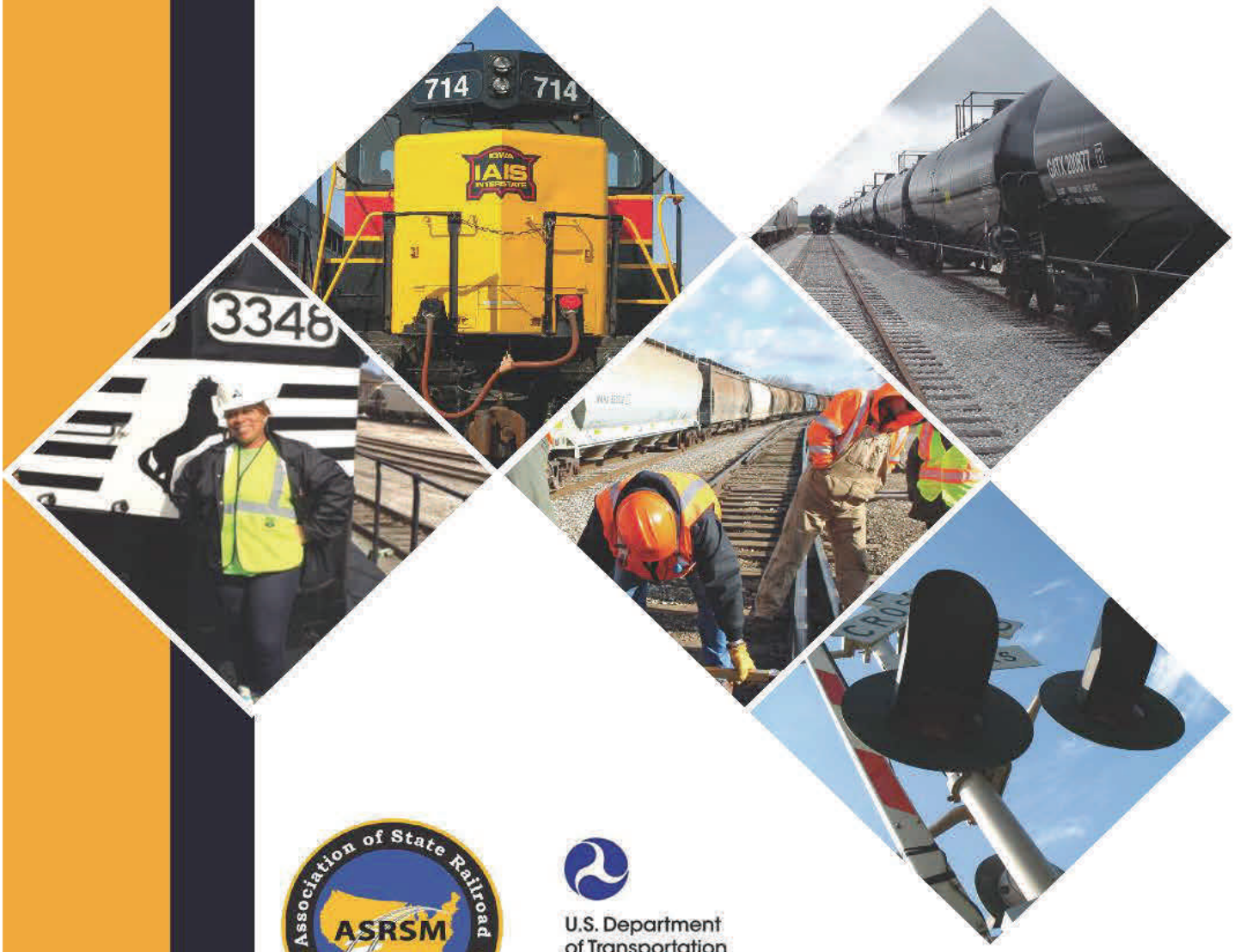
# STATE RAIL SAFETY PARTICIPATION PROGRAM

## MANAGER'S HANDBOOK




Association of State Railroad Safety Managers
ASRSM

U.S. Department of Transportation
Federal Railroad Administration

April 2016

# Managers Handbook

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# Preface

The State Managers Handbook is a reference document for current and prospective State managers involved in the Federal Railroad Administration's (FRA) State Rail Safety Participation Program. The Handbook provides practical program information, outlines program policies and procedures, and provides basic information about rail safety regulation. This information is intended to outline program processes and guide decisions that State managers must make in the course of managing an important public safety program, directing the activities of technical experts working in a safety-critical environment, and developing and maintaining an effective partnership with FRA.

The Handbook brings guidance documents together in one place to strengthen the consistency of program operations from State to State and among FRA regions. All future changes to the Handbook involving Federal regulations or policies and procedures adopted by FRA will be made by FRA's State liaison, in consultation with the Executive Committee of the Association of State Rail Safety Program Managers (Association). Association members may recommend changes or amendments to the Handbook by concurrently submitting written requests to their representative on the Association's Executive Committee and to the FRA State liaison. Changes or amendments to the Handbook will be by consensus agreement of the Association Executive Committee and FRA. The effective date of the Handbook is the date of last revision, cited by footnote on each page.

The Handbook is in a portable document format with a search capability to assist users in quickly locating topics of interest. Handbook citations and hyperlinks to Web sites or related documents provide access to data, information, or regulatory policies and practices that govern State program practices or access to non-regulatory partner organizations. Information provided in the Handbook does not replace or otherwise supplant more detailed instructions and policy guidance contained in other FRA publications, technical bulletins, or directives.

The Association of State Rail Safety Program Managers was instrumental in conceiving and preparing the State Managers Handbook. The content of the Handbook reflects State program concerns and needs as identified by the Association's Executive Committee and member States. The States' contributions were guided by the goal of improving State manager skills, knowledge, and efficiency, thereby promoting safe railroad transportation.

# Chapter 1

# Benefits of State Participation

# Benefits of State Participation

States join the State Rail Safety Participation Program for a variety of reasons. Some States have inspection programs to promote the safety of large passenger rail operations. Other States develop rail safety programs because their States have high volumes of rail hazardous materials traffic. Several States made the decision to regulate rail safety following catastrophic railroad accidents, and others want to ensure their railroad inspections are uniform with neighboring States that are already in the program. This document addresses rail safety issues that States should consider when weighing the merits of the State Rail Safety Participation Program.

**Increased Number of Safety Inspections**

State inspectors provide supplemental safety inspections that nonparticipating States do not receive. The Federal Railroad Administration (FRA) does not reduce its inspection efforts in a State that elects to employ State rail safety inspectors. Therefore, States that have rail safety inspectors receive a net gain in rail safety inspections. A larger rail safety inspection force results in correction of more safety defects, better response to public complaints and railroad accidents, and State expertise to directly address rail safety issues with railroad operating and maintenance personnel. Increasing the number of rail safety inspectors is an important consideration because the present workload exceeds the Federal inspector workforce. Public safety concerns about unsafe rail operations can best be met by enhanced rail inspection using both State and Federal resources.

**Anticipate and Address Future Rail Safety Issues**

Track condition is the primary factor in large number of rail accidents. The level of railroad spending for capital improvements and routine maintenance fluctuates with the economy. In recent years, rail tonnage and the stress of rail car axle loadings has accelerated the rate of track deterioration and decreased overall life expectancy for the roadbed and the individual parts of the track structure. There is a clear need for State and Federal regulatory agencies to provide an effective track inspection capability to ensure that unsafe track does not compromise safety.

It is also extremely important that track inspectors monitor railroad compliance with safety standards that place greater emphasis on automated inspections. Inspectors often use data collected from automated track inspection vehicle surveys to help them plan on-the-ground walking inspections. While automation has improved the ability to pinpoint track problems, walking track inspections remain essential to verifying specific track safety defects. This inspection activity is labor-intensive. Technological advances may allow inspectors to work more efficiently, but it still takes a track inspector an average of 63 minutes to conduct a walking inspection of a mile of track, including turnouts. The estimate is based on FRA's 1994 Quality Inspection Program (QIP) time study. Automation will not reduce the need for track inspectors.

Hazardous material inspectors are responsible for ensuring compliance with hazardous materials regulations. Hazardous material safety is one of the highest priority rail inspection areas due to the destructive potential of a commodity release to harm human life, the environment, and property. The vast majority of unintentional releases of hazardous material are not the result of accidents. These releases occur primarily due to defective valves, fittings, or closures, or during loading and unloading operations. To address these incidents, hazardous material inspectors must routinely inspect equipment integrity and monitor the training and performance of industry personnel who prepare shipments or offload hazardous products.

In addition to regular rail yard inspections, hazardous materials personnel conduct facility audits at locations where tank cars are manufactured, repaired, inspected, and tested to ensure such cars are

fit for service. Hazardous material inspectors also routinely provide training for local emergency responders. Knowledge gained from this training by fire and police agencies enables responders to identify commodity type and location and dictate appropriate remedial action.

The security of hazardous material shipments is also an important issue. Hazardous material inspectors may work with railroad companies to insure that hazardous material shipments are stored in secure areas to reduce the opportunity for vandalism or theft.

Operating practices inspectors are concerned with rail employee welfare and safe train operations. The railroad is a dangerous work environment and human factors associated with railroad operations are a leading cause of train accidents. To address accidents related to human factors, FRA has adopted new safety regulations, placing additional responsibilities on a relatively small group of FRA and State operating practices inspectors. One reason for human-factor-caused train accidents is noncompliance with railroad operating rules. Therefore, recent areas of concentration for operating practices inspectors are regulation and rules compliance inspections conducted onboard trains. Train riding allows inspectors to evaluate railroad employees' knowledge and execution of safe working procedures. Yard accidents during switching operations are one of the principal causes of rail employee accidents, accounting for a large share of all employee fatalities. Experience has revealed that increased operating rules inspections and active monitoring of switching operations will prevent train accidents and rail employee casualties.

Operating practices inspectors inspect and monitor railroad facilities to insure that railroads provide safe and sanitary facilities for railroad employees. Inspections are conducted to verify that railroad facilities meet the minimum requirements of State rules and federal regulations. The following items are examples:

- Drinking Water
- Toilets
- Washing Facilities
- Showers
- Bunk Rooms, Camp Cars and Dormitories
- Lunch Rooms
- Locker Rooms
- Shelters
- Cabooses

Operating practices inspectors also work closely with railroad companies to insure that rolling stock is properly secured when not in use and to prevent vandalism or theft. They also check on compliance of railroads in properly blowing the train horn at public crossings and at other designated times and places.

Train control and highway-rail grade crossing signals are other areas of rail safety that need close regulatory attention. Traditional signal and train control systems are being replaced with state-of-the-art train control systems based on microprocessor technology. A New federal law requires that all railroads install interoperable Positive Train Control (PTC) systems by December 31, 2018. Signal & Train Control inspectors are essential to ensuring optimum safety performance from microprocessor technologies that will control wayside signals and automatic warning devices at highway-rail grade crossings. The proper functioning of grade crossing signal systems is critical to improving safety for highway users, railroad employees, and rail passenger operations.

The motive power and equipment discipline faces the challenge of applying existing regulations to new types of locomotives and freight cars. Inspections of rolling stock are essential as new technologies, such as electronic braking systems, are applied to locomotives and cars. In addition to future challenges, the motive power and equipment discipline must remain diligent in such areas as equip-

ment crashworthiness, pneumatic braking systems, fire safety, glazing, draft systems, and wheel metallurgy. Existing inspection skills are also critical to addressing the safe movement of damaged or otherwise noncompliant equipment and all other aspects of inspection, testing, maintenance, operation, and design of locomotives and cars used for freight and passenger railroad service.

