sensitive operating decisions without the proper instruction and safeguards in place. Incidently, if an unqualified person were to perform this work in violation of the proposed rule, the person would still have to be accounted for under the hours of service laws or the railroad would incur additional liability.

Paragraph (b)(2)(i) proposes a requirement that the employee providing point protection visually determine, for the duration of the shoving or pushing movement, that the track is clear within the range of vision or for the complete distance to be shoved or pushed. Shoving accidents often occur because a train crew makes a shoving movement without determining that the track is clear in the direction of movement. This proposed paragraph would address this problem by requiring an operating rule that keeps a qualified employee observing the track to make sure it is clear and remains clear. A definition of ''track is clear'' is proposed in § 218.93. Each railroad will need to incorporate this definition in its operating rules so that operating employees will be instructed on the proper way of making the determination that the track is clear. If the requirements for track is clear are met, there should be a drastic reduction in the number of shoving movement accidents.

Paragraph (b)(2)(i) proposes that a crewmember or other qualified employee shall visually determine, for the duration of the shoving or pushing movement, that the track is clear, either within the range of vision or for the complete distance to be shoved or pushed. This means that if the crewmember or other qualified employee responsible for controlling the shoving or pushing movement can directly and continuously observe the track for the entire movement to be shoved or pushed, the employee may initiate and continue the movement for the full distance of the movement. For example, if a shoving movement of less than 100 car lengths is to be made onto track that is capable of holding 100 cars and a crewmember or other qualified employee observes that the track is clear for the entire length of the track, the

employee may initiate movement onto or down the track; as the shoving movement continues, the employee will provide updates to the locomotive engineer, as necessary, until the entire movement is complete. Meanwhile, if the employee providing the visual determination can only see part of the way down the track to be shoved or pushed, the employee will only be permitted to initiate movement for the distance that the employee can directly and continuously observe. In this second example, the facts are the same except that there is curvature in the track that does not allow the observing employee to see more than 20 car lengths at a time; in this situation, the employee may initiate movement onto or down the track but must have either continuous visual contact with the engineer or be in radio communication with the engineer, so as to provide distance instruction on how far the engineer may safely shove, until the shoving or pushing movement is complete.

FRA notes that, inherent to the success of this procedure is compliance with restricted speed requirements, which limit movements within yard limits and on yard tracks to a speed that permits stopping within one-half the range of vision but not more than a stated speed (normally 15 or 20 miles per hour). Compliance with restricted speed is mandatory under subpart C of Part 218 for main track operations within yard limits, but the rule is silent with respect to yard and industry tracks. Commenters are asked to address whether, in order to effectively implement the protection for shoving moves embodied in this proposal, FRA should expressly incorporate restricted speed requirements.

FRA intended to provide railroads and qualified employees with the option of making the visual determination required in proposed paragraph (b)(2)(i) with the aid of monitored cameras or other technological means, provided that the technological means and attendant procedures provide an equivalent level of protection to that of a direct visual determination. Some concerns are that any monitored camera must have sufficient resolution and real time coverage to provide protection equal to direct visual determination. Concerning attendant procedures, one such procedure may be for an employee viewing a monitor to communicate updates to the locomotive engineer or controlling crewmember at appropriate intervals. Another attendant procedure may be the need to limit the monitoring employee so that ancillary duties would not greatly distract from the employee's ability to provide continuous visual determinations and communication. Other technological means may include, but are not limited to, real-time satellite imaging of sufficient resolution, a completely circuited track indicating track occupancy, and electronic switch position indicators.

The requirements listed in paragraph (b)(2)(ii) propose that a crewmember or other qualified employee give signals or instructions necessary to control the movement. Such signals or instructions may be made verbally, *i.e.*, either via face-to-face or radio communication. However, any effective method of communication is acceptable. For example, some acceptable forms of communication include, but are not limited to, hand signals, whistle signals, and electronic signals utilizing remote control technology.

In paragraph (c), FRA proposes to treat all remote control movements as shoving or pushing movements, except when the remote control operation is being conducted like a conventional pulling operation such that the operator controlling the movement is riding the leading locomotive in a position to observe conditions ahead in the direction of movement. FRA suggests that this treatment is necessary because the safe application of remote control operations warrants it. Those who are familiar with remote control switching operations should find these proposed requirements compatible with most current operating rules. Thus, FRA's intention is to require those rules which reflect best practices.

Paragraph (c) also proposes an additional requirement for remote control operations during shoving or pushing movements. This additional requirement is necessary so that the remote control operator, either directly or indirectly, can confirm that the movement is observed moving in the direction intended. If the remote control operator does not confirm or receive confirmation that the equipment is traveling in the intended direction, the operator must immediately stop the movement. Accident reports indicate that remote control operators who have forgotten which way the controlling locomotive is headed may unintentionally make a reverse movement when a forward movement was intended, or vice versa; had these operators been abiding by this proposed rule, the accidents would have been avoidable. FRA previously elaborated on this issue in the **SUPPLEMENTARY INFORMATION** section titled ''Situational Awareness.''

In paragraph (d), FRA recognizes that many railroads utilizing remote control technology will create a designated area of track, controlled by a remote control operator, that can make a remote control operation more efficient; this area is called a remote control zone and it is defined in this subpart. When a remote control zone is activated, a designated remote control operator has the authority to deny other movements entry into the tracks designated as within the zone. However, it is not until the remote control crewmembers determine that a particular segment meets the definition of ''track is clear'' that the operation may shove, push, or pull cars into the cleared track segment of the zone without providing point protection as proposed in paragraph (b)(2). The act of determining that the segment of track is clear is commonly referred to as ''conditioning the track'' or ''a conditioning run.''

Paragraph (d) proposes that the point protection required by proposed paragraph (b)(2) may be avoided for a remote control operation that is shoving within an activated remote control zone, as long as the movement will take place on the pull-out end, the track is clear for the movement, and the zone is not jointly occupied and has not been jointly occupied since the last determination that the track is clear. If conditions change, such that the track is no longer clear, point protection must either be provided or a new conditioning run conducted by the remote control operator(s). For example, each time that a remote control operator allows equipment, unrelated to the operator's remote control movements, to enter the activated zone, *i.e.*, the zone has been jointly occupied, the remote control crewmembers cannot be certain that the track segment into which a shove is planned is clear until another conditioning run is completed. FRA does not believe it is sufficient to rely on a communication from a member of another train crew in determining the track is clear as this situation has led to previous accidents.

Paragraph (d)(1) specifies that the remote control zone exception to the point protection requirements in paragraph (b)(2) are proposed only for remote control movements that are operated from a controlling locomotive on the leading end in the direction of movement. This describes a movement that is typically referred to as a remote control movement occurring on the pull-out end. When the controlling remote control locomotive is not located on the leading end in the direction of movement, it is proposed that the operation shall establish point protection as prescribed in paragraph (b)(2) regardless of whether the

operation is to take place within the remote control zone.

In paragraph (d)(2), FRA proposes to provide an acceptable method for one remote control crew to pass onto a relieving remote control crew an activated zone that meets the definition of track is clear. Some railroads currently allow for this transfer for efficiency purposes; otherwise, any relieving crew would need to do its own conditioning run prior to making shoving moves on the pull-out end of a remote control zone without point protection. As remote control crews must take their own safety into account when conditioning a zone and making sure the track remains clear, the transferring of a zone is likely to continue to be a safe practice. If FRA develops any accident data to suggest that this is an unsafe practice, we will reconsider this allowance and likely require that the relieving crew conduct its own conditioning run.

Paragraph (d)(3) proposes a determination that the zone may not be jointly occupied and has not been jointly occupied since the last determination that the track is clear. The second condition of that determination is arguably redundant given the first condition that the track is clear. However, FRA is rephrasing this extremely important requirement because we do not want railroads or employees to believe that it is acceptable to establish a zone, allow a train into the zone, and fail to recondition the track based on previous determinations. Even if another crew jointly occupied the zone and communicated to the remote control crew the position of each relevant switch and that the track in the zone is clear, this second-hand information has proven less reliable than information conveyed by remote control crews—so an exception is not justified here.

As specified in paragraph (e), shoving or pushing movements are safe under certain operating conditions and, thus, FRA proposes to exempt these listed operations from the requirements in paragraphs (b) through (d) under the specified conditions. One, proposed paragraph (e)(1) is a recommendation to exempt push-pull operations when operated from the leading end in the direction of movement because, if a cab control car is on the leading end of a movement and a locomotive engineer is operating the cab control car from the leading end, the operation is as safe as a conventional locomotive operation that does not involve shoving or pushing. Two, paragraph (e)(2) also describes a situation where a locomotive engineer is operating from the leading, controlling locomotive and it is only manned helper locomotives or distributed power, i.e., unmanned locomotives, that are shoving or pushing.

Pursuant to proposed paragraph (e)(3), the third operational exception to the proposed shoving or pushing minimum requirements set out in paragraphs (b) through (d) of this section is the allowance of the performance of roadway maintenance activity under the direct control of a roadway worker performing work in accordance with railroad operating rules specific to roadway workers. In other words, a crewmember or qualified employee is not required when a train crew is working under the direct control of a roadway worker and that roadway worker can provide adequate point protection. For example, if a ballast or work train is operated by a train crew, a roadway worker may direct the ballast or work train crew to move the train in order to perform the maintenance activity. To the contrary, this proposed exception would not permit a railroad to have an operating rule allowing a roadway worker to direct a train crew on logistical or revenue moves and such action would violate proposed paragraph (c) of this section.

Proposed paragraph (e)(4) permits an exception from the proposed shoving and pushing rules because few of the shoving or pushing accidents have occurred on main track. From 2002 through 2005, only about 5 percent of shoving or pushing accidents occurred on main track. However, in order to make this exemption work, a long list of conditions apply that would provide an equivalent level of safety to that of the proposed requirements found in paragraphs (b) through (d) of this section. The requirements should look familiar to the industry as the requirements follow commonly used railroad operating rules. *See* General Code of Operating Rules (GCOR) 5th Edition (effective Apr. 3, 2005), GCOR 6.5, 6.6, and 6.32 and, Northeast Operating Rules Advisory Committee (NORAC) 138c. The following clarification is provided for a few of the requirements that may not be quite as evident as the others. Paragraph (e)(4)(i)(A) proposes that if another movement or work authority is in effect within the same or overlapping limits, the shoving or pushing movement shall not be initiated until the leading end of the movement is protected by a qualified employee. Paragraph (e)(4)(ii) proposes that movement is limited to the train's authority because the danger of an accident increases substantially when a train shoves beyond the limits of its current authority. The proposed requirement in paragraph (e)(4)(iv) is met by meeting either (A), (B) or (C), as meeting any one of these three requirements should ensure safe movement into and over a highway-rail grade crossing or pedestrian crossing as those terms are defined in the definitions section of this subpart. To meet the requirement of proposed paragraph (e)(4)(iv)(B), a designated and qualified ''employee,'' as defined in this subpart, must be stationed at the crossing and have the capability to communicate with trains in sufficient time to inform the train of the condition of the crossing; the proposed rule does not specify the method of communication as the key issue is that the communication be effective. In paragraph (e)(4)(v), FRA uses the undefined terms ''interlocking limits'' or ''controlled point limits'' although FRA does refer to these terms elsewhere in this chapter; FRA did not define these terms because we believe the railroad industry is familiar with what we mean by these terms. They are commonly understood terms of art. *See* 49 CFR 236.753. In paragraph (e)(4)(v)(C), a crewmember is in a position to determine that the train's movement has occupied the circuit controlling a signal such that the crewmember has the ability to determine that it is the leading wheels of his or her own movement that has activated the signal circuit.

FRA is concerned that technology used to contain remote control operations within zones, where remote control operators cannot directly observe the far end of the pull-out movement, be sufficiently secure to prevent incursions into other rail operations. Although the rule text does not contain language on this point, FRA requests comment on whether such technology should be required to fail safe in design or at least include redundant safeguards. Should such technology be made subject to 49 CFR part 236, subpart H (the ''processor-based rule'')? FRA reserves the right to include appropriate restrictions on such technology in the final rule.

Section 218.101 Leaving Equipment in the Clear

In paragraph (a), FRA proposes that each railroad shall have in effect an operating rule which establishes minimum requirements for preventing equipment from fouling connecting tracks unsafely, and that each railroad implement procedures that will enable employees to identify when the equipment is fouling. In addition, each railroad officer, supervisor and employee shall uphold and comply with

that rule. The purpose for proposing that each railroad officer, supervisor, and employee shall uphold and comply with that rule is so that all effected employees will be required to follow the operating rules FRA proposes that each railroad maintain as opposed to merely requiring that each railroad have in effect such a rule. In order to fully understand FRA's intent, one must consider FRA's definitions of ''clearance point'' and ''foul or fouling a track'' in proposed section 218.93.

In paragraph (b), FRA proposes the general rule that equipment shall not be left where it will foul a connecting track or adjacent track but raises two exceptions. The exceptions are necessary because railroad operations would be nearly impossible without them. Safe operations permit some fouling of track under the conditions described in paragraphs (b)(1) and (b)(2). These exceptions are proposed considering that basic railroad operating rules and safety procedures, if properly applied, should be sufficient to prevent accidents under the two exceptions.

Paragraph (b)(1) proposes that it is permissible for equipment on a main track or siding to foul the main track or siding switch as long as the switch is lined for the track upon which the equipment is standing. For example, it is permissible under the proposal for a train on the main track to be stopped at an absolute signal with the rear of the train fouling a siding switch lined for the main track upon which the train is standing. Additionally, this would prohibit the switch that is being fouled from being thrown underneath the train while it is fouling the switch. Signal systems and main track authority rules should protect such movements from approaching trains.

Paragraph (b)(2) proposes that it is permissible for equipment that is standing on a yard or industry lead track (commonly referred to as a lead track, switching lead, or ladder track) to foul a yard or industry track if the switch is lined for the yard or industry track upon which the equipment is standing. Conversely, it is not permissible for equipment to be standing on a yard or industry track and foul the lead track, irregardless of the position of the switch on which the equipment is standing (fouling). Paragraph (b)(2) applies to industry sidings while paragraph (b)(1) does not. In simple terms, it is permissible to occupy a lead track and foul a track connected to it, but it is not permissible to occupy the connected track in a manner that fouls the lead track.

Paragraph (c) proposes that each railroad, whether at the system, division, or terminal level, shall implement procedures for instructing employees who handle equipment so that the employees can identify clearance points and avoid leaving equipment out to foul. One way to implement such procedures is to show employees that there are readily observable clearance points on or near the track, e.g., marks on the rails or ties indicating a clearance point. When clearance points are not identified on or near the track, railroads must institute procedures for instructing employees on how to calculate clearance points; e.g., a railroad may choose to implement a procedure requiring employees to stand next to the rail and extend an arm to simulate the width of equipment. Great care should be used in instituting procedures for determining clearance points so that the margin of error is appropriate where employees are permitted to ride the side of a car and as the clearance point would be bigger for employees with bigger or longer bodies than the average person. This proposed section is not intended to apply to close clearance as it relates to buildings, loading docks, or doorways, although a railroad may choose to provide procedures for implementing safe operations under such circumstances.

Section 218.103 Hand-Operated Switches and Derails

Paragraph (a) proposes that each railroad shall have in effect an operating rule which meets the minimum requirements set forth in this section. In addition, each railroad officer, supervisor and employee shall uphold and comply with that rule. The proposal contains some provisions that apply to all hand-operated switches and derails, some that apply only to hand-operated main track switches, some that apply only to hand-operated crossover switches and some that apply only to hand-operated derails. This represents a departure from FRA's current enforcement scheme which is limited to hand-operated switches in non-signaled territory as specified in EO 24.

Paragraph (b) proposes certain general rules for employees who operate or verify the position of a hand-operated switch or derail. For instance, paragraph (b)(1) proposes a fundamental requirement that an employee operating or verifying a hand-operated switch or derail's position shall be ''qualified,'' as that term is defined in this subpart; conversely, it would be easy for an unqualified person to make a mistake in switch alignment or fail to recognize a defective switch or derail because, unlike a qualified employee, the unqualified person is not trained on proper switch and derail operation or on how to detect a defective switch or derail. It is exactly these types of defective conditions that cause accidents and may be preventable by promulgating this proposed rule.

Paragraph (b)(2) proposes a requirement that each railroad have an operating rule warning employees that each person who operates or verifies the position of a hand-operated switch or derail is individually responsible for the position of the switch or derail in use. The purpose of this paragraph is to remind an employee that FRA may take enforcement action against the employee personally for a willful violation. FRA hopes that the personal liability aspect of this rule will reinforce among employees the critical importance of ensuring that hand-operated switches and derails are left properly lined before leaving a work site.

Paragraphs (b)(3) and (b)(4) contain proposals that would require employees to make certain observations. The requirements to ''visually ensure'' that hand-operated switches and derails are properly lined for the intended route and that the points fit properly and the target, if so equipped, corresponds with the switch's position specifies the need for the operating/verifying employee to take a good hard look at the switch or derail. For example, a proper observation would deduce whether the switch points fit properly against the stock rail, i.e. no gaps. The operating/verifying employee should certainly not be relying on second-hand knowledge of the switch or derail's position in verifying its position.

Paragraphs (b)(5) through (b)(8) propose that the operating/verifying employee make certain other firsthand assurances that are fundamental to safe railroading. These additional assurances require observation and physical testing to ensure the hand-operated switch or derail is properly secured. Paragraph (b)(5) proposes a requirement that if the switch or derail is equipped with a lock, hook or latch, it must be in the hasp, before making movements in either direction over the switch; this requirement should reduce accidental misalignments of hand-operated switches after initiating a movement and also permit the switch points from moving under the equipment. Proposed paragraph (b)(6) refers to physically testing a hand-operated switch or derail's lock to ensure it is secured; thus, the testing may be, but not limited to, pulling on the lock to ensure it is properly secured, ensuring the hook or latch securely fits into the hasp, and

that the switch or derail will not move unintentionally. This regulation does not require switches to be equipped with locks, hooks or latches. Paragraph (b)(7) proposes a requirement for an operating/verifying employee to ensure that switches are not operated while equipment is standing or moving over a switch. Operating a switch under a moving train or while equipment is standing over it is an obvious recipe for disaster but apparently occurs with enough frequency that we propose it be included in each railroad's operating rules. Under paragraph (b)(8), it would be a violation of this proposed rule for an employee to fail to lock, hook, or latch a switch, if so equipped, after the employee is finished using the switch. This means that if the switch is equipped with a latch or hook, it must be applied and secured. For locks, this means the lock is in the hasp, and the lock is locked. If it is a latch or hook, the latch or hook must be in the hasp. For purposes of this section, ''not in use'' means that there is either no crew or equipment in the vicinity of the switch or there is a crew in the vicinity of the switch but the crew has no intention of using the switch. Therefore, it must be locked, hooked, or latched, if so equipped.

Paragraph (c)(1) would provide regulatory authority over the hand-operated main track switches so that FRA regulates the positioning of all such switches; in contrast, FRA only prescribes requirements for hand-operated main track switches in non-signaled territory in EO 24. It is proposed that each railroad will retain discretion regarding the normal position of a hand-operated main track switch. Generally, railroad operating rules pertaining to the operation of switches provide that the normal position for a main track switch is lined and locked for movement on the main track when not in use; the purpose of this rule is so that trains traveling on main track will not be inadvertently diverted onto another track. (Of course, this can be avoided if all trains were required to approach all main track switches prepared to stop, but that requirement would impose a substantial burden on railroads under most circumstances and would also introduce other safety concerns.) FRA proposes to permit railroads to designate a different position as normal, as some operations may be more efficient with a hand-operated main track switch's ''normal'' position designated in what would otherwise be referred to as the ''reverse'' position. No matter what position a railroad designates as the normal position of each hand-operated main track switch, the proposal is for such designations to be made in writing. The railroad may designate the normal position of the switch in its operating rules, system special instructions, timetables, general orders, or any other written documentation that will provide adequate notice to employees operating and verifying hand-operated main track switches.

FRA is unaware of any railroads that do not require locking of main track switches as a safeguard against unauthorized use. Paragraph (c)(1) proposes that employees operating and verifying hand-operated main track switches should pay careful attention to ensure that these switches, when not in use, are lined and locked in that position except under two circumstances. The first circumstance under which it is proposed that the employee does not need to return the switch to the designated normal position is when the train dispatcher directs otherwise; thus, the train dispatcher, with movement control over that main track segment, directs the crew using the switch to leave the switch in other than the normal position. The dispatcher would then be responsible for the switch and must follow railroad operating procedures for the necessary protection of the switch. Such ''necessary protection'' entails that the dispatcher take steps to ensure that the next train crew approaching the switch has a track warrant informing that the switch has been left reversed. In some instances, the dispatcher will need to make a note in a log of train movements or other similar document to ensure that subsequent dispatchers have access to the reversed switch information. The second circumstance under which it is proposed that the employee does not need to return the switch to the designated normal position is when the switch is left in the charge of a crewmember of another train, a switchtender, or a roadway worker in charge. The reason this proposal should be an alternative safe procedure is because these other employees will likewise be individually responsible for the safe and proper operation of that hand-operated main track switch; the employees performing these jobs shall be qualified on operating switches and verifying switch position according to this proposal, so there should be no inherent problems with the transfer of responsibility for the switch. Regardless of the position of the switch when the train dispatcher directs otherwise or the switch is left in the charge of another qualified employee, it must still be locked, hooked or latched, if so equipped, when not in use, per proposed paragraph (b)(5).