**High-Profile State Rail Safety Concerns**

A high volume of rail shipments of dangerous commodities argues for greater regulatory scrutiny of rail transportation. States with nuclear power facilities will be future origin points for spent nuclear fuel shipments. The U.S. Department of Energy estimates that railroads will transport approximately 90 percent of all spent fuel moving from nuclear power plants to a permanent storage repository. FRA has developed a comprehensive inspection program to ensure the safe transportation of this radioactive waste. The Safety Compliance Oversight Plan (SCOP) for Rail Transportation of High-Level Radioactive Waste and Spent Nuclear Fuel is labor intensive and State participation is an important element.

States with an active rail safety program provide the nation with a critical supplemental inspection capability to ensure that railroads strictly adhere to safety regulations governing the safe transportation of dangerous commodities. Hazardous materials inspectors ensure that tank cars are properly loaded and unloaded, and that valves, fittings, and closures meet exacting specifications. These inspectors also monitor document preparation for compliance with Federal requirements. These documents must precisely identify dangerous commodities and their positions within a train consist. This work prevents many unintentional releases of hazardous materials and ensures the document accuracy vital to emergency responders in the event the package containing the material is damaged or otherwise compromised.

State rail safety programs allow State governments to be proactive in addressing the rail safety concerns of its citizens. Rail safety expertise enables States to understand and address issues relating to railroad operations, motive power and equipment, signal and train control, hazardous materials, and track maintenance. States that only have programs to provide Federal funds to railroads to improve warning devices at highway-rail crossings may have legal authority to investigate accidents, but may benefit from training that is provided by the State Rail Safety Participation Program.

**Non-regulatory Complaints**

State and Federal program partners educate citizens about railroad operations. Examples of these types of complaints:

Fumes from idling locomotives
Stopped trains blocking highway-rail grade crossings
Unattended rail equipment
Prolonged activation of automatic crossing signals due to switching operations
Rough or uneven grade crossing surfaces
Debris and overgrown vegetation along railroad rights-of-way
Frequency of trains and commodities hauled

Rail safety inspectors also provide assistance by investigating drainage complaints. These complaints affect both existing roadway and track infrastructure. Examples of drainage complaints are noted below:

Culverts under railroad track blocked with debris
Crushed metal pipe culverts under track that causes drainage backup on adjacent property
Under-sized culverts
Railroad drainage ditches filled with brush and/or debris

Auxiliary inspector activities provide important safety and health benefits beyond safe rail transportation.

**Security**
Rail safety inspectors are routinely working at railroad facilities and on or around railroad track and structures. State inspectors can provide an extra measure of security by informing railroad personnel or local law enforcement of persons not authorized to be on railroad property. Rail safety inspectors also ensure that hazardous materials shippers and consignees have a viable security plan. At a minimum, these security plans must address personnel employment security, protecting the facility from unauthorized access, and measures that promote enroute shipment or storage security.

**State Transportation Planning**
Rail safety inspectors are a valuable asset to transportation planners. Intermodal projects often involve railroad track and structures, specialized rail equipment and facilities, operations logistics, and interlocking switches and signals. The specialized technical expertise of rail safety inspectors can facilitate intermodal project development, evaluation of rail properties, project monitoring and asset management.

Projecting rail system capability to meet future demand requires an assessment of the existing physical plant and its adequacy from the perspective of clearance requirements, equipment innovation, rail weight and age, yard capacity, and the capacity and access to border crossings and ports. Rail safety inspectors are well-qualified to assist in collecting and evaluating this basic rail data, which is an essential complement to projections of future traffic volumes and patterns and to investment decisions critical to supporting future transportation needs.

Local transportation planners can also benefit from the knowledge of a State rail safety programs. In most instances, local planners do not have data that is crucial to proper evaluation of railroad freight infrastructure proposals. An understanding of rail operations, coupled with a working relationship among rail safety inspectors and State, regional, or local officials, can ensure early and meaningful railroad involvement in regional metropolitan planning organization transportation planning. Technical knowledge of rail operations for the development of high speed passenger rail systems, the creation of quiet zones, the elimination of public highway-rail grade crossings, and the construction of bridges to replace existing grade crossings, or bridges to carry new roadways over/under existing tracks are also areas where a State rail safety program can offer assistance to local transportation planners.

Public/private coordination of rail-involved projects is critical to protecting public investment and promoting public safety. For example, rail safety expertise at the State level can benefit planning for hike-and-bike trails adjacent to railroad tracks, projects that often lack adequate early railroad involvement. Failure to fully involve railroads in trail planning can result in significant legal barriers to project completion, safety concerns for recreational users and major liability issues for railroads.

There is also the benefit of the publicizing of rail crossing safety and pedestrian safety messages through rail safety government agencies and their inspectors, sometimes in coordination with groups such as Operation Lifesaver, Inc.

Knowledge of rail operations and working partnerships between rail safety inspectors, State government personnel, and local railroad officials ensures early and meaningful railroad involvement in the development of light rail transit operations or proposed joint operations by government-funded commuter rail and freight railroads. Rail safety inspection resources also benefit the development and monitoring of system safety plans for rail public transportation operations.

High speed rail options are now being considered across the country. States have a responsibility to ensure that these transportation options are planned in a manner that ensures the safety of its citizens. The skills of trained rail safety professionals are essential to ensure State interests are considered through construction and operation of future high-speed passenger operations

The FRA's "Train Horn Rule" (49 CFR Parts 222 and 239 - *Use of Locomotive Horns at Highway-Rail Grade Crossings*) requires that a diagnostic review be conducted of all crossings within a proposed quiet zone. State rail safety personnel participate in the diagnostic reviews and offer invaluable assistance to communities seeking to create a quiet zone, as well as to FRA personnel who do not always have first-hand knowledge of the areas being considered for quiet zone status.

Another benefit of employing rail safety inspectors is that rail hazardous materials inspectors can work through Metropolitan Planning Organizations to provide rail hazardous materials training for local emergency responders. Training and information on rail hazardous materials transportation improves the ability of local emergency responders to perform more precise risk analyses and refine projections of training and equipment needs. On a related front, the eventual designation of a permanent repository for spent nuclear fuel will result in rail movements of high-level radioactive waste from nuclear facilities. State rail safety inspectors can offer meaningful input into State policy positions on Department of Energy spent-fuel routing decisions.

States face a wide variety of railroad-related issues. Rail safety inspectors will be valuable State transportation planning assets for the following potential State concerns or projects:

Relocation of rail facilities out of core city areas
Rail passenger operations
Weight limits
Railcar equipment availability
Clearance issues
Railroad bridge issues
Security
Railroad coordination
Costs of rail alternatives
Evaluating the adequacy of railroad infrastructure
Freight planning studies
Developing freight policies
Anticipating infrastructure needs
Understanding freight operator needs and processes
State-funded railroad construction projects meet contractual specifications
Highway-rail signal and surface projects meet contractual specifications

The partnership between the States and FRA is mutually beneficial and serves the public interest. State rail safety inspectors do much more than enforce Federal safety standards. They serve as a State's primary link to daily railroad operations. State inspectors and other State rail personnel are the "eyes and ears" of State government, advising decision-makers of evolving transportation issues, ensuring that State transportation dollars are wisely invested, and monitoring the condition of critical railroad infrastructure so that passengers and freight move safely and efficiently.

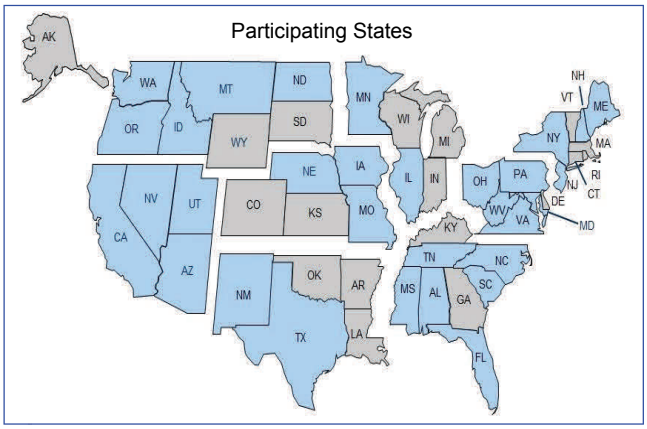
States have an important role in promoting a safe and viable railroad transportation system. State participation in railroad safety regulation is a wise public policy option, not a requirement. State support for railroad safety is as important as State support for highway safety programs or pipeline safety programs. States that employ rail safety professionals provide the Nation with a critical supplemental inspection capability to ensure that railroads strictly adhere to safety regulations for the benefit of its citizens and the protection of personal property and the environment.

# Chapter 2

# History and Overview
# State Rail Safety Participation Program

# History & Overview
# State Rail Safety Participation Program

## Background




The 1970 Railroad Safety Act authorized the States to work in partnership with FRA to enforce Federal railroad safety regulations [Public Law 103-272, July 5, 1994, Codification of Certain U.S. Transportation Laws as Title 49, United States Code, includes the 1970 Railroad Safety Act at Section 20105]. The Federal Railroad Safety Act clearly states the Congressional intent to establish national uniformity of railroad safety laws, rules, regulations, orders, and standards. The section goes on to permit a State to adopt new — or continue in force — any existing State rail safety laws until preempted by a Federal law covering the same subject matter.

The Act allows State inspectors to be certified by FRA to conduct investigative and surveillance activities to assure that the application and interpretation of Federal rail safety rules, regulations, Orders, and standards reflect the same national uniformity. (The legislative history of the Act reflects a Congressional analysis of the nature of railroad operations, and of its local versus national aspects.) Analysis results led to the following conclusions: rail transportation was not subject to a clear demarcation between interstate and local aspects; railroads formed a national system; and rail operations were truly interstate in character, requiring a uniform body of regulation and enforcement.

## History of State Participation

States were brought into the national program by FRA adoption of regulations. State Safety Participation Regulations are located in Title 49 Code of Federal Regulations (CFR) Part 212. By 1975, promulgation of regulations had enabled States to enforce track and freight car safety standards. In 1980, legislation broadened State involvement to include the Safety Appliance, Locomotive Inspection, Signal Inspection, and Hours of Service acts. State Safety Participation Regulations were revised again in 1992 to permit States to perform rail hazmat inspections, in essence allowing them to participate in all five safety disciplines. In 1995, the Grade Crossing Signal System Safety Regulations (49 CFR Part 234) authorized both Federal and State signal inspectors to assure that railroads were properly testing, inspecting, and maintaining automated warning devices at grade crossings. These devices include flashing lights, gates, bells, and related circuitry.

State programs generally emphasize planned, routine compliance inspections. However, States may undertake additional investigative and surveillance activities consistent with overall program needs, individual State capabilities and specific State commitments. Before participation can begin, each State agency must enter into a multi-year agreement with FRA for the exercise of specified authority. This agreement may delegate investigative and surveillance authority regarding all or any part of Federal railroad safety laws, in the five safety disciplines. States do not have authority to authorize railroad waiver applications, or monitor railroad noise levels, or inspect boilers on steam locomotives.

FRA provided partial grant funding (up to a maximum of 50 percent) for State programs from the program's inception until 1988. The grants program provided a transition from State regulation to national regulation and encouraged a continuing State role in rail safety regulation. Once State programs were established, Congress eliminated grants. No Federal funds have been appropriated for the grant program since 1988. Loss of grant funds has not harmed State program growth. While the loss of grant support resulted in a few States electing to leave the program, the number of State inspectors has substantially increased since the grant program ended. FRA continues to provide financial support for travel to technical training.

**Delegation of Federal Authority**

States that enter into an agreement with FRA are delegated certain specified authority (defined in 49 CFR Part 212) with respect to investigative and surveillance activities. The delegation is effective only to the extent it is carried out by and through personnel recognized by the State and FRA to be qualified to perform the particular investigative functions to which they are assigned.