Proposed paragraph (c)(2) requires that in non-signaled territory, before a train or engine service employee releases the limits of a main track authority and a hand-operated switch is used to clear the main track, and, prior to departing the train's location, certain conditions are required. This introductory sentence in proposed paragraph (c)(2) makes clear that it does not apply to maintenance-of-way employees who may be releasing the limits of a main track authority. It also proposes certain conditions on the employee releasing the limits prior to departing the train's location such that the employee should not be releasing the limits at another location; this proposed requirement is intended to prevent an employee from releasing the limits while located in the yard office or while traveling away from the train's location in a taxi. The purpose of requiring the employee releasing the limits to be located near the train is so that an employee who has any question about the condition of the switch has access to verifying its condition.

In paragraph (c)(2)(i), the first proposed condition that must be met is that the employee releasing the limits, after conducting a job briefing in accordance with paragraph (i)(3)(i) of this section, report to the train dispatcher that the hand-operated main track switch has been restored to its normal position and locked, unless the train dispatcher directs that the hand-operated main track switch be left lined and locked in the reverse position. The reference to another proposed paragraph in this section is intended to remind the employee releasing the limits that before a train or a train crew leaves the location where any hand-operated main track switch was operated, all crewmembers have a verbal communication to confirm the position of the switch. Soon after this job briefing, it is time to call the dispatcher and confirm the same information that should have been included in the train crew's job briefing. If the train dispatcher wants the employee to leave the switch in the reverse position, this communication is the train dispatcher's opportunity to inform the employee of such a request. It is proposed that the employee and dispatcher confirm with each other the switch position and that the switch is locked so that there is little chance that any trespasser without a key or bolt cutters could misalign the switch. As in proposed paragraph (c)(1)(i), a train dispatcher who directs that the switch be left in the reverse

position must take the protection necessary to ensure that the subsequent train crew that will approach the switch has a track warrant informing them of the switch's reverse position. Again, such ''necessary protection'' entails that the dispatcher take steps to ensure that the next train crew approaching the switch has a track warrant informing that the switch has been left reversed. In some instances, the dispatcher will need to make a note in a log of train movements or other similar document to ensure that subsequent dispatchers have access to the reversed switch information.

Paragraph (c)(2)(ii) and (iii) detail two more proposed conditions that must be met when main track authority limits are being prepared for release. The second proposed condition is that if the train crewmember's report of the switch position is correct, i.e., matches the operating rule or dispatchers direction, the train dispatcher shall repeat the reported switch position information to the employee releasing the limits and ask whether the repeated information is correct. Typically, railroad procedures require the train dispatcher to ask whether ''that is correct'' with regard to confirming this type of information, so the proposed regulation is intended to reflect those commonly used procedures. The third proposed condition is that the employee releasing the limits then confirm that this information is correct with the train dispatcher. Railroads and employees who currently release such limits should recognize that these requirements follow the traditional rules of such release. The purpose of the dispatcher and employee repeating the switch's condition is so that both employees can confirm that the other is repeating the correct information regarding the position of the switch and that it is locked.

The proposed rule retains the requirement in EO 24 that an employee releasing the limits of a main track authority in non-signaled territory communicate with the train dispatcher that all hand-operated main track switches operated have been restored to their normal position, unless the train dispatcher directs otherwise, but only to the extent that the switches are at the location where the limits are being released. With the proposed elimination of a SPAF, it would be difficult for an employee to recall the condition of any particular hand-operated main track switch operated and there would likely be a reaction for an employee to believe he or she left all such switches in proper position—without much opportunity to double-check the condition of those faraway switches at that time. As mentioned previously, accidents often occur where the limits are being released and that is why the proposed rule has placed emphasis on addressing the problem at those locations. The switches located at the point of release of the limits should be readily accessible for any employee who is unsure of the condition the switch was last left in. The proposed rule also adds the requirement that the employee report that the switch has been locked; locking of the main track switch should prevent easy access to unauthorized users.

The proposed requirements in paragraph (c)(2) carry over certain employee/dispatcher communication requirements from EO 24 that provide additional checks to ensure that hand-operated main track switches are left properly lined and locked. The proposed requirement is carefully tailored to address the switches at the location being released because FRA has determined that many of the accidents are occurring at that location. As several comments were received in response to EO 24 regarding an equivalent requirement carried over in proposed paragraph (c)(2), it should be helpful to describe what FRA means by the term ''releasing the limits of a main track authority.'' The term means releasing all or a portion of the limits (i.e., rolling up the limits) of an existing main track authority.

Paragraph (d) proposes that when rolling or on-track maintenance-of-way equipment is approaching a hand-operated switch or derail not lined for its intended movement, it shall not foul a track (see definition of ''foul or fouling a track'' in this subpart) until the switch or derail is properly lined for the intended movement. If the switch is intended to be trailed through, such as with a spring switch, or a yard type switch commonly referred to as a ''rubber switch'' or a ''run-through switch,'' movement shall not trail through the switch until the route is seen to be clear or the equipment has been granted movement authority by the employee in charge of that track segment or switch. Additionally, if a train, rolling equipment or on-track maintenance-of-way equipment is closely approaching a switch and an employee observes a conflicting movement also closely approaching the switch, the track with the approaching conflicting movement shall not be fouled.

In paragraph (e), FRA proposes a requirement that when equipment enters a track, the hand-operated switch to that track shall not be lined away from the track until that equipment has passed the ''clearance point'' (as defined in this subpart) of that track. If complied with, this proposed requirement will prevent an employee from operating a switch while equipment is fouling it, directly on it, or in close proximity to it. The purpose of this proposed requirement is to prevent injuries and accidents caused by improper operation of switches. Injuries should be reduced by this requirement because when switches are operated with equipment fouling a switch, or directly on a switch, a switch can be hard to operate or may be put under tension such that when an employee begins to operate the switch handle, it may move unexpectedly; thus, back injuries and other muscle strains may be reduced. In addition, accidents may be reduced as employees will not be allowed to operate switches under tension, i.e., when cars are on a switch.

Paragraph (f) also attempts to prevent accidents and injuries due to last minute misalignments of switches. Generally, after an employee lines a hand-operated switch to or from the main track, the safest position for the employee is away from the switch until the movement is complete. Some railroads specify a distance, e.g., that the employee shall stand at least 20 feet from that switch; FRA has proposed the 20 feet away requirement but requests comments on whether a distance should be specified. The key here is that each employee operating such a switch is far enough away that the employee could not operate the switch at the last moment, or even underneath the movement, if the employee remains a safe distance from the switch until the movement is complete. This rule does not apply during continuous switching operations and thus, this proposed requirement is not meant to apply to an employee who is switching a cut of cars into classification tracks.

Paragraph (g)(1) proposes the general rule that both hand-operated switches of a crossover shall be properly lined before equipment begins a crossover movement. Properly lined means that switches at both ends of the crossover are lined either for the crossover movement or both are lined for straight track. As train crews expect crossover switches to be properly lined, i.e., in correspondence (see definition of ''correspondence of crossover switches''), an accident can easily occur when crossover switches are out of correspondence. A related concern that is addressed in the proposal is what to do when equipment is traversing a crossover; the proposal would require that all equipment be clear of both ends

of the crossover before restoring the switches to the normal position. If employees apply a railroad operating rule that matches this proposal, the requirement should prevent the unintentional running through of crossover switches or unintentional movements onto another track that could potentially strike other rolling equipment. FRA recognizes that a safe operation is probable during continuous switching operations where only one crew is using both tracks connected by the crossover, so FRA has proposed an exception for that situation.

Paragraph (g)(2) identifies three exceptions to the general rule that hand-operated crossover switches should be in correspondence. The reason for the exceptions is that each operation is safe or safer with the crossover switches out of correspondence than in correspondence. That is, each exception identifies a situation in which employees on the track are protected by diverting trains and equipment without slowing down operations.

FRA is aware that some configurations of crossover switches are quite complicated, typically due to the location of adjacent or adjoining track and other attendant switches. Railroads should address these complicated configurations of crossover switches when employees are trained on the physical characteristics of the territory. Without proper training on how to apply a railroad's operating rule for correspondence of crossover switches, it will be difficult to hold employees accountable. However, railroads can be held accountable if employees do not properly apply such an operating rule and lack of training is one of the causes. Of course, if a railroad provided training but a violation was committed due to the complexities of the crossover configuration, FRA will exercise discretion regarding whether any enforcement action is necessary.

Paragraph (g)(2)(i)(A) proposes allowing mechanical department workers to line one end of a crossover away from the track under blue signal protection to allow workers on, under, or between rolling equipment on main track. *See* 49 CFR 218.27. Similarly, paragraph (g)(2)(i)(B) proposes allowing providing track protection for roadway workers on track that is considered ''inaccessible'' under § 214.327 of this chapter. FRA proposes paragraph (g)(2)(i)(C) to permit those railroads that have the technology, in centralized traffic control (CTC) territory to allow a signal maintainer to perform maintenance, testing or inspection of the switch at only one end of a crossover while continuing to operate trains over the other crossover switch. FRA does not have any evidence to suggest this exception is an unsafe practice. Finally, proposed paragraph (g)(2)(ii) states the obvious need for immediate restoration of the crossover switches to correspondence after the protection afforded by paragraph (g)(2)(i)(A), (B) or (C) is no longer necessary.

Paragraph (h) proposes the general rules for hand-operated derails. Paragraph (h)(1) proposes that the normal position of fixed derails is in the derailing position; but, a railroad may specify in its operating rules or special instructions that the normal position of a fixed derail is in the non-derailing position. Furthermore, fixed derails must remain in the derailing position until changed to allow movement onto the protected track; consequently, the proposed rule requires that the fixed derails shall be returned to the normal position once the movement is complete. If fixed derails are being used for protection of workers using blue signals, these proposed rules would not be applicable as FRA already has other regulations governing derails in that circumstance. *See* 49 CFR part 218, subpart B.

The entire purpose of a derail, whether fixed or portable, is to protect something or someone. Derails are typically used to prevent unauthorized equipment from rolling out onto main tracks in front of trains. They are also used to protect workers who are on a track to repair track or equipment. Derails may be placed in addition to warnings provided by signs, flags, gates, and notices in timetables and special instructions; thus, derails protect employees when other employees operating equipment or a train fail to heed these other warnings, or unattended equipment rolls freely. Although a properly applied derail that stops equipment or a train has done its job, FRA proposes in paragraph (h)(2) that enforcement action may be necessary when a railroad or person causes a movement to be made over a derail in the derailing position. As the typical situation involving movement over a derail occurs at low speeds and does not result in serious injuries or excessive damage to railroad property, the industry has accepted, in FRA's view, too much tolerance for this type of incident. Consequently, while FRA plans to use its enforcement discretion, the purpose of proposing this requirement is to reverse the permissive culture of the railroad industry that has accepted running over a derail. This proposed requirement is not intended to discourage the use of derails in protecting workers; thus, to the extent that railroads may try to mandate that employees stop using derails, to avoid the potential liability of FRA enforcement action, FRA would need to consider additional regulatory measures to mandate the use of derails. We are doubtful that such further regulatory measures would become necessary as the potential liability for employees injured when derails could have been used is probably enough of a deterrent to arbitrary elimination of operating rules pertaining to derail protection.

Paragraph (h)(3) proposes that if a hand-operated derail is equipped with a lock, when the derail is not in use, the lock must be in the hasp and secured. For the purpose of this section, not in use means that no crew is either operating over the derail or continuously or intermittently operating over the derail. If no crew or equipment is in the vicinity of the derail or there is no intent to use the derail, then it must be locked, if so equipped, in the designated normal position.

As previously mentioned in the **SUPPLEMENTARY INFORMATION** section titled ''Accident at Graniteville, SC and Safety Advisory 2005–01,'' NTSB found that catastrophic accidents, such as the one at Graniteville, SC, could be prevented by adequate job briefings. The proposal found in paragraph (i) would require each railroad to have its own rules and procedures governing the minimum requirements for a satisfactory job briefing, which to FRA's knowledge, nearly all railroads already do. It is essential that employees working together know exactly what each person's role is in the operation, what the methods of operation and protection will be, and the order in which segments of the job are to be accomplished. With such knowledge, one employee could recognize the mistakes of another and correct them before any operating rule violation or serious accident occurred.

Paragraph (i)(2) proposes frequent job briefings at important junctures. It is critical that employees know what is expected of them before they start working, know what is expected to happen if the work plan changes after work is initiated but before the work is completed, and to confirm whether all the work was completed to everyone's satisfaction and according to the operating rules. For experienced employees, each job briefing should not be a particularly long meeting; in fact, FRA expects that some job briefings may last less than one minute, but the length of an adequate briefing will most likely depend on the complexity of the job.

Just in case there is any confusion that the operation of a hand-operated main track switch is a job requiring briefings, FRA proposes requirements in paragraph (i)(3) for such briefings where employees should be engaging in meaningful communication. Thus, in paragraph (i)(3)(i), FRA specifically proposes that before a train leaves the location where any hand-operated main track switch was operated, all crewmembers shall have verbal communication to confirm the position of the switch. Similarly, paragraph (i)(3)(ii) addresses that communication amongst employees is vital when roadway workers are working within the same work limits and operate hand-operated main track switches. Thus, when any roadway work group is working under the protections of the specified form of working limits, FRA proposes that any employee who operates a hand-operated main track switch within such limits shall do so under the direction of the roadway worker in charge. Further, it is proposed that the employee operating the hand-operated main track switch shall report to the roadway worker in charge the position of all hand-operated main track switches the employee has operated to the roadway worker in charge prior to the expiration of the authority limits.

In some roadway work group situations, a roadway worker may be instructed during a job briefing to convey switch position information to an employee who is not the roadway worker in charge. In this alternative situation, the contact person is acting as an intermediary between the employee operating the switch and the roadway worker in charge. This intermediary person is commonly referred to as an ''employee in charge.'' FRA proposes that it shall be acceptable for the employee in charge to pass on the switch position information from the employee operating the switch to the roadway worker in charge without firsthand verification of the switch position. The important aspect of this requirement is that the work group members are communicating the switch position and not who conveys the information. FRA would appreciate comments on this aspect of the proposal although the allowance of this option should reflect the reality of current operations.

V. Regulatory Impact and Notices

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

This proposed rule has been evaluated in accordance with existing policies and procedures, and determined to be non-significant under both Executive Order 12866 and DOT policies and procedures (44 FR 11034; Feb. 26, 1979). FRA has prepared and placed in the docket a regulatory evaluation addressing the economic impact of this proposed rule. Document inspection and copying facilities are available at the Department of Transportation Central Docket Management Facility located in Room PL–401 on the Plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC 20590. Access to the docket may also be obtained electronically through the Web site for the DOT Docket Management System at *http://dms.dot.gov.* Photocopies may also be obtained by submitting a written request to the FRA Docket Clerk at Office of Chief Counsel, Stop 10, Federal Railroad Administration, 1120 Vermont Avenue, NW., Washington, DC 20590; please refer to Docket No. FRA–2005–23080. FRA invites comments on this regulatory evaluation.

FRA analyzed the foregoing NPRM and found that there will be relatively little change in the burden upon railroads, however, the FRA believes that much greater compliance with rules which are almost identical to what the railroads have promulgated as their own operating rules will likely result in a reduction in human factor accidents, especially those human factors causes most directly targeted by the rulemaking. FRA believes that most railroads can achieve average reductions of 35% in these accidents, because there is a large railroad with better than average compliance with its own operating rules which routinely has human factor accident rates 35% below the industry average. The costs of the foregoing are minimal, because most of the procedures mandated are already incorporated in the railroads' own operating rules. The biggest costs will be related to publication of changed language, and management of the operating rules programs. The rule would have even less impact on small entities, as they are excused from most of the burdens which regulate management of their operating rules testing programs. The NPRM would generate twenty-year discounted benefits of $191,189,965, and twenty-year discounted costs of $20,756,051, for a twenty-year discounted net benefit of $170,433,914, if the assumptions in this analysis are correct.

B. Regulatory Flexibility Act and Executive Order 13272

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) and Executive Order 13272 require a review of proposed and final rules to assess their impact on small entities. FRA has prepared and placed in the docket an Analysis of Impact on Small Entities (AISE) that assesses the small entity impact of this proposal. Document inspection and copying facilities are available at the DOT's Central Docket Management Facility located in Room PL–401 on the Plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC 20590. Docket material is also available for inspection on the Internet at *http://dms.dot.gov.* Photocopies may also be obtained by submitting a written request to the FRA Docket Clerk at Office of Chief Counsel, Stop 10, Federal Railroad Administration, 1120 Vermont Avenue, NW., Washington, DC 20590; please refer to Docket No. FRA–2006–25267.

FRA notes that the impact on small entities have been considered throughout the development of this NPRM both internally and through consultation within the RSAC forum, as described in Section II of this preamble. After the Railroad Operating Rules Working Group failed to reach a consensus recommendation, FRA reported the Working Group's unofficial areas of agreement and disagreement to the RSAC.

The AISE developed in connection with this NPRM concludes that this proposal would not have a significant economic impact on a substantial number of small entities. Thus, FRA certifies that this proposed rule is not expected to have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act or Executive Order 13272.

C. Paperwork Reduction Act

The information collection requirements in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995, 44 U.S.C. 3501 *et seq.* The sections that contain the new information collection requirements and the estimated time to fulfill each requirement are as follows:

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CFR Section - 49 CFR	Respondent Universe	Total Annual Responses	Average Time per Response	Total Annual Burden Hours	Total Annual Burden Cost
217.7 - Operating Rules ; Filing and Recordkeeping	1 New Railroad	1 submission	1 hour	1 hour	$40
- Filing rules, timetables, and special instructions	55 Railroads	165 amendments	20 minutes	55 hours	$2,200
- Amendments to operating rules, timetables, and timetable special instructions by Class I, Class II, Amtrak, and Commuter Railroads	20 New Railroads	20 submissions	55 minutes	18 hours	$720
- Class III and Other Railroads: Copy of Current Operating Rules, Timetables, and Special Instructions	632 Railroads	1,896 amendment	15 minutes	474 hours	$18,960
- Class III Railroads: Amendments to operating rules					
217.9 - Program of Operational Tests	687 Railroads	4,732 training sessions	8 hours	37,856 hours	$1,892,800
- Railroad and railroad officer testing responsibilities: Field Training					
- Written records of officer testing qualifications	687 Railroads	4,732 records	2 minutes	158 hours	$0 (Incl.RIA)
- Written program of operational tests/inspections	20 New Railroads	20 programs	9.92 hours	198 hours	$7,920
	55 Railroads	165 amendments	1.92 hours	317 hours	$12,680
- Amendments to operational tests/insp. programs	687 Railroads	9,180,000 rcds.	5 minutes	765,000 hours	$38,250,000
	687 Railroads	444 reviews	2 hours	888 hours	$0 (Incl.RIA)
- Records of individual tests/inspections	687 Railroads	4,732 designation + 74 reviews	5 seconds + 1 hour	7 hours + 37 hours	$0 (Incl.RIA)
- Review of tests/inspections/adjustments to the program of operational tests: Monthly reviews	687 Railroads	37 designation + 34 reviews	5 seconds + 1 hour	74 hours + 34 hours	$0 (Incl.RIA)
- Designation of railroad officers	687 Railroads	589 review rcds.	1 minute	10 hours	$0 (Incl.RIA)
- Quarterly review of accident/incident data (etc.)	13 Railroads	37 summary	61 minutes	38	
- Officer designations & Six Month review	687 Railroads				
- Passenger Railroads: Officer designations & six Month reviews	687 Railroads				
- Records retention: Periodic reviews	687 Railroads				
- Annual summary on operational tests/inspections: Summary records	687 Railroads				
- FRA disapproval of operational testing/insp.					

217.11 - Program of Instruction on Operating Rules	687 Railroads	130,000 instr. employees	8 hours	1,040,000 hours	$52,000,000
- Railroads instruction of employees	20 New Railroads	20 programs	8 hours		$6,400
- Current copy of employee periodic instruction prog.	687 Railroads	220 amendments	.92 hour	160 hours	$8,080
- Amendments to current employee instruction prog.				202 hours	
218.95 - Instruction, Training, and Examination					
- Records of instruction, training, examination	687 Railroads	98,000 empl. rcds	5 minutes	8,167 hours	$326,680
- FRA disapproval of program: Railroad responses	687 Railroads	50 submissions	1 hour	50 hours	$2,000
- Amended programs	687 Railroads	20 amended docs.	30 minutes	10 hours	$700
218.97 - Good Faith Challenge Procedures	687 Railroads	687 procedures	2	1,374	$0 (Incl.RIA)
- Copies to employees of good faith procedures	687 Railroads	130,000	hours	hours	$0 (Incl.RIA)
- Copies of amendments to good faith	687 Railroads	copies	6 minutes	13,000	$0
procedures	130,000 Employees	130,000 copies	3 minutes	hours	(Incl.RIA)
- Good faith challenges to railroad directives	687 Railroads	15 challenges	10 minutes	6,500	$0 (Incl.RIA)
- Resolution of challenges	687 Railroads	15 responses	5 minutes	hours	$0 (Incl.RIA)
- Direct order to proceed procedures: Immediate		5 reviews	15 minutes	3 hours	$0
review by railroad testing officer/employer	687 Railroads			1	(Incl.RIA)
- Documentation of employee protests to direct	687 Railroads	10 protest docs.	15 minutes	hour	
order	687 Railroads	20 copies	1 minute	1	$0 (Incl.RIA)
- Copies of protest documentation		5 advisories	1 minute	hour	
- Advisory to employees about completion of	687 Railroads				$0 (Incl.RIA)
work as ordered: Without penalty or		3 reviews	15	3 hours	$0
consequences			minutes	.33	(Incl.RIA)
- Further review by designated railroad officer				hour	
				.08	$0 (Incl.RIA)
				hour	
				1	
				hour	