**Preemption**

The Federal Railroad Safety Act of 1970, Pub. L. No. 91-458 (now codified, along with other railroad safety statutes, at 49 U.S.C. Chapters 201-213), gave FRA (as the delegate of the powers granted to the Secretary of Transportation under that law) authority over "every area of railroad safety" (49 U.S.C. 20103). The statute also declared that laws related to railroad safety shall be "nationally uniform to the extent practicable" and that a State requirement related to railroad safety shall generally be preempted when the Secretary has issued a rule or order "covering the subject matter of the State requirement" (49 U.S.C. 20106). As part of the grand compromise leading to enactment of the 1970 act, the statute also permitted States, in return for their loss of direct authority, to regulate almost any subject FRA has regulated, to participate in investigative activities under the Federal safety laws through either an annual certification or agreement, and to recommend enforcement action under those laws (49 U.S.C. 20105). In addition, the statute permitted participating States that recommend that FRA seek injunctive relief or impose civil penalties for violations of the safety laws to seek those remedies themselves if FRA has not taken action within specified periods (49 U.S.C. § 20113). Preemption is discussed in greater detail in Chapter 5, *Safety Jurisdiction.*

**Preemption and Accident Reporting**

States are not preempted from requiring railroads to provide immediate notification of accidents in order to enable the States promptly to launch their own investigations. In addition, States may require railroads to furnish copies of monthly reports railroads filed with FRA (NARUC v. Coleman, 542 F. 2d 11, (1976)). Some States have chosen to forego requiring railroads to file copies of monthly accident reports that are filed with FRA because of the availability of accident/incident data on FRA's public Web site. The majority of States participating in the State Rail Safety Participation Program do have immediate telephonic accident reporting requirements for railroads.

**State Responsibilities**

- A State agency wishing to participate with FRA in investigative and surveillance activity concerning rail safety must have (State) jurisdiction over the safety practices of the facilities, equipment, rolling stock, and operations of railroads.

- A State agency must have legal authority to conduct investigative and surveillance activities in connection with the rules, regulations, orders, and standards issued by the FRA pursuant to 49 CFR Part 212.

- A State agency participating in hazardous materials inspections is limited to inspections on railroad property unless the State agency has jurisdiction over shippers and manufacturers associated with rail transportation of hazardous materials.

- The State agency shall employ personnel recognized by FRA as qualified to perform the investigative and surveillance activities to which the personnel are assigned. State inspectors must be bona fide employees of the State agency.

- State inspectors must work at least 50 inspection days per year to remain eligible for FRA reimbursement of classroom training costs. A State manager or supervisor who also inspects must work at least 30 inspection days per year to remain eligible for FRA reimbursement of classroom training costs. An inspection day is any day when an inspector prepares or participates in the preparation of an inspection report.

**Federal Responsibilities**

- Consistent with available resources, FRA will bear the cost of providing travel to classroom training to State inspectors at FRA-sponsored training courses. FRA will also provide on-the-job training/familiarization to State inspector candidates meeting the basic requirements for inspector rank. States are responsible for travel costs associated with on-the-job training toward certification.

- FRA will work with States to design a training program for journeyman level and apprentice inspectors leading to certification.

- State inspectors authorized to participate in investigative and surveillance activities shall be recognized as certified upon satisfactory completion of prescribed training. Notification of inspector certification is by letter to the State agency program manager from the regional administrator of the FRA region in which the State is located.

- Consistent with available resources, FRA will provide portable computers to State inspectors for program reporting and communication purposes. Many states elect to provide their own computers. In that instance, FRA will provide essential program software.

## Inspection Objectives

It is important to understand that Federal and State rail safety inspectors do not perform safety inspections for railroads. Railroads employ their own inspectors, supervisors, and maintenance personnel. The inspector's role is to monitor the railroad and industry compliance with rail safety regulations. Given the vastness of the railroad industry compared to the size of the Federal and State inspection force, it is physically impossible for the inspection force to be omnipresent. The inspector's job is to sample rail carrier compliance and take action to improve compliance where shortcomings are revealed.

When an inspection or complaint investigation reveals noncompliance with the safety laws, each noncomplying condition or action is listed on an inspection report. Circumstances may dictate that action be taken beyond recording a safety defect and requiring corrective action. Chapter 13 describes the rail safety enforcement tools available to FRA and State inspectors. One of the most important duties of the rail safety inspector is the accident and complaint investigation. Timely arrival at an accident scene increases the likelihood of determining accident cause and taking appropriate remedial action. Timely resolution of a complaint can prevent unsafe practices or situations that might lead to an accident or employee injury. To participate with FRA in accident investigations, a State must enter into an agreement with the regional administrator. The agreement outlines accident investigation roles and responsibilities.

## Inspection Disciplines

Railroad safety inspectors work in five primary technical disciplines to enforce railroad safety standards: track, motive power & equipment, operating practices, signals & train control, and hazardous materials. Hazardous materials inspectors are concerned with shippers as well as rail carriers. Generally, substantive safety rules addressing these areas set design or performance standards, require adherence to certain procedures, dictate maintenance and inspection intervals, and/or require specific records to be kept or reports to be made. General qualifications and specific duties of rail safety inspectors in the various safety disciplines are listed below. Federal qualification requirements for State rail safety personnel are contained in 49 CFR Part 212, State Safety Participation Regulations.

## General Inspector Qualifications

State inspector candidates must be bona fide employees of the State agency and demonstrate the following basic knowledge, skills and abilities:

- The ability to read and comprehend written materials such as training and enforcement manuals, regulations, operating and safety rules of the railroad, and similar materials;
- The ability to compose narrative reports of investigative findings that are clear, complete, and grammatically acceptable;
- The ability to record data on standard report forms with a high degree of accuracy;
- The ability to communicate orally;
- A basic knowledge of rail transportation functions, the organization of railroad, shipper, and manufacturer companies, and standard industry rules for personal safety; and,
- The ability to understand and appropriately apply procedures, requirements, regulations, and policies related to an area of specialized expertise.

## ADDITIONAL CONSIDERATIONS FOR INSPECTOR CANDIDATES

- Extensive overnight and out-of-state travel
- Ability to work extended hours under adverse conditions
- Works independently
- Ability to meet the physical demands of the job.

Appendix 4 contains FRA job descriptions for technical disciplines and a sample job description for State grade crossing signal system inspectors. Minimum inspector qualification requirements are included in Chapter 7 and can be found in 49 CFR Part 212.

# Chapter 3

# Federal Railroad Administration

# Federal Railroad Administration

## Organization Description

The Federal Railroad Administration was created by the Department of Transportation Act of 1966 (49 U.S.C. 103, Section 3(e)(1)). The purpose of FRA is to: promulgate and enforce rail safety regulations, administer railroad assistance programs, conduct research and development in support of improved railroad safety and national rail transportation policy, provide for the rehabilitation of Northeast Corridor rail passenger service, and consolidate government support of rail transportation activities. Today, FRA is one of ten agencies within the U.S. Department of Transportation concerned with intermodal transportation. It operates through seven divisions under the offices of the Administrator and Deputy Administrator.

FRA's organizational structure enables it to effectively accomplish its mission: to promote safe, environmentally sound, successful railroad transportation to meet current and future needs of all customers. The agency is headed by two political appointees, the FRA Administrator and Deputy Administrator, who oversee the programs and activities of five offices: Chief Counsel, Policy and Program Development, Safety, Administration and Finance, and Railroad Development. Two offices, Safety and Chief Counsel, work together to plan, develop, and implement the agency's safety program for the railroad industry.

**Federal Railroad Administration**


**Chief Counsel** - The Safety Law Division of the Office of Chief Counsel develops and drafts the agency's safety regulations, assesses civil penalties for violations of the rail safety statutes and FRA safety regulations, and provides other legal support for FRA's safety program. The General Law Division provides legal services to FRA's offices on all legal issues other than safety law, including Freedom of Information Act, Federal Tort Claims Act, and Surface Transportation Board matters.

**Policy** - The Office of Policy provides support, analysis and recommendations on broad subjects relating to the railroad industry such as: mergers and restructuring, economic regulation, rail Economics, financial health, traffic patterns and network analysis, labor-management issues, freight data and operations, intermodalism, environmental issues, and international programs.

**Administration and Finance** - The Office of Administration directs and coordinates the administrative programs and services of the FRA, both in headquarters and in the eight regional offices. It includes the offices of Human Resources, Information Technology and Support Systems, Acquisition and Grants Services, Financial Services, and Budget. It is also responsible for coordinating the implementation of government wide and Department of Transportation management reforms.

**Railroad Development** - The Office of Railroad Development (RDV) is responsible for Federal investment and assistance to the rail industry as well as the development and implementation of Administration policy concerning intercity rail passenger service and high-speed rail. It sponsors research and development activities to advance science and engineering and improve the technology for railroad safety and work. It provides investment opportunities for small freight railroad projects, primarily through the Railroad Rehabilitation and Improvement Financing Program.

**Public Affairs** - The Office of Public Affairs works closely with all departments within the agency to develop timely information for release through a variety of print and electronic news outlets as well as for distribution to the general public. It also works closely with other Department of Transportation offices in support of the Administration's public policy objectives.

**Civil Rights** - The Office of Civil Rights provides leadership, policy guidance, support, and coordination to FRA's various offices and external customers to ensure effective and consistent diversity and civil rights programs. The OCR program responsibilities also include processing internal and external complaints, minority interns, special observances, and other operational functions.

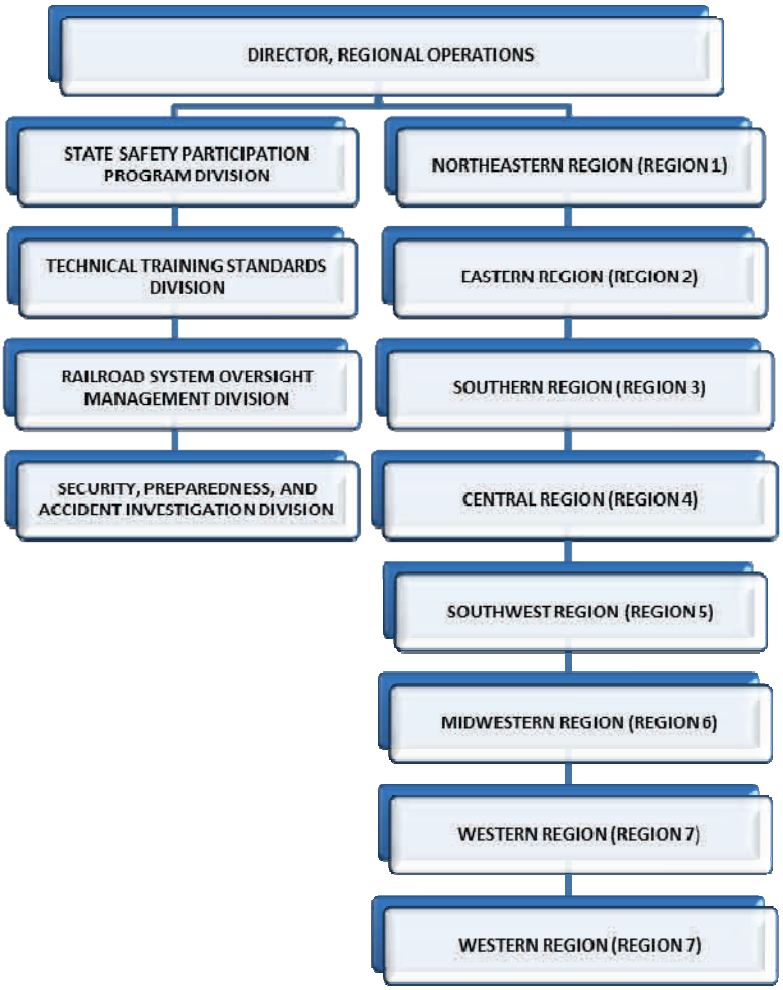
**Safety** - Managing a substantial regulatory agenda and inspection program is the responsibility of the Associate Administrator for Railroad Safety, a Deputy Associate Administrator, a Director of Technical Oversight and a Director of Field Operations. Major program functions of the Office of Safety are Compliance, Regional Administration, Railroad System Oversight and Standards and Program Development, and State Participation.