218.99 - Shoving or Pushing Movements - Required operating rule compliant with this section - General Movement Requirements: Job briefings - Point Protection: Visual determination of clear track and corresponding signals or instructions - Remote Control Movements: Confirmations by Crew - Remote Control zone, exceptions to point protection: Determination/Communication track is clear - Operational exceptions: Dispatcher permitted movements that are verified	687 Railroads 100,000 RR employees 100,000 RR employees 100,000 RR employees 100,000 RR employees 6,000 RR Dispatchers	687 rule modific. 60,000 briefings 87,600,000 deter/instructions +87,600,000 signals 876,000 confirm. 876,000 deter/ communications 30,000 verified/ permitted movements	1 hour 1 minute 1 minute 1 minute 1 minute 1 minute	687 hours 1,000 hours 2,920,000 hrs. 14,600 hours 14,600 hours 500 hours	$0 (Incl.RIA) $50,000 $122,640,000 $613,200 $613,200 $21.000
218.101 - Leaving Equipment in the Clear - Operating Rule that Complies with this section	687 Railroads	687 amended op. rules	30 minutes	344 hours	$0 (Incl.RIA)
218.103 - Hand-Operated Switches and Derails - Operating Rule that Complies with this section - Release of limits of a main track authority: Acknowledgment by dispatcher and confirmation by employee with dispatcher - Job briefings: Minimum requirements specified in Operating Rules - Actual job briefings conducted by employees operating hand-operated main track switches - Additional job briefings for hand-operated main track switches - Exclusive track occupancy: Report of position of main track switches and conveyance of switch position to the roadway-worker-in-charge	687 Railroads 6,000 Dispatchers 632 Railroads 687 Railroads 687 Railroads	687 amended op. rules 60,000 acknowl.+ 60,000 confirmtns 632 amended rules 1,125,000 brfngs 60,000 briefings 100,000 reports + 100,000 convey-ances	1 hour 30 seconds + 5 seconds 1 hour 1 minute 1 minute 1 minute	687 hours 583 hours 632 hours 18,750 hours 1,000 hours 3,334 hours	$0 (Incl.RIA) $0 (Incl.RIA) $0 (Incl.RIA) $787,500 $0 (Incl.RIA) $0 (Incl.RIA)

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All estimates include the time for reviewing instructions; searching existing data sources; gathering or maintaining the needed data; and reviewing the information. Pursuant to 44 U.S.C. 3506(c)(2)(B), FRA solicits comments concerning: whether these information collection requirements are necessary for the proper performance of the functions of FRA, including whether the information has practical utility; the accuracy of FRA's estimates of the burden of the information collection requirements; the quality, utility, and clarity of the information to be collected; and whether the burden of collection of information on those who are to respond, including through the use of automated collection techniques or other forms of information technology, may be minimized. For information or a copy of the paperwork package submitted to OMB, contact Mr. Robert Brogan, Information Clearance Officer, at 202–493–6292.

Organizations and individuals desiring to submit comments on the collection of information requirements should direct them to Mr. Robert Brogan, Federal Railroad Administration, 1120 Vermont Avenue, NW., Mail Stop 17, Washington, DC 20590. Comments may also be submitted via e-mail to Mr. Brogan at the following address: *robert.brogan@fra.dot.gov.*

OMB is required to make a decision concerning the collection of information requirements contained in this proposed rule between 30 and 60 days after publication of this document in the **Federal Register**. Therefore, a comment to OMB is best assured of having its full effect if OMB receives it within 30 days of publication. The final rule will respond to any OMB or public comments on the information collection requirements contained in this proposal.

FRA is not authorized to impose a penalty on persons for violating information collection requirements which do not display a current OMB control number, if required. FRA intends to obtain current OMB control numbers for any new information collection requirements resulting from this rulemaking action prior to the effective date of a final rule. The OMB control number, when assigned, will be announced by separate notice in the **Federal Register**.

D. Federalism Implications

Executive Order 13132, ''Federalism'' (64 FR 43255, Aug. 10, 1999), requires FRA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' are defined in the Executive Order to include regulations that have ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.'' Under Executive Order 13132, the agency may not issue a regulation with federalism implications that imposes substantial direct compliance costs and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by State and local governments, the agency consults with State and local governments, or the agency consults with State and local government officials early in the process of developing the proposed regulation. Where a regulation has federalism implications and preempts State law, the agency seeks to consult with State and local officials in the process of developing the regulation.

This is a rule with preemptive effect. Subject to a limited exception for essentially local safety hazards, its requirements will establish a uniform Federal safety standard that must be met, and State requirements covering the same subject are displaced, whether those standards are in the form of State statutes, regulations, local ordinances, or other forms of State law, including State common law. Preemption is addressed in §§ 217.2 and 218.4, both titled ''Preemptive effect.'' As stated in the corresponding preamble language for §§ 217.2 and 218.4, section 20106 of Title 49 of the United States Code provides that all regulations prescribed by the Secretary related to railroad safety preempt any State law, regulation, or order covering the same subject matter, except a provision necessary to eliminate or reduce an essentially local safety hazard that is not incompatible with a Federal law, regulation, or order and that does not unreasonably burden interstate commerce. This is consistent with past practice at FRA, and within the Department of Transportation.

FRA has analyzed this final rule in accordance with the principles and criteria contained in Executive Order 13132. FRA notes that the above factors have been considered throughout the development of this NPRM both internally and through consultation within the RSAC forum, as described in Section II of this preamble. After the Railroad Operating Rules Working Group failed to reach a consensus recommendation, FRA reported the Working Group's unofficial areas of agreement and disagreement to the RSAC. The RSAC has as permanent voting members two organizations representing State and local interests: AASHTO and ASRSM. The RSAC regularly provides recommendations to the FRA Administrator for solutions to regulatory issues that reflect significant input from its State members. To date, FRA has received no indication of concerns about the federalism implications of this rulemaking from these representatives or from any other representative. States and other governments will be afforded opportunity to consult by virtue of this NPRM and comment period.

Please be advised that on April 27, 2005, FRA received from the State of California a petition for rulemaking on the subject of remote control operations referred to in the **SUPPLEMENTARY INFORMATION** section as ''Technology Aided Point Protection.'' The petition requested that FRA initiate a rulemaking ''to formally approve and establish rules affecting RCL [remote control locomotive] operations by railroads over public highway-rail at-grade crossings.'' California's petition did not raise an issue regarding preemption. On October 27, 2005, FRA denied California's rulemaking petition because it was procedurally deficient and it did not include sufficient information upon which to base a rulemaking proceeding. *See* Docket No. FRA–2005–21094 (found at *http://dms.dot.gov/*). Nevertheless, this proposed rule contains specific provisions of the kind requested in the petition.

For the foregoing reasons, FRA believes that this proposed rule is in accordance with the principles and criteria contained in Executive Order 13132.

E. Environmental Impact

FRA has evaluated this proposed regulation in accordance with its ''Procedures for Considering Environmental Impacts'' (FRA's Procedures) (64 FR 28545, May 26, 1999) as required by the National Environmental Policy Act (42 U.S.C. 4321 *et seq.*), other environmental statutes, Executive Orders, and related regulatory requirements. FRA has determined that this proposed regulation is not a major FRA action (requiring the preparation of an environmental impact statement or environmental assessment) because it is categorically excluded from detailed environmental review pursuant to section 4(c)(20) of FRA's Procedures. 64 FR 28547, May 26, 1999. In accordance with section 4(c) and (e) of FRA's

Procedures, the agency has further concluded that no extraordinary circumstances exist with respect to this regulation that might trigger the need for a more detailed environmental review. As a result, FRA finds that this proposed regulation is not a major Federal action significantly affecting the quality of the human environment.

F. Unfunded Mandates Act of 1995

Pursuant to Section 201 of the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4, 2 U.S.C. 1531), each Federal agency ''shall, unless otherwise prohibited by law, assess the effects of Federal regulatory actions on State, local, and tribal governments, and the private sector (other than to the extent that such regulations incorporate requirements specifically set forth in law).'' Section 202 of the Act (2 U.S.C. 1532) further requires that ''before promulgating any general notice of proposed rulemaking that is likely to result in the promulgation of any rule that includes any Federal mandate that may result in expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of $100,000,000 or more (adjusted annually for inflation) [currently $128,100,000] in any 1 year, and before promulgating any final rule for which a general notice of proposed rulemaking was published, the agency shall prepare a written statement'' detailing the effect on State, local, and tribal governments and the private sector. The proposed rule would not result in the expenditure, in the aggregate, of $128,100,000 or more in any one year, and thus preparation of such a statement is not required.

G. Energy Impact

Executive Order 13211 requires Federal agencies to prepare a Statement of Energy Effects for any ''significant energy action.'' 66 FR 28355 (May 22, 2001). Under the Executive Order, a ''significant energy action'' is defined as any action by an agency (normally published in the **Federal Register**) that promulgates or is expected to lead to the promulgation of a final rule or regulation, including notices of inquiry, advance notices of proposed rulemaking, and notices of proposed rulemaking: (1)(i) that is a significant regulatory action under Executive Order 12866 or any successor order, and (ii) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (2) that is designated by the Administrator of the Office of Information and Regulatory Affairs as a significant energy action. FRA has evaluated this NPRM in accordance with Executive Order 13211. FRA has determined that this NPRM is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Consequently, FRA has determined that this regulatory action is not a ''significant energy action'' within the meaning of Executive Order 13211.

H. Privacy Act

FRA wishes to inform all potential commenters that anyone is able to search the electronic form of all comments received into any agency docket by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (Volume 65, Number 70; Pages 19477–78) or you may visit *http://dms.dot.gov.*

List of Subjects

49 CFR Part 217

Railroad operating rules, Program of operational tests and inspections, Program of instruction on operating rules, and Recordkeeping.

49 CFR Part 218

Railroad operating practices, Handling equipment, switches and derails, Shoving or pushing movements, Main track switches, Crossover switches, Remote control locomotive operations, Good faith challenge procedures, Program of instruction, training and examination, and Job briefings.

The Proposed Rule

For the reasons discussed in the preamble, FRA proposes to amend parts 217 and 218 of Title 49, Code of Federal Regulations as follows:

PART 217—[AMENDED]

1. The authority citation for part 217 continues to read as follows:

Authority: 49 U.S.C. 20103, 20107; 28 U.S.C. 2461, note; and 49 CFR 1.49.

1A. Section 217.2 is added to read as follows:

§ 217.2 Preemptive effect.

Under 49 U.S.C. 20106, issuance of these regulations preempts any State law, regulation, or order covering the same subject matter, except an additional or more stringent law, regulation, or order that is necessary to eliminate or reduce an essentially local safety hazard; is not incompatible with a law, regulation, or order of the United States Government; and does not impose an unreasonable burden on interstate commerce.

2. Section 217.4 is amended by adding the following definitions of *Associate Administrator for Safety* and *Qualified* to read as follows:

§ 217.4 Definitions.

* * * * *

Associate Administrator for Safety means the Associate Administrator for Safety of the Federal Railroad Administration or that person's delegate as designated in writing.

* * * * *

Qualified means that a person has successfully completed all instruction, training and examination programs required by the railroad and this part and that the person, therefore, has actual knowledge or may reasonably be expected to have knowledge of the subject on which the person is expected to be competent.

* * * * *

3. Section 217.9 is revised to read as follows:

§ 217.9 Program of operational tests and inspections; recordkeeping.

(a) *Requirement to conduct operational tests and inspections.* Each railroad to which this part applies shall periodically conduct operational tests and inspections to determine the extent of compliance with its code of operating rules, timetables, and timetable special instructions, specifically including tests and inspections sufficient to verify compliance with the requirements of subpart F of part 218 of this chapter, in accordance with a written program retained at its system headquarters and at the division headquarters for each division where the tests are conducted.

(b) *Railroad and railroad testing officer responsibilities.* (1) Each railroad officer who conducts operational tests and inspections shall:

(i) Be qualified on the railroad's operating rules in accordance with § 217.11 of this part;

(ii) Be qualified on the operational testing program requirements and procedures relevant to the testing the officer will conduct;

(iii) Receive appropriate field training, as necessary to achieve proficiency, on each operational test that the officer is authorized to conduct; and

(iv) Conduct operational tests in accordance with the railroad's program of operational tests and inspections.

(2) Written records documenting qualification of each railroad testing officer shall be retained at the railroad's system headquarters and at the division headquarters for each division where the officer is assigned and made

available to representatives of the FRA for inspection and copying during normal business hours.

(c) *Written program of operational tests and inspections.* Beginning thirty (30) days before commencing operations, each railroad to which this part applies shall retain one copy of its current program for periodic performance of the operational tests and inspections required by paragraph (a) of this section and one copy of each subsequent amendment to such program. These records shall be retained at the system headquarters of the railroad and at the division headquarters for each division where the tests are conducted, for three calendar years after the end of the calendar year to which they relate. These records shall be made available to representatives of the Federal Railroad Administration for inspection and copying during normal business hours. The program shall—

(1) Provide for operational testing and inspection under the various operating conditions on the railroad with particular emphasis on those operating rules that cause or are likely to cause the most accidents or incidents, such as those accidents or incidents identified in the quarterly reviews, six month reviews, and the annual summaries as required under paragraphs (e) and (f) of this section, as applicable. The railroad's program shall specifically provide for a minimum number of tests per year that cover the requirements of part 218, subpart F of this chapter.

(2) Describe each type of operational test and inspection adopted, including the means and procedures used to carry it out;

(3) State the purpose of each type of operational test and inspection;

(4) State, according to operating divisions where applicable, the frequency with which each type of operational test and inspection is conducted;

(5) Designate an officer, or officers for each railroad with division headquarters, by name or job title, who shall be responsible for ensuring that the program of operational tests and inspections is properly implemented on a system-wide basis or, for officers responsible for a division, on a divisional basis. The designated officer's responsibility will include, but not be limited to, ensuring that the railroad's testing officers are directing their efforts in an appropriate manner to reduce accidents/incidents and that all required reviews and summaries are completed.

(6) Begin within thirty (30) days of the date of commencing operations; and

(7) Include a schedule for making the program fully operative within 210 days after it begins.

(d) *Records of individual tests and inspections.* Each railroad to which this part applies shall keep a record of the date, time, place, and result of each operational test and inspection that was performed in accordance with its program. Each record shall specify the officer administering the test and inspection and each employee tested. These records shall be retained at the system headquarters of the railroad and at the division headquarters for each division where the tests are conducted for one calendar year after the end of the calendar year to which they relate. These records shall be made available to representatives of the Federal Railroad Administration for inspection and copying during normal business hours.

(e) *Reviews of tests and inspections and adjustments to the program of operational tests.*

(1) *Reviews by railroads other than passenger railroads.* Each railroad to which this part applies, except for a railroad with less than 400,000 total employee work hours annually and except for a railroad subject to paragraph (e)(2) of this section, shall conduct periodic reviews and analyses as provided in this paragraph and shall retain, at each division headquarters, where applicable, and at its system headquarters, one copy of the following written reviews.

(i) *Monthly review.* The designated officer for each division headquarters, or system headquarters, if no division headquarters exists, shall conduct a written monthly review of the operational testing data for the division or system to determine compliance by the railroad testing officers with the railroad's program of operational tests and inspections required by paragraph (c) of this section. At a minimum, this monthly review shall include the name of each railroad testing officer, the number of tests and inspections conducted by each officer, and whether the officer conducted the minimum number of each type of test or inspection required by the railroad's program. Monthly reviews shall be completed no later than 15 days after the month has ended.

(ii) *Quarterly review.* The designated officer of each division headquarters, or system headquarters, if no division headquarters exists, shall conduct a written quarterly review of the accident/incident data, the results of prior operational tests and inspections, and other pertinent safety data for that division or system to identify the relevant operating rules related to those accidents/incidents that occurred during the quarter. Based upon the results of that review, the designated officer shall make any necessary adjustments to the tests and inspections required of railroad officers for the subsequent period(s). Quarterly reviews and adjustments shall be completed no later than 30 days after the quarter has ended.

(iii) *Six month review.* The designated officer of each system headquarters office responsible for development and administration of the program of operational tests shall conduct a review of the program of operational tests and inspections on a six month basis to ensure that it is being utilized as intended, that the monthly and quarterly reviews provided for in this paragraph have been properly completed, that appropriate adjustments have been made to the distribution of tests and inspections required, and that the railroad testing officers are appropriately directing their efforts. Six month reviews shall be completed no later than 30 days after the review period has ended.

(2) *Reviews by passenger railroads.* Not less than once every six months, the designated officers of the National Railroad Passenger Corporation and of each railroad providing commuter service in a metropolitan or suburban area shall conduct periodic reviews and analyses as provided in this paragraph and shall retain, at each division headquarters, where applicable, and at its system headquarters, one copy of the reviews. Each such review shall be completed within 30 days of the close of the period.

(i) The designated officer of each division headquarters, or system headquarters, if no division headquarters exists, shall conduct a written review of the operational testing data for the division or system to determine compliance by the railroad testing officers with its program of operational tests and inspections required by paragraph (c) of this section. At a minimum, this review shall include the name of each railroad testing officer, the number of tests and inspections conducted by each officer, and whether the officer conducted the minimum number of each type of test or inspection required by the railroad's program.

(ii) The designated officer of each division headquarters, or system headquarters, if no division headquarters exists, shall conduct a written review of accident/incident data, the results of prior operational tests and inspections, and other pertinent safety data for the division or

system to identify the relevant operating rules related to those accidents/incidents that occurred during the period. Based upon the results of that review, the designated officer shall make any necessary adjustments to the tests and inspections required of railroad officers for the subsequent period(s).

(iii) The designated officer of each system headquarters office responsible for development and administration of the program of operational tests shall conduct a review of the program of operational tests and inspections to ensure that it is being utilized as intended, that the other reviews provided for in this paragraph have been properly completed, that appropriate adjustments have been made to the distribution of tests and inspections required, and that the railroad testing officers are appropriately directing their efforts.

(3) *Records retention.* The records of periodic reviews required in paragraphs (e)(1) and (e)(2) of this section shall be retained for a period of one year after the end of the calendar year to which they relate and shall be made available to representatives of the Federal Railroad Administration for inspection and copying during normal business hours. All written records of reviews may be stored electronically.

(f) *Annual summary on operational tests and inspections.* Before March 1 of each calendar year, each railroad to which this part applies, except for a railroad with less than 400,000 total employee work hours annually, shall retain, at each of its division headquarters and at the system headquarters of the railroad, one copy of a written summary of the following with respect to its previous calendar year activities: The number, type, and result of each operational test and inspection, stated according to operating divisions where applicable, that was conducted as required by paragraphs (a) and (c) of this section. These records shall be retained for three calendar years after the end of the calendar year to which they relate and shall be made available to representatives of the FRA for inspection and copying during normal business hours.

(g) *Electronic recordkeeping.* Each railroad to which this part applies is authorized to retain by electronic recordkeeping the information prescribed in this section, provided that all of the following conditions are met:

(1) The railroad adequately limits and controls accessibility to such information retained in its electronic database system and identifies those individuals who have such access;

(2) The railroad has a terminal at the system headquarters and at each division headquarters;

(3) Each such terminal has a computer (i.e., monitor, central processing unit, and keyboard) and either a facsimile machine or a printer connected to the computer to retrieve and produce information in a usable format for immediate review by FRA representatives;

(4) The railroad has a designated representative who is authorized to authenticate retrieved information from the electronic system as true and accurate copies of the electronically kept records; and

(5) The railroad provides representatives of the FRA with immediate access to these records for inspection and copying during normal business hours and provides printouts of such records upon request.

(h) It shall be unlawful for any railroad to knowingly or any individual to willfully:

(1) Make, cause to be made, or participate in the making of a false entry on the record(s) required by this section; or

(2) Otherwise falsify such records through material misstatement, omission, or mutilation.

(i) Upon review of the program of operational tests and inspections required by this section, the Associate Administrator for Safety may, for cause stated, disapprove the program. Notification of such disapproval shall be made in writing and specify the basis for the disapproval decision. If the Associate Administrator for Safety disapproves the program, the railroad shall be provided an opportunity of not less than 30 days to respond and to provide written or oral submissions, or both, in support of the program. The Associate Administrator for Safety shall render a final decision in writing and the railroad shall be provided not less than 30 days to amend the program in accordance with the Associate Administrator for Safety's decision.

4. Appendix A to Part 217 is amended by revising the entry for § 217.9 to read as follows:

Appendix A to Part 217—Schedule of Civil Penalties

Section	Violation	Willful violation
* * * * * * *		
217.9 Operational tests and inspections:		
(a) Program	$7,500	$10,000
(b) Railroad and railroad testing officer responsibilities:		
(1) Failure to provide instruction, examination, or field training, or failure to conduct tests in accordance with program	$5,000	$7,500
(2) Records	$5,000	$7,500
(c) Record of Program	$5,000	$7,500
(d) Record of tests and inspections	$7,500	$10,000
(e) Failure to conduct or retain copy of:		
(1) Monthly review	$5,000	$7,500
(2) Quarterly review	$7,500	$10,000
(3) Six month review	$5,000	$7,500
(4) Records	$5,000	$7,500
(f) Annual summary	$7,500	$10,000
(h) Falsification of record	(—)	$11,000
(i) Failure to timely or appropriately amend program after disapproval	$7,500	$10,000
* * * * * * *		

PART 218—[AMENDED]

5. The authority citation for part 218 continues to read as follows:

Authority: 49 U.S.C. 20103, 20107; 28 U.S.C. 2461, note; and 49 CFR 1.49.

5A. Section 218.4 is added to read as follows:

§ 218.4 Preemptive effect.

Under 49 U.S.C. 20106, issuance of these regulations preempts any State law, regulation, or order covering the same subject matter, except an additional or more stringent law, regulation, or order that is necessary to eliminate or reduce an essentially local safety hazard; is not incompatible with a law, regulation, or order of the United States Government; and does not impose an unreasonable burden on interstate commerce.