**Regional Management -** The regional administrator (RA) serves as the principal advisor to the Associate Administrator for Safety and represents FRA on all regional rail transportation issues. In this role, the RA is considered the ultimate authority for resolution of railroad safety issues within the region. As the primary regional manager, the RA directs the technical and administrative functions of the regional work force.

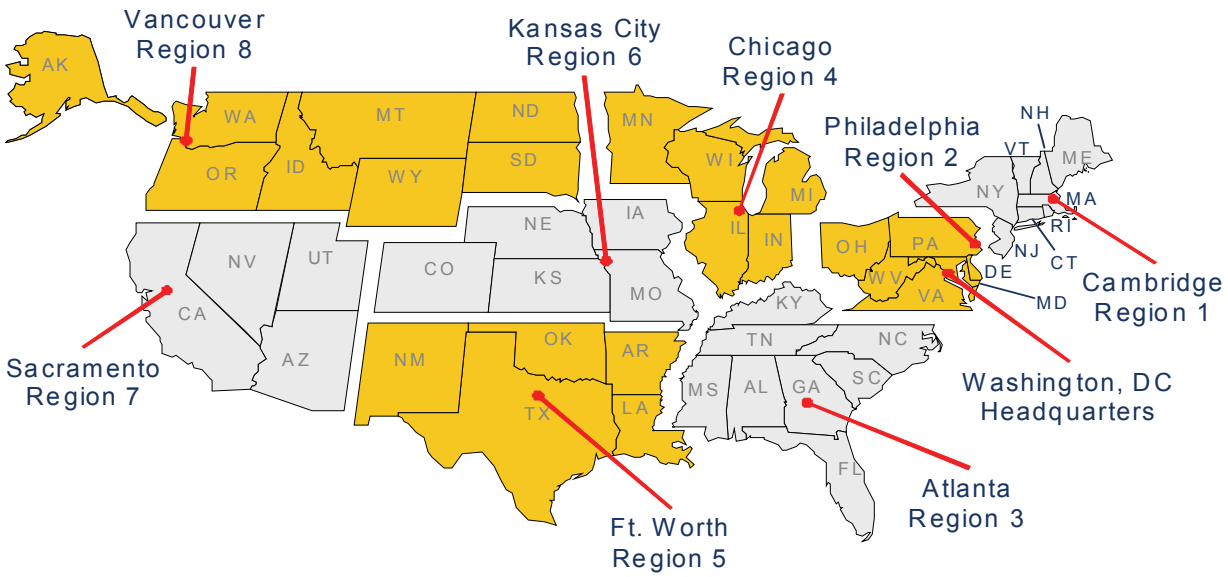
Regions have two deputy RAs who provide program planning and oversight support. They also supervise the activities of specialists and administrative staff. Usually, supervision of technical disciplines is divided among the deputies.

Railroad safety specialists serve as the region’s experts in the technical disciplines: hazardous materials, motive power and equipment, operating practices, signal and train control systems, and track. In this role, they review work and provide technical guidance to FRA and State inspectors. Safety specialists also evaluate candidates for State inspector or State inspector trainee positions. Specialists also review the work of inspectors.

# Federal Railroad Administration
# Office of Railroad Safety
# Regional Operations




## Federal Railroad Administration
### Eight Regions



| Regional Office Contact Information | | |
|---|---|---|
| **Region** | **Address** | **Phone** |
| 1 | 55 Broadway, Room 1077<br>Cambridge, MA 02142 | 617-494-2302 |
| 2 | Baldwin Tower, Suite 660<br>1510 Chester Pike<br>Crum Lynne, PA 19022 | 610-521-8200 |
| 3 | Atlanta Federal Center<br>61 Forsyth Street, SW, Suite 16T20<br>Atlanta, GA 30303 | 404-562-3800 |
| 4 | 200 West Adams Street<br>Chicago, IL 60606 | 312-886-9634 |
| 5 | 4100 International Plaza, Suite 450<br>Fort Worth, TX 76109 | 817-862-2200 |
| 6 | 901 Locust Street, Suite 464<br>Kansas City, MO 64106 | 816-329-3840 |
| 7 | 801 I Street, Suite 466<br>Sacramento, CA 95814 | 916-498-6540 |
| 8 | 500 Broadway, Suite 420<br>Vancouver, WA 98660 | 360-696-7536 |

# Chapter 4

# Agreements & Plans

# Agreements & Plans

## Participation Agreement

States in the Rail Safety Participation Program enter into multi-year agreements with FRA. State agencies must have State statutory jurisdiction to regulate railroad safety. States that plan to participate in hazardous materials inspections should also have State authority to enter the property of shippers and receivers of rail hazardous materials shipments. Participating States are delegated certain specified authority (49 CFR Part 212) with respect to railroad investigative and surveillance activities. The delegation is effective only to the extent it is carried out by personnel recognized by the State and the FRA to be qualified to perform the particular investigative functions to which they are assigned. A change in the designated State Agency will require a new agreement to be executed (Appendix 1).

## Revised Schedule of Participation

After executing the participation agreement, the State Agency submits to FRA a Revised Schedule of Participation, Exhibit 2A to the Participation Agreement, when there are changes affecting the level or areas of participation in the Federal program. If the level or areas of participation change yearly, annual updates will be required. The Revised Schedule of Participation should also be used to advise FRA of personnel changes of State Agency administrative officials or program managers (Appendix 2).

## Technical Funding Training Agreement

The training agreement is executed with the Participation Agreement and then annually at the beginning of the new Federal fiscal year (October 1). The agreement states that FRA agrees to provide full funding for authorized costs incurred by the State Agency with respect to designated State employee attendance at Administration approved training activities. The agreement requires an attorney certification that the State Agency has legal authority to participate in training activities in accordance with the agreement (Appendix 1).

# Chapter 5

# Safety Jurisdiction

# Safety Jurisdiction

## The Extent and Exercise of FRA's Safety Jurisdiction

**(August 2006 excerpt from Appendix A to 49 CFR Part 209 — Statement of Agency Policy Concerning Enforcement of the Federal Railroad Safety Laws.)**

The Federal Railroad Safety Act of 1970, Pub. L. 91-458 (now codified, along with other railroad safety statutes, as 49 U.S.C. Chapters 201-213) Section 20102 of title 49 on the United States Code of the Safety Act defines railroad as follows:

The term "railroad" as used in this title means any forms of non-highway ground transportation that run on rails or electromagnetic guideways, including (1) commuter or other short-haul rail passenger service in a metropolitan or suburban area, as well as any commuter rail service which was operated by the Consolidated Rail Corporation as of January 1, 1979, and (2) high speed ground transportation systems that connect metropolitan areas, without regard to whether they use new technologies not associated with traditional railroads. Such term does not include rapid transit operations within an urban area that are not connected to the general railroad system of transportation.

Prior to 1988, the older safety statutes had applied only to common carriers engaged in interstate or foreign commerce by rail. The Safety Act, by contrast, was intended to reach as far as the Commerce Clause of the Constitution (i.e., to all railroads that affect interstate commerce) rather than be limited to common carriers actually engaged in interstate commerce. In reporting out the bill that became the 1970 Safety Act, the House Committee on Interstate and Foreign Commerce stated:

> The Secretary's authority to regulate extends to all areas of railroad safety. This legislation is intended to encompass all those means of rail transportation as are commonly included within the term. Thus, "railroad" is not limited to the confines of "common carrier by railroad" as that language is defined in the Interstate Commerce Act.
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> H.R. Rep. No. 91-1194, 91st Cong., 2d Sess. at 16 (1970).

FRA's jurisdiction was bifurcated until, in 1988, the RSIA amended the older safety statutes to make them coextensive with the Safety Act by making them applicable to railroads and incorporating the Safety Act's definition of the term (e.g., 45 U.S.C. 16, as amended). The RSIA also made clear that FRA's safety jurisdiction is not confined to entities using traditional railroad technology. The new definition of "railroad" emphasized that all non-highway high speed ground transportation Systems — regardless of technology used — would be considered railroads.

Thus, with the exception of self-contained urban rapid transit systems, FRA's statutory jurisdiction extends to all entities that can be construed as railroads by virtue of their providing non-highway ground transportation over rails or electromagnetic guideways, and will extend to future railroads using other technologies not yet in use. For policy reasons, however, FRA does not exercise jurisdiction under all of its regulations to the full extent permitted by statute. Based on its knowledge of where the safety problems were occurring at the time of its regulatory action and its assessment of the practical limitations on its role, FRA has, in each regulatory context, decided that the best option was to regulate something less than the total universe of railroads.

For example, all of FRA's regulations exclude from their reach railroads whose entire operations are

confined to an industrial installation (i.e., "plant railroads"), such as those in steel mills that do not go beyond the plant's boundaries (e.g., 49 CFR 225.3(a)(1) Accident Reporting Regulations). Some rules exclude passenger operations that are not part of the general railroad system (such as some tourist railroads) only if they meet the definition of "insular" (e.g., 49 CFR 225.3(a)(3) Accident Reporting). Other regulations exclude not only plant railroads but all other railroads that are not operated as a part of, or over the lines of, the general railroad system of transportation (e.g., 49 CFR 214.3 Railroad Workplace Safety).

## Expanded Definition of the General Railroad System of Transportation

By "general railroad system of transportation," FRA refers to the network of standard gage track over which goods may be transported throughout the nation and passengers may travel between cities and within metropolitan and suburban areas. Much of this network is interconnected, so that a rail vehicle can travel across the nation without leaving the system. However, mere physical connection to the system does not bring trackage within it. For example, trackage within an industrial installation that is connected to the network only by a switch for the receipt of shipments over the system is not a part of the system.

Moreover, portions of the network may lack a physical connection but still be part of the system by virtue of the nature of operations that take place there. For example, the Alaska Railroad is not physically connected to the rest of the general system but is part of it. The Alaska Railroad exchanges freight cars with other railroads by car float and exchanges passengers with interstate carriers as part of the general flow of interstate commerce. Similarly, an intercity high-speed rail system with its own right of way would be part of the general system although not physically connected to it. The presence on a rail line of any of these types of railroad operations is a sure indication that such trackage is part of the general system: the movement of freight cars in trains outside the confines of an industrial installation, the movement of intercity passenger trains, or the movement of commuter trains within a metropolitan or suburban area. Urban rapid transit operations are ordinarily not part of the general system, but may have sufficient connections to that system to warrant exercise of FRA's jurisdiction (see discussion of passenger operations, below). Tourist railroad operations are not inherently part of the general system and, unless operated over the lines of that system, are subject to few of FRA's regulations.

The boundaries of the general system are not static. For example, a portion of the system may be purchased for the exclusive use of a single private entity and all connections, save perhaps a switch for receiving shipments, severed. Depending on the nature of the operations, this could remove that portion from the general system. The system may also grow, as with the establishment of intercity service on a brand new line. However, the same trackage cannot be both inside and outside of the general system depending upon the time of day. If trackage is part of the general system, restricting a certain type of traffic over that trackage to a particular portion of the day does not change the nature of the line, it remains the general system.

Of course, even where a railroad operates outside the general system, other railroads that are definitely part of that system may have occasion to enter the first railroad's property (e.g., a major railroad goes into a chemical or auto plant to pick up or set out cars). In such cases, the railroad that is part of the general system remains part of that system while inside the installation; thus, all of its activities are covered by FRA's regulations during that period. The plant railroad itself, however, does not get swept into the general system by virtue of the other railroad's activity, except to the extent it is liable, as the track owner, for the condition of its track over which the other railroad

operates during its incursion into the plant. Of course, in the opposite situation, where the plant railroad itself operates beyond the plant boundaries on the general system, it becomes a railroad with respect to those particular operations, during which its equipment, crew, and practices would be subject to FRA's regulations.

In some cases, the plant railroad leases track immediately adjacent to its plant from the general system railroad. Assuming such a lease provides for, and actual practice entails, the exclusive use of that trackage by the plant railroad and the general system railroad for purposes of moving only cars shipped to or from the plant, the lease would remove the plant railroad's operations on that trackage from the general system for purposes of FRA's regulations, as it would make that trackage part and parcel of the industrial installation. (As explained above, however, the track itself would have to meet FRA's standards if a general system railroad operated over it. See 49 CFR 213.5 for the rules on how an owner of track may assign responsibility for it.) A lease or practice that permitted other types of movements by general system railroads on that trackage would, of course, bring it back into the general system, as would operations by the plant railroad indicating it was moving cars on such trackage for other than its own purposes (e.g., moving cars to neighboring industries for hire).

## Tourist, Scenic, and Excursion Railroads

FRA exercises jurisdiction over tourist, scenic, and excursion railroad operations whether or not they are conducted on the general railroad system. There are two exceptions: (1) operations of less than 24-inch gage (which, historically, have never been considered railroads under the Federal railroad safety laws); and (2) operations that are off the general system and "insular" (defined below). Insularity is an issue only with regard to tourist operations over trackage outside of the general system used exclusively for such operations. FRA considers a tourist operation to be insular if its operations are limited to a separate enclave in such a way that there is no reasonable expectation that the safety of any member of the public, except a business guest, a licensee of the tourist operation or an affiliated entity, or a trespasser would be affected by the operation. A tourist operation will not be considered insular if one or more of the following exists on its line:

- A public highway-rail crossing that is in use;
- An at-grade rail crossing that is in use;
- A bridge over a public road or waters used for commercial navigation; or
- A common corridor with a railroad, i.e., its operations are within 30 feet of those of any railroad.

When tourist operations are conducted on the general system, FRA exercises jurisdiction over them, and all of FRA's pertinent regulations apply to those operations unless a waiver is granted or a rule specifically excepts such operations (e.g., the passenger equipment safety standards contain an exception for these operations, 49 CFR 238.3(c)(3), even if conducted on the general system). When a tourist operation is conducted only on track used exclusively for that purpose, it is not part of the general system. The fact that a tourist operation has a switch that connects it to the general system does not make the tourist operation part of the general system if the tourist trains do not enter the general system and the general system railroad does not use the tourist operation's trackage for any purpose other than delivering or picking up shipments to or from the tourist operation itself.

If a tourist operation off the general system is insular, FRA does not exercise jurisdiction over it, and

none of FRA's rules apply. If, however, such an operation is not insular, FRA exercises jurisdiction over the operation, and some of FRA's rules (i.e., those that specifically apply beyond the general system to such operations) will apply. For example, FRA's rules on accident reporting, steam locomotives, and grade crossing signals apply to these non-insular tourist operations (see 49 CFR 225.3, 230.2 and 234.3), as do all of FRA's procedural rules (49 CFR parts 209, 211, and 216) and the Federal railroad safety statutes themselves.

In drafting safety rules, FRA has a specific obligation to consider financial, operational, or other factors that may be unique to tourist operations (49 U.S.C. 20103(f)). Accordingly, FRA is careful to consider those factors in determining whether any particular rule will apply to tourist operations. Therefore, although FRA asserts jurisdiction quite broadly over these operations, we work to ensure that the rules we issue are appropriate to their somewhat special circumstances.

It is important to note that FRA's exercise of its regulatory authority on a given matter does not preclude it from subsequently amending its regulations on that subject to bring in railroads originally excluded. More important, the self-imposed restrictions on FRA's exercise of regulatory authority in no way constrain its exercise of emergency order authority under section 203 of the Safety Act. That authority was designed to deal with imminent hazards not dealt with by existing regulations and/or so dangerous as to require immediate, ex parte action on the government's part. Thus, a railroad excluded from the reach of any of FRA's regulations is fully within the reach of FRA's emergency order authority, which is coextensive with FRA's statutory jurisdiction over all railroads.

## FRA's Policy on Jurisdiction over Passenger Operations

Under the Federal railroad safety laws, FRA has jurisdiction over all railroads except "rapid transit operations in an urban area that are not connected to the general railroad system of transportation" (49 U.S.C. 20102). Within the limits imposed by this authority, FRA exercises jurisdiction over all railroad passenger operations, regardless of the equipment they use, unless FRA has specifically stated below an exception to its exercise of jurisdiction for a particular type of operation. This policy is stated in general terms and does not change the reach of any particular regulation under its applicability section. That is, while FRA may generally assert jurisdiction over a type of operation here, a particular regulation may exclude that kind of operation from its reach. Therefore, this statement should be read in conjunction with the applicability sections of all of FRA's regulations.

### Intercity Passenger Operations

FRA exercises jurisdiction over all intercity passenger operations. Because of the nature of the service they provide, standard gage intercity operations are all considered part of the general railroad system, even if not physically connected to other portions of the system. Other intercity passenger operations that are not standard gage (such as a magnetic levitation system) are within FRA's jurisdiction even though not part of the general system.

### Commuter Operations

FRA exercises jurisdiction over all commuter operations. Congress apparently intended that FRA do so when it enacted the Federal Railroad Safety Act of 1970, and made that intention very clear in the 1982 and 1988 amendments to that act. FRA has attempted to follow that mandate consistently. A commuter system's connection to other railroads is not relevant under the rail safety statutes. In fact, FRA considers commuter railroads to be part of the general railroad system regardless of such connections.

FRA will presume that an operation is a commuter railroad if there is a statutory determination that Congress considers a particular service to be commuter rail. For example, in the Northeast Rail Service Act of 1981, 45 U.S.C. 1104(3), Congress listed specific commuter authorities. If that presumption does not apply, and the operation does not meet the description of a system that is presumptively urban rapid transit (see below), FRA will determine whether a system is commuter or urban rapid transit by analyzing all of the system's pertinent facts. FRA is likely to consider an operation to be a commuter railroad if:

- The system serves an urban area, its suburbs, and more distant outlying communities in the greater metropolitan area;
- The system's primary function is moving passengers back and forth between their places of employment in the city and their homes within the greater metropolitan area, and moving passengers from station to station within the immediate urban area is, at most, an incidental function; and
- The vast bulk of the system's trains are operated in the morning and evening peak periods with few trains at other hours.

Examples of commuter railroads include Metra and the Northern Indiana Commuter Transportation District in the Chicago area; Virginia Railway Express and the Maryland Area Rail Commuter (MARC) in the Washington area; and Metro-North, the Long Island Railroad, New Jersey Transit, and the Port Authority Trans Hudson (PATH) in the New York area.

**Other Short-Haul Passenger Service**

The Federal railroad safety statutes give FRA authority over "commuter or other short-haul railroad passenger service in a metropolitan or suburban area," (49 U.S.C. 20102). This means that, in addition to commuter service, there are other short-haul types of service that Congress intended that FRA reach. For example, a passenger system designed primarily to move intercity travelers from a downtown area to an airport, or from an airport to a resort area, would be one that does not have the transportation of commuters within a metropolitan area as its primary purpose. FRA would ordinarily exercise jurisdiction over such a system as "other short-haul service" unless it meets the definition of urban rapid transit and is not connected in a significant way to the general system.

**Urban Rapid Transit Operations**

One type of short-haul passenger service requires special treatment under the safety statutes: "rapid transit operations in an urban area." Only these operations are excluded from FRA's jurisdiction, and only if they are "not connected to the general railroad system." FRA will presume that an operation is an urban rapid transit operation if the system is not presumptively a commuter railroad (see discussion above) the operation is a subway or elevated operation with its own track system on which no other railroad may operate, has no highway-rail crossings at grade, operates within an urban area, and moves passengers from station to station within the urban area as one of its major functions.

Where neither the commuter railroad nor urban rapid transit presumptions applies, FRA will look at all of the facts pertinent to a particular operation to determine its proper characterization. FRA is likely to consider an operation to be urban rapid transit if:

- The operation serves an urban area (and may also serve its suburbs),
- Moving passengers from station to station within the urban boundaries is a major function of the system and there are multiple station stops within the city for that purpose (such an operation could still have the transportation of commuters as one of its major functions without being considered a commuter railroad), and
- The system provides frequent train service even outside the morning and evening peak periods.

Examples of urban rapid transit systems include the Metro in the Washington, D.C. area; Chicago Transit Authority; and the subway systems in New York, Boston, and Philadelphia. The type of equipment used by such a system is not determinative of its status. However, the kinds of vehicles ordinarily associated with street railways, trolleys, subways, and elevated railways are the types of vehicles most often used for urban rapid transit operations.

FRA can exercise jurisdiction over a rapid transit operation only if it is connected to the general railroad system, but need not exercise jurisdiction over every such operation that is so connected. FRA is aware of several different ways that rapid transit operations can be connected to the general system. Our policy on the exercise of jurisdiction will depend upon the nature of the connection(s). In general, a connection that involves operation of transit equipment as a part of, or over the lines of, the general system will trigger FRA's exercise of jurisdiction. Below, we review some of the more common types of connections and their effect on the agency's exercise of jurisdiction. This is not meant to be an exhaustive list of connections.

**Rapid Transit Connections Sufficient to Trigger FRA's Exercise of Jurisdiction**

Certain types of connections to the general railroad system will cause FRA to exercise jurisdiction over the rapid transit line to the extent it is connected. FRA will exercise jurisdiction over the portion of a rapid transit operation that is conducted as a part of or over the lines of the general system. For example, rapid transit operations are conducted on the lines of the general system where the rapid transit operation and other railroad use the same track. FRA will exercise its jurisdiction over the operations conducted on the general system. In situations involving joint use of the same track, it does not matter that the rapid transit operation occupies the track only at times when the freight, commuter, or intercity passenger railroad that shares the track is not operating. While such time separation could provide the basis for waiver of certain of FRA's rules (see 49 CFR Part 211), it does not mean that FRA will not exercise jurisdiction.

However, FRA will exercise jurisdiction over only the portions of the rapid transit operation that are conducted on the general system. For example, a rapid transit line that operates over the general system for a portion of its length but has significant portions of street railway that are not used by conventional railroads would be subject to FRA's rules only with respect to the general system portion. The remaining portions would not be subject to FRA's rules. If the non-general system portions of the rapid transit line are considered a "rail fixed guideway system" under 49 CFR Part 659, those rules, issued by the Federal Transit Administration (FTA), would apply to them.

Another connection to the general system sufficient to warrant FRA's exercise of jurisdiction is a railroad crossing at-grade where the rapid transit operation and other railroad cross each other's tracks. In this situation, FRA will exercise its jurisdiction sufficiently to assure safe operations over the at-grade railroad crossing. FRA will also exercise jurisdiction to a limited extent over a rapid transit operation that, while not operated on the same tracks as the conventional railroad, is connected to the general system by virtue of operating in a shared right-of-way involving joint control of trains. For example, if a rapid transit line and freight railroad were to operate over a movable bridge and were subject to the same authority concerning its use (e.g., the same tower operator controls trains of both operations), FRA will exercise jurisdiction in a manner sufficient to ensure safety at this point of connection. Also, where transit operations share highway-rail grade crossings with conventional railroads, FRA expects both systems to observe its signal rules. For example, FRA expects both railroads to observe the provision of its rule on grade crossing signals that requires prompt reports of warning system malfunctions (see 49 CFR part 234). FRA believes these connections present sufficient intermingling of the rapid transit and general system operations to pose significant hazards to one or both operations and, in the case of highway-rail grade crossings, to the motoring public. The safety of highway users of highway-rail grade crossings can best be protected if they get the same signals concerning the presence of any rail vehicles at the crossing and if they can react the same way to all rail vehicles.