6. Section 218.5 is amended by revising the definition of *Flagman's signals* to read as follows:

§ 218.5 Definitions.

* * * * *

Flagman's signals means a red flag by day and a white light at night, and fusees as prescribed in the railroad's operating rules.

* * * * *

7. Section 218.37 is amended by revising paragraphs (a)(1)(iii) and (a)(1)(iv) to read as follows:

§ 218.37 Flag protection.

(a) * * *

(1) * * *

(iii) When a train stops on main track, flag protection against following trains on the same track must be provided as follows: A crew member with flagman's signals must immediately go back at least the distance prescribed by timetable or other instructions for the territory and display one lighted fusee. He may then return one-half of the distance to his train where he must remain until he has stopped the approaching train or is recalled. When recalled, he must leave one lighted fusee and while returning to his train, he must also place single lighted fusees at intervals that do not exceed the burning time of the fusee. When the train departs, a crew member must leave one lighted fusee and until the train resumes speed not less than one-half the maximum authorized speed (including slow order limits) in that territory, he must drop off single lighted fusees at intervals that do not exceed the burning time of the fusee.

(iv) When required by the railroad's operating rules, a forward crew member with flagman's signals must protect the front of his train against opposing movements by immediately going forward at least the distance prescribed by timetable or other instructions for the territory, displaying one lighted fusee, and remaining at that location until recalled.

* * * * *

8. Part 218 is amended by adding subpart F to read as follows:

Subpart F—Handling Equipment, Switches and Derails

Sec.

Subpart F—Handling Equipment, Switches and Derails

§ 218.91 Purpose and scope.

(a) The purpose of this subpart is to prevent accidents and casualties that can result from the mishandling of equipment, switches and derails.

(b) This subpart prescribes minimum operating rule requirements for the handling of equipment, switches and derails. Each railroad may prescribe additional or more stringent requirements in its operating rules, timetables, timetable special instructions, and other special instructions.

§ 218.93 Definitions.

As used in this subpart—

Associate Administrator for Safety means the Associate Administrator for Safety of the Federal Railroad Administration or that person's delegate as designated in writing.

Clearance point means the location near a turnout beyond which it is unsafe for passage on an adjacent track(s). Where a person is permitted by a railroad's operating rules to ride the side of a car, a clearance point shall accommodate a person riding the side of a car.

Controlled siding means a siding within centralized traffic control (CTC) or interlocking limits where a signal indication authorizes the siding's use.

Correspondence of crossover switches means both crossover switches are lined for the crossover or both are lined for the straight tracks.

Employee means an individual who is engaged or compensated by a railroad or by a contractor to a railroad to perform any of the duties defined in this subpart.

Foul or fouling a track means rolling equipment or on-track maintenance-of-way equipment is located such that any part of the equipment is between the clearance point and the switch point leading to the track on which the equipment is standing.

Hand-operated switch means any type of switch when operated by manual manipulation, including when operated by a push button or radio control, when such switch is not protected by distant switch indicators, switch point indicators or other visual or audio verification that the switch points are lined for the intended route and fit properly.

Highway-rail grade crossing means a location where a public highway, road, street, or private roadway, including associated sidewalks and pathways, crosses one or more railroad tracks at grade.

Locomotive means a piece of on-track equipment (other than specialized roadway maintenance equipment or a dual purpose vehicle operating in accordance with § 240.104(a)(2)):

(1) With one or more propelling motors designed for moving other equipment;

(2) With one or more propelling motors designed to carry freight or passenger traffic or both; or

(3) Without propelling motors but with one or more control stands.

Pedestrian crossing means a separate designated sidewalk or pathway where pedestrians, but not vehicles, cross railroad tracks. Sidewalk crossings contiguous with, or separate but adjacent to, highway-rail grade crossings, are presumed to be part of the highway-rail grade crossings and are not considered pedestrian crossings.

Qualified means that a person has successfully completed all instruction, training and examination programs required by the railroad and this subpart and that the person, therefore, has actual knowledge or may reasonably be expected to have knowledge of the subject on which the person is expected to be competent.

Remote control operator means a locomotive engineer, as defined in § 240.5 of this chapter, certified by a railroad to operate remote control locomotives pursuant to § 240.107 of this chapter.

Remote control zone means one or more tracks within defined limits designated in the timetable special instructions, or other railroad publication, within which remote control locomotives, under certain circumstances specified in this part, may be operated without an employee assigned to protect the pull-out end of the remote control movement, i.e., the end on which the locomotive is located.

Roadway maintenance activity means any work limited to the duties prescribed for a roadway worker by definition in this section, including movement of on-track maintenance-of-way equipment other than locomotives.

Roadway worker means 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 facilities or roadway maintenance machinery on or near track or with the potential of fouling a track, and flagmen and watchmen/lookouts as defined in § 214.7 of this chapter.

Roadway worker in charge means a roadway worker who is qualified in accordance with § 214.353 of this chapter for the purpose of establishing on-track safety for roadway work groups.

Switchtender means a qualified employee assigned to handle switches at a specific location.

Track is clear means a crewmember or other qualified employee makes a visual determination that:

(1) The portion of the track to be used is unoccupied by rolling equipment, on-track maintenance-of-way equipment and conflicting movements;

(2) Intervening highway-rail grade crossings and pedestrian crossings are protected as follows:

(i) Crossing gates are in the fully lowered position; or

(ii) A designated and qualified employee is stationed at the crossing and has the ability to communicate with trains; or

(iii) At crossings equipped only with flashing lights or passive warning devices, when it is clearly seen that no traffic is approaching or stopped at the crossing and the leading end of the movement over the crossing does not exceed 15 miles per hour;

(3) Intervening switches and derails are properly lined for the intended movement; and

(4) The portion of the track has sufficient room to contain the equipment being shoved or pushed.

§ 218.95 Instruction, training and examination.

(a) *Program.* Effective [DATE 90 DAYS FOLLOWING THE EFFECTIVE DATE OF THE FINAL RULE], each railroad shall maintain a written program of instruction, training and examination of employees for compliance with operating rules implementing the requirements of this subpart to the extent these requirements are pertinent to the employee's duties. If all requirements of this subpart are satisfied, a railroad may consolidate any portion of the instruction, training or examination required by this subpart with the program of instruction required under § 217.11 of this chapter.

(1) The written program of instruction, training and examination shall specifically address the requirements of this subpart, as well as consequences of non-compliance.

(2) The written program of instruction, training and examination shall include training in any technology (and related procedures) employed to accomplish work subject to the particular requirements, actions required by the employee to enable and use the system, means to detect malfunctioning of equipment or deviations from proper procedures, actions to be taken when malfunctions or deviations are detected, and information needed to prevent unintentional interference with the proper functioning of such technology.

(3) *Implementation schedule for employees, generally.* Each employee performing duties subject to the requirements in this subpart shall be initially instructed, trained and examined prior to [DATE 12 MONTHS FROM PUBLICATION DATE OF THE FINAL RULE], and employees required to be instructed, trained and examined thereafter or hired during the 12-month period following [publication date of the final rule] shall be instructed, trained and examined before performing duties subject to the requirements in this subpart.

(4) After [DATE 12 MONTHS AFTER PUBLICATION DATE OF THE FINAL RULE], no employee shall perform work requiring compliance with the operating rules implementing the requirements of this subpart unless instructed, trained and examined on these rules within the previous three years.

(5) The records of instruction, examination and training required by this section shall document qualification of employees under this subpart.

(b) Written records documenting instruction, training and examination of each employee required by this subpart shall be retained at its system headquarters and at the division headquarters for each division where the employee is assigned and made available to representatives of the FRA for inspection and copying during normal business hours.

(c) Upon review of the program of instruction, training and examination required by this section, the Associate Administrator for Safety may, for cause stated, disapprove the program. Notification of such disapproval shall be made in writing and specify the basis for the disapproval decision. If the Associate Administrator for Safety disapproves the program, the railroad shall be provided an opportunity of not less than 30 days to respond and to provide written or oral submissions, or both, in support of the program. The Associate Administrator for Safety shall render a final decision in writing and the railroad shall be provided not less than 30 days to amend the program in accordance with the Associate Administrator for Safety's decision.

§ 218.97 Good faith challenge procedures.

(a) *General procedures.* Each employer is responsible for the training of and compliance by its employees with the requirements of this subpart.

(1) Each employer shall adopt and implement written procedures which guarantee each employee the right to challenge in good faith whether the procedures that will be used to accomplish a specific task comply with the requirements of this subpart or any operating rule relied upon to fulfill the requirements of this subpart. Each employer's written procedures shall provide for prompt and equitable resolution of challenges made in accordance with this subpart.

(2) The written procedures required by this section shall indicate that the good faith challenge described in paragraph (a)(1) of this section is not intended to abridge any rights or remedies available to the employee under 49 U.S.C. 20109 or a collective bargaining agreement.

(3) Each affected employee shall be instructed on the written procedures required by this paragraph as part of the training prescribed by § 217.11 of this chapter.

(4) A copy of the written procedures shall be provided to each affected employee and made available for inspection and copying by representatives of the FRA during normal business hours. The employer shall provide a copy of any amendments to its written procedures to each affected employee prior to its effective date.

(b) The written procedures shall—

(1) Grant each employee the right to challenge any directive which, based on the employee's good faith determination, would cause the employee to violate any requirement of this subpart or any operating rule relied upon to fulfill the requirements of this subpart;

(2) Provide that an employee making a good faith challenge shall not be

discharged or in any way discriminated against for making the challenge;

(3) Provide that no work is to be performed with respect to the challenged task until the challenge is resolved. A challenge may be resolved by: a railroad or employer officer's acceptance of the employee's request; an employee's acceptance of the directive; an employee's agreement to a compromise solution acceptable to the person issuing the directive; or a direct order to proceed with the work, as initially ordered. Such direct order shall be entered only in accordance with prior and subsequent procedures set forth in paragraph (c) of this section.

(c) The written procedures, prior appeal and subsequent procedures shall:

(1) Provide for immediate review by at least one officer of the railroad or employer prior to execution of a direct order. The review shall not be conducted by the person issuing the challenged directive, or his or her subordinate. The railroad or employer officer providing this immediate review shall have the same options for resolving the challenge as the initial officer, except that the reviewing officer's decision shall not be subject to further immediate review, unless provided for in a railroad's written procedures;

(2) Provide that the employee be afforded an opportunity to document electronically or in writing any protest to the direct order before the tour of duty is complete. The employee shall be afforded the opportunity to retain a copy of the protest;

(3) Provide that the employee be orally advised that completing the work as ordered will not subject the employee to penalties or consequences for non-compliance under this subpart; and

(4) Provide that the employee has a right to further review by a designated railroad or employer officer, within a specified period following completion of the duty tour, for the purpose of verifying the proper application of the regulation, law, procedure or rule in question. Upon request by the employee, that verification decision shall be made in writing to the employee.