**Rapid Transit Connections Not Sufficient to Trigger FRA's Exercise of Jurisdiction**

Although FRA could exercise jurisdiction over a rapid transit operation based on any connection it has to the general railroad system, FRA believes there are certain connections that are too minimal to warrant the exercise of its jurisdiction. For example, a rapid transit system that has a switch for receiving shipments from the general system railroad is not one over which FRA would assert jurisdiction. This assumes that the switch is used only for that purpose. In that case, any entry onto the rapid transit line by the freight railroad would be for a very short distance and solely for the purpose of dropping off or picking up cars. In this situation, the rapid transit line is in the same situation as any shipper or consignee; without this sort of connection, it cannot receive or offer goods by rail.

Mere use of a common right-of-way or corridor in which the conventional railroad and rapid transit operation do not share any means of train control, have a rail crossing at grade, or operate over the same highway-rail grade crossings would not trigger FRA's exercise of jurisdiction. In this context, the presence of intrusion detection devices to alert one or both carriers to incursions by the other one would not be considered a means of common train control. These common rights of way are often designed so that the two systems function completely independently of each other. FRA and FTA will coordinate with rapid transit agencies and railroads wherever there are concerns about sufficient intrusion detection and related safety measures designed to avoid a collision between rapid transit trains and conventional equipment.

Where these very minimal connections exist, FRA will not exercise jurisdiction unless and until an emergency situation arises involving such a connection, which is a very unlikely event. However, if such a system is properly considered a rail fixed guideway system, FTA's rules (49 CFR Part 659) will apply to it.

A rapid transit railroad may apply to FRA for a waiver of any FRA regulations (see 49 CFR Part 211). FRA will seek FTA's views whenever a rapid transit operation petitions FRA for a waiver of its safety rules. In granting or denying any such waiver, FRA will make clear whether its rules do not apply to any segments of the operation so that it is clear where FTA's rules do apply.

**Coordination of the FRA and FTA Programs**

FTA's rules on rail fixed guideway systems (49 CFR Part 659) apply to any rapid transit systems or portions thereof not subject to FRA's rules. On rapid transit systems that are not sufficiently connected to the general railroad system to warrant FRA's exercise of jurisdiction (as explained above), FTA's rules will apply exclusively. On those rapid transit systems that are connected to the general system in such a way as warrant exercise of FRA's jurisdiction, only those portions of the rapid transit system that are connected to the general system will generally be subject to FRA's rules.

# Chapter 6

# Preemption

# Preemption

## Introduction

There is no provision contained in any of the relevant Federal railroad safety laws under which FRA operates that authorizes the issuance of binding preemption determinations (See the provisions of law previously contained in the Federal Railroad Safety Act of 1970 and the older Federal railroad safety statutes, that Public Law 103-272 (July 5, 1994) collectively repealed, reenacted without substantive change, and recodified at 49 U.S.C. Subtitle V, Part A). Consequently, preemption opinions provided by FRA are advisory in nature.

The Federal Railroad Safety Act of 1970, Pub. L. No. 91-458 (now codified, along with other railroad safety statutes, at 49 U.S.C. Chapters 201-213), gave FRA (as the delegate of the powers granted to the Secretary of Transportation under that law) authority over "every area of railroad safety" (49 U.S.C. 20103). The statute also declared that laws related to railroad safety shall be nationally uniform to the extent practicable" and that a State requirement related to railroad safety shall generally be preempted when the Secretary has issued a rule or order "covering the subject matter of the State requirement" (49 U.S.C. 20106). As part of the grand compromise leading to enactment of the 1970 Act, the statute also permitted States, in return for their loss of direct authority, to regulate almost any subject FRA has regulated, to participate in investigative activities under the Federal safety laws through either an annual certification or agreement, and to recommend enforcement action under those laws (49 U.S.C. 20105). In addition, the statute permitted participating States that recommend that FRA seek injunctive relief or impose civil penalties for violations of the safety laws to seek those remedies themselves if FRA has not taken action within specified periods (49 U.S.C. 20113).

FRA has issued rules concerning its State Safety Participation Program (SSPP) at 49 CFR Part 212. Those rules explain the basic principles of the program, discuss joint planning of inspection activities, and establish qualification requirements for State inspectors in the areas of track, signal and train control, motive power and equipment, operating practices, hazardous materials, and highway-rail grade crossings. Thus, every State has the opportunity to employ rail safety inspectors in all of the areas of railroad safety in which FRA has inspectors and, through its inspectors, to participate directly in inspection activities and enforcement of the Federal railroad safety regulations. States that are not certified participants in the Federal program for State participation may not cite a railroad or shipper for violations of Federal regulations. State inspectors are funded entirely by their respective State governments, and may be given other duties and assignments as their agencies deem necessary.

FRA-certified State inspectors usually conduct planned routine compliance inspections and also may conduct additional investigative and surveillance activities that are consistent with the overall program. In most ways, an FRA-certified State inspector has the same role and authority as a certified Federal inspector. In the area of their certification, they may inspect railroads and hazardous materials shippers and issue FRA inspection reports noting defects. They may cite violations of railroad safety regulations using the same forms as FRA inspectors, submit those violation reports for technical and legal review in the same manner, and participate in civil penalty negotiating sessions led by FRA attorneys (or, in the event of litigation, serve as witnesses) just as FRA inspectors do. However, State inspectors have authority only to the extent provided by their respective State statute or charter. For example, a State must specifically authorize its inspectors to go on shipper property in order to conduct hazardous materials inspections of shippers. Likewise, a State-certified inspector may conduct inspections in other states in an accompanying role. Moreover, State inspectors do not have authority that exceeds that of FRA inspectors. Both have

the authority (depending upon their areas of expertise) to issue special notices for repair (see 49 CFR Part 216), requiring railroads to remove a particular freight car or locomotive from service due to safety defects or to reduce the speed of trains over defective track.

**Preemption of State Law under the Federal Railroad Safety Laws**

The express preemption provision of the Federal railroad safety laws [1] is 49 U.S.C. 20106, which sets out the following framework for determining when State requirements related to railroad safety are preempted:

> A State may adopt or continue in force a law, regulation, or order related to railroad safety until the Secretary of Transportation (with respect to railroad safety matters), or the Secretary of Homeland Security (with respect to railroad security matters), prescribes a regulation or issues an order covering the subject matter of the State requirement. A State may adopt or continue in force an additional or more stringent law, regulation, or order related to railroad safety when the law, regulation, or order
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> (1) is necessary to eliminate or reduce an essentially local safety hazard;
> (2) is not incompatible with a law, regulation, or order of the United States Government; and
> (3) does not unreasonably burden interstate commerce.

This framework establishes two levels of inquiry. First, upon identification of the "subject matter" of the State rule, the question is whether the Secretary (ordinarily, acting through FRA) has taken affirmative or negative action "covering" that subject matter (i.e., whether FRA has occupied it, in whole or in part, either by issuing a rule or order, or by an agency decision, such as a policy statement or termination of a proposed rulemaking proceeding, that for a particular subject matter no rule or restriction is appropriate or necessary as a matter of rail safety). [2]

The Supreme Court has held that the term "covering the subject matter" requires that the Federal rule do more than "touch upon" or relate to the subject matter of the State requirement. The Court held that preemption will take effect only if Federal regulations "substantially subsume" the subject matter of the relevant State law (see Easterwood, 507 U.S. at 664-665 (1993)). If FRA has not so acted and if the State rule does not unduly burden interstate commerce, there is no further inquiry, and the State rule stands until FRA so acts to cover the subject matter.

Once FRA is found to have acted so as to cover the subject matter of the State rule, the inquiry passes to the second level: The State rule (which must be "an additional or more stringent" one) is

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[1] The laws that predated the Federal Railroad Safety Act of 1970 are now codified at 49 U.S.C. chapters 203-211. They do not contain express preemption provisions. However, in most of the areas covered by these statutes, they have been held to preempt the entire fields to which they pertain (safety appliances on rail cars, power brakes, locomotive inspection, and employee hours of service). See, e.g., Napier v. Atlantic Coast Line R.R., 272 U.S. 605 (1926), concerning field preemption in the area of locomotives. Accordingly, to the extent State laws requiring that trains stop for safety inspections would address any of these areas, these older laws would provide an additional basis for finding that the State laws are preempted.

[2] See CSX Transp., Inc. v. Easterwood, 507 U.S. 658 (1993); Ray v. Atlantic Richfield Co., 435 U.S. 151, 178 (1977); Napier v. Atlantic Coast Line R.R., 272 U.S. 605 (1926).

enforceable only if it satisfies a three-pronged test: (1) it is necessary to eliminate or reduce an essentially local safety hazard; (2) it is not incompatible with any Federal rule; and (3) it does not unreasonably burden interstate commerce. The legislative history of 49 U.S.C. 20106 makes it clear that the first prong does not contemplate statewide laws or rules; an "essentially local safety hazard" is to be read as one peculiar to a particular locality (H.R. Rep. 1194, 91 Cong. 2d Sess. 4104 (1970), *reprinted in* 1970 U.S.C.C.A.N. 4104, 4116-4117).

The Pipeline and Hazardous Materials Safety Administration (PHMSA), formerly the Research and Special Programs Administration (RSPA), another DOT agency, has also issued regulations [3] under 49 U.S.C. Chapter 51 that cover the subject matter of hazardous materials transportation and inspection of shipments by rail. FRA enforces these hazardous materials rules in the rail mode (see 49 CFR 1.49(s)). The rules call for inspection of hazardous materials shipments where they are accepted for transportation or placed in a train, and specifically permit this inspection to be performed in conjunction with the inspections required under FRA's freight car and power brake rules (see 49 CFR 174.9). The rules set specific requirements for the handling of radioactive materials when shipped by rail (49 CFR 174.700-750). A person may ship hazardous materials only after ensuring that all relevant requirements have been met (173.22), and, with regard to fissile radioactive materials, the shipper must take extra precautions before offering the shipment (173.22(c)). PHMSA's rules contain extensive additional requirements for the packaging and transportation of radioactive materials (173.401-476), including standards for the movement of certain fissile materials in controlled shipments with escorts (173.459). (These rules do not apply to hazardous materials shipments made by or under the direction of DOE or the Department of Defense for national security purposes and with appropriate escorts (173.7)).

Even though not issued by FRA under Chapter 201 of Title 49, PHMSA's rules have preemptive effect under 49 U.S.C. 20106. Case law holds that, even though issued by RSPA under Chapter 51, hazardous materials rules concerning railroads are railroad safety rules for purposes of preemption under Chapter 201. For example, in CSX Transportation, Inc. v. Public Utilities Comm of Ohio, 901 F.2d 497 (6th Cir. 1990), cert. denied, 498 U.S. 1066 (1991), the Sixth Circuit held that an Ohio statute authorizing the Public Utilities Commission to adopt and enforce as State requirements the Federal rules regulating the intermodal transportation of hazardous materials was preempted by Chapter 201, as were the State rules themselves. Having denied review of that decision, the Supreme Court has noted in a different case that Chapter 201's preemption provision is not limited to rules issued under that chapter (Easterwood, supra, 507 U.S. at 664, n. 4).

**Preemption of State Law under Chapter 51**

Unlike Chapter 201, which generally preempts regulations in an area that the Secretary has already regulated, under Chapter 51, States are generally free to develop and enforce their own hazardous materials regulatory scheme as long as the regulation is consistent with Federal law and regulations (See 49 U.S.C. 5125). With regard to certain subjects (e.g., placarding of hazardous materials shipments), a State or Tribal rule is preempted unless it is "substantively the same" as the Federal rule. On other subjects, the State or Tribal rule is preempted only if compliance with both that rule

[3] Chapter 51 directs the Secretary of Transportation to designate material (including an explosive, radioactive material, etiologic agent, flammable or combustible liquid or solid, poison, oxidizing or corrosive material, and compressed gas) or a group or class of material as hazardous when the Secretary decides that transporting the material in commerce . . . may pose an unreasonable risk to health and safety or property (49 U.S.C. 5103(a)). DOT has established nine classes of hazardous materials; both materials of interest to DOE, spent nuclear fuel and high-level radioactive waste, fall within Class 7, Radioactive materials. (See the Table of Hazardous Materials at 49 CFR 172.101 and Part 173, Subpart I, A Class 7 (Radioactive) Materials).

and the Federal rule is not possible or the State or Tribal rule is an obstacle to accomplishing the Federal rule.

PHMSA issues rules under Chapter 51 and is authorized to render determinations as to whether a State or Tribal requirement is preempted by Chapter 51 and to grant waivers of preemption of such a State or Tribal requirement. 49 U.S.C. § 5125(d) and (e). RSPA procedures for deciding applications for determinations of preemption and waivers of preemption are at 49 CFR Parts 107.201-107.227. However, as discussed above, courts have held that the preemption provision of Chapter 201 applies to all rail safety regulations, even in the hazardous materials area, and even if issued under Chapter 51. The Department of Transportation believes this is the correct reading of the law.

**Preemption and Accident Reporting**

States are not preempted from requiring railroads to provide immediate notification of accidents in order to enable the States promptly to launch their own investigation. In addition, States may require railroads to furnish them copies of monthly reports railroads file with FRA (*NARUC v. Coleman*, 542 F. 2d 11 (3d Cir. 1976). The majority of States participating in the State Rail Safety Participation Program have immediate telephonic accident reporting requirements.

# Chapter 7

# Inspector Hiring, Training, and Orientation

# Inspector Hiring, Training, and Orientation

## Hiring an Inspector

Coordination between FRA and States is particularly important when States add new inspectors. While the discipline and location of a new State inspector are the State's prerogative, State managers should discuss proposed program expansion options with FRA's regional management team. Early communication on inspector hiring will enable FRA to anticipate State on-the-job (OJT) training needs.

To further meld the interests of States and FRA, managers should seek FRA input on inspector hiring decisions. Active FRA involvement in the candidate review process is a good way to verify a candidate's qualifications prior to the hiring decision. While States are ultimately responsible for hiring inspectors, FRA and states partner to train new inspectors. A dialogue between the manager and the FRA discipline specialist will help States obtain adequate experience information from inspector candidates and meet their journeyman or apprentice entry-status targets. Some States obtain FRA input into the hiring process by including discipline specialists or senior FRA inspectors on hiring panels. At a minimum, States are encouraged to forward all application materials and résumés of inspector applicants to appropriate FRA technical experts.

## State Inspector Employment Options

There are three inspector employment options available to States:

- Hire a candidate who does not meet apprentice criteria;
- Hire a candidate who meets apprentice criteria, but is not qualified at the journeyman level; and,
- Hire a candidate who is qualified at the journeyman level.

**State Candidate Does Not Meet Apprentice Criteria -** FRA does not recognize State inspector candidates who fail to meet apprentice criteria as program participants. This person is classified as a "Trainee". If a State hires a Trainee, the State will be responsible for acquisition of training for the inspector to reach the proficiency level required to begin on-the-job Apprentice training with FRA. When a Trainee is hired, the State must identify appropriate and craft-specific correspondence, classroom, or practical training required before the Trainee can be qualified as an Apprentice.

In addition to State-procured remedial training, States that have qualified inspectors in the Trainee's technical discipline must have the Trainee complete appropriate discipline tasks in the *Level II Standards for Inspector Trainees.* FRA inspectors will not accompany State Trainees as they perform Level II Guide tasks applicable to the technical discipline for which they were hired. The Training Verification Forms, used to track progress, are to be maintained by the Trainee, who will submit copies to the Regional Discipline Specialist, either upon request or when all of the standards in the technical discipline have been completed.

After finishing remedial training, the Trainee may be required to successfully complete a field evaluation before being accepted into the Apprentice training program. If a field evaluation is deemed necessary, it will be arranged by the Discipline Specialist and conducted by the Discipline Specialist or a qualified FRA inspector.

The Apprentice's primary mode of instruction will come from on-the-job training by FRA or State inspectors. Managers must coordinate with FRA to make the apprentice available for in-State and out-of-State travel to ensure the apprentice receives a broad, continuous training experience with different qualified inspectors working in different railroad operating environments. Limiting potential trainers will not benefit the Apprentice. In most instances, approximately 75 percent of an Apprentice inspector's training will require away-from-home travel. All travel and training expenses for Apprentice training are the responsibility of the State. OJT training inspectors can be either qualified FRA inspectors or certified state inspectors. FRA has an obligation to ensure that the training experience has been conducted in a professional and exacting manner before certifying the candidate to inspect for compliance with Federal standards. That obligation requires that FRA be the primary agency conducting inspector qualification training.

States are strongly encouraged to employ qualified journeyman inspector candidates. The extended duration of Trainee and Apprentice training produces no near-term safety benefits. The Trainee and the Apprentice inspector option is not a wise investment of public funds due to the prolonged training term and the considerable investment of salary and travel resources required to support an inspector candidate who lacks railroad experience and knowledge.

## Minimum Inspector Qualifications

**Track Inspector -** The track inspector is required, at a minimum, to be able to conduct independent inspections of track structures for the purpose of determining compliance with the Track Safety Standards (49 CFR Part 213), to make reports of those inspections, and to recommend enforcement actions when appropriate to promote compliance.

**Motive Power & Equipment Inspector -** The MP&E inspector is required, at a minimum, to be able to conduct independent inspections of railroad equipment to determine compliance with all sections of the Freight Car Safety Standards (49 CFR Part 215), Safety Glazing Standards (49 CFR Part 223), Locomotive Safety Standards (49 CFR Part 229), Safety Appliance Standards (49 CFR Part 231), and Power Brake Standards (49 CFR Part 232), to make reports of those inspections and to recommend enforcement actions when appropriate to promote compliance.

**Operating Practices Inspector -** The operating practices inspector is required, at a minimum, to be able to conduct independent inspections to determine compliance with all sections of the Federal operating practice regulations (49 CFR Parts 217, 218, 219, 220, 221, 225, 228, and 240 and the Hours of Service Act (45 U.S.C. 61-64b), to make reports of those inspections, and to recommend enforcement actions when appropriate to promote compliance.

**Hazardous Materials Inspector -** The hazardous materials inspector is required, at a minimum, to be able to conduct independent inspections to determine compliance with all pertinent sections of the Federal hazardous materials regulations (49 CFR Parts 171 through 174, and 179), to make reports of those inspections and findings, and to recommend enforcement actions when appropriate to promote compliance.

**State Candidate Meets Apprentice Criteria -** Managers must coordinate with FRA to Regulations for each inspection discipline include the following basic requirements for Apprentice inspectors:

> An Apprentice inspector will demonstrate basic knowledge and abilities pertinent to the safety discipline before being enrolled in an apprentice-training program.
>
> States must enroll the Apprentice inspector in a program of training prescribed by the Associate Administrator leading to qualification as an inspector. The Apprentice inspector may not participate in investigative and surveillance activities, except as an assistant to an FRA inspector, while accompanying that inspector.

The Apprentice will be required to complete the appropriate discipline-specific portion of the Level II Standards for Inspector Trainees and the applicable Field Orientation Training Guide at the GS 9 proficiency level. If, during the GS 9 level field training, an Apprentice achieves the standards specified for the GS 11 proficiency level for one or more tasks, they need not repeat those tasks to prove proficiency at the GS 11 level. If they achieve the GS 9 level of proficiency, they must complete the tasks again at the GS 11 proficiency level. Completion of the Field Orientation Training Guide at the GS 11 proficiency level will result in certification.

**State Candidate Qualifies at the Journeyman Level -** The Journeyman State inspector candidate will be required to complete the applicable Field Orientation Training Guide at the GS 11 proficiency level.

**State Training Commitments for Trainees and Apprentices -** The best State program implementation or expansion option is to hire inspector candidates that meet all experience and knowledge requirements of Federal regulations pertaining to State Rail Safety Participation (49 CFR Part 212). The commitment of the State and the inspector candidate will determine qualification progress for Trainees and Apprentices during an extensive period of on-the-job training. Classroom training by FRA's Technical Training Standards Division (TTSD) will not be offered to Trainees. TTSD will assign Apprentice inspectors to attend training, but all involved should understand the Apprentice may not achieve the same level of learning as journey level inspectors because TTSD training is designed to maintain and enhance existing inspection and investigative skills.

The Trainee route is a daunting consideration for States in terms of time and monetary resource commitments. Travel and tuition costs for college or contractor-provided coursework can be substantial. Correspondence courses are time intensive and must be closely monitored by State managers and then verified by the FRA Discipline Specialist. States that do not have qualified inspectors in the Trainee's prospective discipline will not be able to offer the Trainee any practical, discipline-specific field opportunities to observe and learn from regular inspection activities. Because resource commitments for Trainee training will vary widely from State to State, it is impossible to specify an exact curriculum that a Trainee must meet the qualify as an Apprentice. Therefore, when a State deems the Trainee to be Apprentice qualified, FRA may require the Apprentice to successfully complete a field evaluation arranged by the Discipline Specialist and conducted by the Specialist or a qualified FRA inspector before the Trainee will be accepted into the Apprentice training program.

**Signals and Train Control Inspector -** The S&TC inspector is required, at a minimum, to be able to conduct independent inspections of all types of signal and train control systems to determine compliance with the Rules, Standards and Instructions for Railroad Signal Systems (49 CFR Part 236), to make reports of those inspections, and to recommend the institution of enforcement actions when appropriate to promote compliance. In addition, the S&TC inspector is required to be able to conduct independent inspections of all types of highway-rail grade crossing warning systems for the purpose of determining compliance with Grade Crossing Signal System Safety Rules (49 CFR Part 234), to make reports of those inspections, and to recommend enforcement actions when appropriate to promote compliance.

**Grade Crossing Signal System Inspector -** The highway-rail grade crossing inspector is required, at a minimum, to be able to conduct independent inspections of all types of highway-rail grade crossing warning systems to determine compliance with Grade Crossing Signal System Safety Rules (49 CFR Part 234), to make reports of those inspections, and to recommend enforcement actions when appropriate to promote compliance.

**Special Considerations for S&TC or Grade Crossing Inspectors**

The highly technical and rapidly evolving nature of the S&TC discipline requires greater diligence than other disciplines to determine prospective inspector qualifications. As with other safety disciplines, States are encouraged to forward all application materials and resumes of inspector candidates to the regional S&TC specialist. A meeting or conference call should be held as soon as possible after the specialist receives the qualification information. At a minimum, the following persons should attend the meeting or conference call: the regional S&TC specialist, FRA's S&TC training specialist, the State program manager, and the State discipline supervisor (where applicable). Specifics to be addressed at this initial meeting are:

A. Prior signal or general railroad experience the candidate may possesses. Also discuss the candidate's prior experience related to signal or grade crossing inspector duties (proficiency with computers, etc.). Ultimately, the meeting will determine if the candidate meets the following minimum requirements of 49 CFR 212.211 and/or 212.233:

    1. Working basic knowledge of electricity;
    2. The ability to use electrical test equipment in direct current and alternating current circuits; and
    3. A basic knowledge of highway-rail grade crossing (or signal and train control if applicable) inspection and maintenance methods and procedures.

B. FRA might determine that the regional specialist needs to further evaluate the qualifications of the person hired by meeting for a practice inspection at a mutually agreed upon railroad property.

C. The State will provide FRA with contact information for the inspector candidate.

# First Steps for New Inspectors

## Overview

When a new inspector is hired, the manager should notify appropriate FRA personnel immediately to insure the inspector is added to FRA databases related to inspector communication, identification, training, and reporting. First, the State manager transmits the inspector's résumé to FRA's State Director. The State Director works with the regional specialist and the Technical Standards Training Division (TTSD) to verify the new inspector's knowledge, skills, and abilities. The assessment leads to a decision of the inspector's status: journeyman, apprentice, or does not meet apprentice level. This verification process underscores the importance of a pre-hiring candidate qualification process that involves regional technical experts.