§ 218.99 Shoving or pushing movements.

(a) Each railroad shall have in effect an operating rule which complies with the requirements of paragraphs (b) through (d) of this section, and, each railroad officer, supervisor and employee shall uphold and comply with that rule.

(b) *General movement requirements.*

(1) *Job briefing.* Rolling equipment shall not be shoved or pushed until the locomotive engineer has participated in a job briefing by the employee who will direct the move, who shall describe as part of the job briefing the means of communication to be used and how point protection will be provided.

(2) *Point Protection.* When rolling equipment is shoved or pushed, point protection shall be provided by a crewmember or other qualified employee:

(i) Visually determining, for the duration of the shoving or pushing movement, that the track is clear either within the range of vision or for the complete distance the equipment is to be shoved or pushed. The determination that the track is clear may be made with the aid of monitored cameras or other technological means, provided that it and the procedures for use provide an equivalent level of protection to that of a direct visual determination by an employee properly positioned to make the observation; and

(ii) Giving signals or instructions necessary to control the movement.

(c) *Remote control movement requirements.* All remote control movements are considered shoving or pushing movements, except when the remote control operator controlling the movement is riding the leading end of the leading locomotive in a position to visually determine conditions in the direction of movement. In addition to the other requirements of this section, when initiating a remote control shoving or pushing movement:

(1) The remote control operator shall visually determine the direction the equipment moves; or

(2) A member of the crew shall visually determine the direction the equipment moves and confirm the direction with the remote control operator. If no confirmation is received, the movement shall be immediately stopped.

(d) *Remote control zone, exception to point protection requirement.* When a remote control zone is activated, point protection, as prescribed in paragraph (b)(2) of this section, is not required under the following conditions:

(1) The remote control movement is operated from a controlling locomotive on the leading end in the direction of movement, i.e., the movement occurs on the pull-out end;

(2) The track is clear for the movement as determined by the remote control crewmembers or crewmembers from a relieved remote control crew who have transferred the remote control zone directly to the relieving crew; and

(3) The remote control zone is not jointly occupied and has not been jointly occupied since the last determination that the track is clear.

(e) *Operational exceptions.* A railroad may adopt operating rules other than those required by paragraphs (b) through (d) of this section in the following circumstances:

(1) Push-pull operations when operated from the leading end in the direction of movement, i.e., push mode;

(2) Shoving or pushing operations with manned helper locomotives or distributed power locomotives when operated from the leading end in the direction of movement;

(3) During the performance of roadway maintenance activity under the direct control of a roadway worker performing work in accordance with railroad operating rules specific to roadway workers; or

(4) When the leading end of a shoving movement is on a main track or controlled siding, under the following conditions:

(i) The train dispatcher gives permission to make the movement and verifies that:

(A) Another movement or work authority is not in effect within the same or overlapping limits unless conflicting movements are protected; and

(B) A main track is not removed from service by a work authority within the same or overlapping limits;

(ii) Movement is limited to the train's authority;

(iii) Movement shall not be made into or within yard limits, restricted limits, drawbridges, or work authority limits;

(iv) Movement shall not enter or foul a highway-rail grade crossing or pedestrian crossing except when:

(A) Crossing gates are in the fully lowered position; or

(B) A designated and qualified employee is stationed at the crossing and has the ability to communicate with trains; or

(C) At crossings equipped only with flashing lights or passive warning devices, when it is clearly seen that no traffic is approaching or stopped at the crossing and the leading end of the movement over the crossing does not exceed 15 miles per hour; and

(v) Movement shall not be made into or within interlocking limits or controlled point limits unless the following conditions are met:

(A) The signal governing movement is more favorable than restricting aspect;

(B) Each signal governing movement into and through interlocking limits or controlled point limits shall be continuously observed by a member of that crew;

(C) The crewmember is in a position to determine that the train's movement

has occupied the circuit controlling that signal as evidenced by that signal assuming its most restrictive aspect; and

(D) Movement does not exceed the train's length.

§ 218.101 Leaving equipment in the clear.

(a) Each railroad shall have in effect an operating rule which complies with the requirements of paragraphs (b) and (c) of this section and each railroad officer, supervisor and employee shall uphold and comply with that rule.

(b) Equipment shall not be left where it will foul a connecting track unless:

(1) The equipment is standing on a main track or siding and the main track or siding switch that the equipment is fouling is lined for the main track or siding on which the equipment is standing; or

(2) The equipment is standing on a yard or industry switching lead track and the yard or industry track switch that the equipment is fouling is lined for the yard or industry switching lead track on which the equipment is standing.

(c) Each railroad shall implement procedures that enable employees to identify clearance points and a means to identify locations where clearance points will not permit a person to safely ride on the side of a car.

§ 218.103 Hand-operated switches and derails.

(a) Each railroad shall have in effect an operating rule which complies with the requirements set forth in this section and each railroad officer, supervisor and employee shall uphold and comply with that rule.

(b) *General.* Employees operating or verifying the position of a hand-operated switch or derail shall:

(1) Be qualified on the railroad's operating rules relating to their operation;

(2) Be individually responsible for the position of the switch or derail in use;

(3) Visually ensure that switches and derails are properly lined for the intended route;

(4) Visually ensure that the points fit properly and the target, if so equipped, corresponds with the switch's position;

(5) Ensure that the switch is latched or secured by placing the lock or hook, if so equipped, in the hasp before making movements in either direction over the switch;

(6) After locking, hooking or latching a switch or derail that is so equipped, test the lock, hook or latch to ensure it is secured;

(7) Ensure that switches are not operated while equipment is standing or moving over a switch; and

(8) Ensure that when not in use, switches are locked, hooked, or latched if so equipped.

(c) *Hand-operated Main Track Switches.* (1) The normal position of a hand-operated main track switch shall be designated by the railroad in writing and the switch shall be lined and locked in that position when not in use except when:

(i) The train dispatcher directs otherwise with respect to the position of a hand-operated main track switch and the necessary protection is provided; or

(ii) The hand-operated switch is left in the charge of a crewmember of another train, a switchtender, or a roadway worker in charge.

(2) *Releasing Authority Limits.* In non-signaled territory, before a train or engine service employee releases the limits of a main track authority and a hand-operated switch is used to clear the main track, and, prior to departing the train's location, the following conditions are required:

(i) The employee releasing the limits, after conducting a job briefing in accordance with paragraph (i)(3)(i) of this section, shall report to the train dispatcher that the hand-operated main track switch has been restored to its normal position and locked, unless the train dispatcher directs that the hand-operated main track switch be left lined and locked in the reverse position and the necessary protection is provided;

(ii) If the report of the switch position is correct, the train dispatcher shall repeat the reported switch position information to the employee releasing the limits and ask whether that is correct; and

(iii) The employee releasing the limits shall then confirm to the train dispatcher that this information is correct.

(d) Rolling and on-track maintenance-of-way equipment shall not foul a track until all hand-operated switches and derails connected with the movement are properly lined, or in the case of hand-operated switches designed to be trailed through, until the intended route is seen to be clear or the train has been granted movement authority. When a conflicting movement is approaching a hand-operated switch, the track shall not be fouled or the switch or derail operated.

(e) When equipment enters a track, the hand-operated switch to that track shall not be lined away from the track until the equipment has passed the clearance point in the track.

(f) Except during continuous switching operations, when an employee lines a hand-operated switch to let equipment enter or leave the main track, the employee shall move at least twenty (20) feet away from the switch and not return to the switch until the movement is complete.

(g)(1) *Hand-operated crossover switches, generally.* Both hand-operated switches of a crossover shall be properly lined before equipment begins a crossover movement. A crossover movement shall be completed before either hand-operated switch is restored to normal position, except when one crew is using both tracks connected by the crossover during continuous switching operations.

(2) *Correspondence of hand-operated crossover switches.* (i) Hand-operated crossover switches shall be left in corresponding position except when:

(A) Used to provide blue signal protection under § 218.27 of this part; or

(B) Used for inaccessible track protection under § 214.327 of this chapter; or

(C) Performing maintenance, testing or inspection of hand-operated crossover switches in centralized traffic control (CTC) territory.

(ii) Hand-operated crossover switches shall be immediately restored to correspondence after protection is no longer required.

(h) *Hand-operated derails.* (1) The normal position of fixed derails is in the derailing position except as provided in part 218, subpart B of this chapter, or the railroad's operating rules or special instructions. Derails shall be kept in that position except when changed to permit movement, whether or not any equipment is on the tracks they protect.

(2) Movement shall not be made over a derail in the derailing position.

(3) Derails equipped with locks shall be locked, when not in use.

(i) *Job briefings.* (1) Minimum requirements necessary for an adequate job briefing shall be specified.

(2) Job briefings shall be conducted by employees operating hand-operated switches before work is begun, each time a work plan is changed and at completion of the work.

(3) *Additional job briefing requirements for hand-operated main track switches.*

(i) Before a train or a train crew leaves the location where any hand-operated main track switch was operated, all crewmembers shall have verbal communication to confirm the position of the switch.

(ii) In the case of exclusive track occupancy authority established under § 214.321, foul time under § 214.323, or train coordination under § 214.325, when a roadway worker qualified to operate hand-operated main track switches is granted permission by the

roadway worker in charge to occupy or otherwise use the limits of the exclusive track occupancy, such employee receiving permission to occupy the working limits shall report the position of any such switches operated upon expiration of the authority limits to the roadway worker in charge or to a designated intermediary employee who shall convey the switch position to the roadway worker in charge.

9. Appendix A to Part 218 is amended by adding a heading for subpart F and entries for §§ 218.95, 218.97, 218.99, 218.101, and 218.103 to read as follows:

Appendix A to Part 218—Schedule of Civil Penalties

Section	Violation	Willful violation
* * * * * * *		
Subpart F—Handling Equipment, Switches and Derails:		
218.95 Instruction, Training and Examination:		
(a) Program	$7,500	$10,000
(b) Records	5,000	7,500
(c) Failure to timely or appropriately amend program after disapproval	7,500	10,000
218.97 Good Faith Challenge Procedures:		
(a–c) Failure to adopt or implement procedures	7,500	10,000
218.99 Shoving or Pushing Movements:		
(a) Failure to implement required operating rule	7,500	10,000
(b) Failure to conduct job briefing, use a qualified employee, or establish protect protection	7,500	10,000
(c) Failure to observe equipment direction	7,500	10,000
(d) Failure to establish remote control zone in lieu of point protection	7,500	10,000
(e) Failure to abide by operational exception requirements	7,500	10,000
218.101 Leaving Equipment in the Clear:		
(a) Failure to implement required operating rule	7,500	10,000
(b) Equipment left improperly fouling	7,500	10,000
(c) Failure to implement procedures for identifying clearance points	7,500	10,000
218.103 Switches and Derails:		
(a) Failure to implement required operating rule	7,500	10,000
(b–i) Railroad and employee failures	5,000	7,500

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Joseph H. Boardman,

Administrator.

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