The direction of the inspector's training depends on the TTSD experience assessment. If the new inspector is classified as a journeyman or an apprentice, the State manager contacts the regional discipline specialist to develop on-the-job training schedules for the new inspector. The State manager also contacts FRA's Regional Information Technology Specialist (RITS) to request creation of an e-mail information distribution protocol for the new State employee and to secure a notebook computer for the inspector. The RITS also adds the inspector to FRA's Global Address List.

When a new State inspector is accepted into the program, the FRA State Director assigns an inspector identification number and directs FRA headquarters to add the inspector to reporting and information databases. The State Director informs the manager and region of the assigned identification number. State managers should direct the new inspector to include the unique ID number on all inspection reports as an accompanying inspector while in training. The ID number is linked to inspection or enforcement data produced by the inspector, including inspection days worked during training. An inspector's ID number also will be used by the manager and inspector to track future work outputs on FRA inspection databases.

In addition to reviewing an inspector candidate's experience resume, FRA may elect to conduct interviews or field assessments to ascertain an inspector candidate's program entry status. If the TTSD determines that the inspector does not meet journey or apprentice level requirements, processes to integrate the inspector into FRA's inspection system are stopped, pending State action to provide remedial training required to attain the apprentice classification.

## TTSD Determines New Employee Status

TTSD determines the new employee's status in accordance with Federal regulations (49 CFR Part 212), governing the State Rail Safety Participation Program. The two training classifications for new State inspectors are journeyman and apprentice. A journeyman meets all experience and/or education requirements for a technical discipline. The apprentice does not meet experience and/or education requirements of a technical discipline, but has rudimentary knowledge of a technical discipline. The State manager and the new State employee will receive formal notice of the candidate's program entry status. Journeyman and apprentice trainees are defined and training programs are discussed in the following sections. State options for inspectors who fail to qualify as apprentices are also discussed.

**The Journeyman Inspector -** Federal regulations prescribe basic experience and/or education requirements to achieve journeyman competency and enter the training program to become a certified inspector in 1 of the 5 areas of rail safety specialization. The minimum experience

requirement is at least 4 years of recent experience relevant to the discipline. A specifically defined bachelor's degree may be substituted for 2 years of experience for prospective inspectors in the following disciplines: track, motive power & equipment, signal & train control, and hazardous materials. The operating practices discipline does not have a provision allowing education to substitute for 4 years of experience. The new State employee qualifying as a journeyman will be immediately scheduled for an on-the-job training regimen defined by a discipline specific Field Training and Orientation Guide.

**The Apprentice Inspector** - The apprentice inspector must demonstrate basic knowledge of the discipline subject matter to enter FRA's OJT program. Even though the requisite competency standard is met, the apprentice may still lack the basic knowledge and skills to begin the on-the-job training program defined by a discipline specific Field Orientation Training Guide. In this instance, FRA may prescribe a training program for the apprentice that includes completion of the Level I and/ or Level II Standards for FRA inspector trainees. A condition of achieving an apprentice designation may be the successful completion of designated remedial training, such as correspondence or classroom instruction. The appropriate entry level and any conditional training will be determined by the TTSD discipline specialist, in consultation with the regional discipline specialist and the State Director. The State manager will be advised of the apprentice's status and training program.

As noted above, the apprentice's primary mode of instruction will come from on-the-job training by FRA inspectors; therefore, the State must coordinate with FRA to make the apprentice available for travel. The training term for apprentice and journeyman inspector candidates will be expedited if the State authorizes in-State and out-of-State travel, thereby ensuring that the apprentice receives a broad, continuous training experience with different qualified inspectors. Apprentice inspectors must complete OJT tasks twice at different proficiency levels. The first time through the tasks, the standards for apprentice inspectors are lower than standards for journey-level inspectors. For example, the standard for the apprentice inspector may be to achieve a proficiency rate of 75%, while the standard for a fully qualified inspector candidate is 90%. When apprentice inspectors achieve all of the applicable standards, they may immediately begin working on the task standards for journey-level inspectors.

**Incumbent Does Not Qualify at the Journey or Apprentice Level** - Federal regulations governing State Rail Safety Participation, 49 CFR Part 212, do not allow FRA to accept a State inspector candidate into the training program at the apprentice level if the candidate lacks basic knowledge and skills. Therefore, if a State hires someone that does not meet basic qualification requirements, the State will be responsible for acquisition of training to reach a proficiency level that entitles the incumbent to qualify as an apprentice.

The regional discipline specialist or a designated FRA inspector will evaluate the State inspector candidate upon completion of remedial training. If the candidate demonstrates basic knowledge and abilities pertinent to the safety discipline, the employee will be enrolled in a training program for apprentice inspectors. If the regional discipline specialist determines the apprentice inspector candidate does not meet basic qualification requirements, the State will be responsible for any additional qualification training.

## Guidance Materials

The General Manual and five discipline-specific compliance manuals have been developed to promote uniformity and consistency in FRA's national safety assurance and compliance program.

The manuals are specifically designed for rail safety inspectors and technical specialists throughout the country who monitor compliance with Federal safety regulations and standards. The manuals enable State and FRA inspectors to successfully promote common rail safety goals by providing the guidance inspectors and specialists need to effectively perform their duties, Technical guides and manuals are available from FRA's regional specialists. The State manager will advise new inspectors of appropriate discipline guidance manuals and how they may be obtained. New inspectors should also receive the FRA Safety & Health Committee publication, "Recommended Safe Work Procedures."

## FRA-Provided Equipment

FRA may provide inspectors with notebook computers. The State manager will secure the equipment from FRA's regional information technology specialist (RITS.) When an inspector position becomes vacant, the equipment may be reassigned to a newly hired inspector. State inspectors who receive FRA equipment must sign a Personal Property Hand Receipt (DOT F 4420.4) acknowledging receipt of the equipment.

## State-Provided Equipment

A. **Inspection Equipment -** States are responsible for securing inspection measurement devices, gages and testing equipment for their inspectors. State managers should refer to the General Manual, discipline enforcement manuals and technical bulletins to identify current inspection equipment requirements. In general, track, motive power & equipment, operating practices, hazardous materials, and signal & train control inspectors routinely use the following tools:

Track Equipment
- level board/gage
- 62' string line kit to measure curves
- 25' tape measure
- taper gage to measure frog wear
- 18" straight edge
- fall protection

MP&E Equipment
- high flange gage
- thin flange gage
- tape measure
- side bearing gage
- Flashlight

OP Equipment
- steel tape/measuring wheel
- stop watch
- radar gun

HM Equipment
- Door securement straps
- bolt cutters
- safety seals
- steel tape/measuring wheel

S&TC Equipment
- fluke meter
- analog testers (Megger)
- steel tape/measuring wheel
- multi-shunt/head clamps
- GPS locator
- stopwatch
- triplett meter
- insulted joint tester
- rail slider (part of bridge gear)
- strobe light mini-bar
- laser range finder
- frequency meter/shunt
- fall protection

B. **Personal Protective Equipment -** States must provide inspectors with personal protective equipment and/or clothing. Protective equipment for eyes, head, and extremities; protective clothing/harnesses; and respiratory devices shall be provided, used, and maintained in a sanitary and reliable condition. The provision and use of personal protective equipment should comply with applicable requirements set forth in 29 CFR 1910.

States should advise inspectors to use personal protective equipment and/or clothing whenever the

need is clearly indicated. Inspectors are not to expose themselves to known hazardous conditions, such as tank cars leaking hazardous chemicals, and are to use good judgment in assessing potential exposure to hazardous conditions. Emergency response is not one of the inspector's duties. State managers should ensure that employees potentially subject to exposure to a hazardous environment are provided with the necessary personal protective equipment and/or clothing. At a minimum, State inspectors should be equipped with the following personal protective equipment:

1. Head Protection.
    a. Hard hats must be worn in designated areas.
    b. Hard hats provided for impact and/or penetration protection shall meet the requirements and specifications contained in the most recent ANSI Z89.1.
    c. Hard hats provided to employees exposed to high voltage electrical shock and burns shall meet the requirements and specifications contained in ANSI Z89.1.

2. Protective Footwear.
    a. Safety shoes shall be provided and their use limited to those employees who are exposed to hazardous environments. In addition, other protective footwear such as rubber boots may be required due to the nature of the exposure.
    b. Safety shoes provided to employees shall meet the requirements and specifications contained in the most recent ANSI Z41.1.
    c. Supervisory personnel shall determine which employees are eligible for safety shoes.
    d. Employees who have foot care problems that prevent them from wearing safety shoes will not be required to wear them. However, suitable protective devices such as toe guards or similar protective devices which can be worn over shoes must be utilized.

3. Eye and Face Protection.
    a. Only protective eyewear which meets or exceeds ALL the requirements of the ANSI Z87.1 standard (referenced in OSHA regulations) is approved for use in an industrial environment.
    b. Protective eyewear must be worn in designated areas.

4. Hearing Protection.
    a. Hearing protection meeting EPA standards as per 40 CFR 211, shall be provided and required in designated areas and when riding on a locomotive.
    b. Supervisors shall consult with the FRA Industrial Hygienist, located in the Office of Safety, on items concerning hearing protection.
    c. Inspectors shall be given the choice of using hearing inserts and/or ear muffs.

**Other Personal Protective Equipment/Clothing.** Other items may be provided as required, such as rain gear, gloves, overalls, reflective vests, and climbing gear. State managers should refer to the General Manual, discipline enforcement manuals and technical bulletins to identify current inspector personal protective equipment needs. States should also assess the merits of radiation exposure devices for inspectors working in close proximity to shipments of radioactive materials.

# On-The-Job Training

FRA employs discipline-specific Field Orientation Training Guides for on-the-job training (OJT) of State personnel who qualify at the journeyman or apprentice level. The task inventories contained in the OJT guides provide the foundation of the OJT program. The inventories are the product of the Technical Training Standards Division (TTSD), which develops, implements, and monitors a formal OJT program for new State inspectors and inspector trainees. The development methodology uses a technique which validates the standards against the inspection program activity codes and any policies and guidelines available in discipline enforcement manuals and technical bulletins.

These standards supplant previous methods the organization employed to evaluate proficiency levels of new inspectors. The use of written tests or other mechanisms to supplement the current certification procedures are not acceptable. They are, in fact, prohibited by law.

The OJT standards intentionally require a significant amount of practice because proficiency improves with repetition. Since higher proficiency levels serve both organizational and individual needs, the TTSD encourages FRA regions to apply "partial certification" whenever possible. Analysis of the table in this section is critical for understanding the process. Those involved in the process should take particular note of the Conditions column, which places responsibility on the organization (FRA or State) to provide the tools, equipment, documentation, and opportunities for practice necessary for a new inspector to achieve the required performance standard.

**OJT Roles and Responsibilities**

The **FRA Regional Specialist** serves as the overall coordinator of the discipline-specific OJT program in his/her region. He/she is primarily responsible for:

- Acting as the principal point of contact for the process, and ensuring the process is properly implemented;
- Ensuring that all new and experienced inspectors involved in the OJT process have received both hard copies of the guide and electronic copies of the checklist;
- Providing guidance to both the new and experienced inspectors in the process once they have received the guide;
- Working with the appropriate deputy regional administrator to arrange the OJT schedule for the new inspector, including assigning appropriate experienced inspectors to provide OJT;
- Ensuring that new State inspectors have access to all necessary supporting publications;
- Assisting the deputy regional administrator, as necessary, in coordinating with the State manager when a new State inspector is hired, including:

  - Establishing a three-way conversation with both the State manager and the new inspector as soon as practical.
  - Developing an on-the-job training schedule for the new inspector.

The **Deputy Regional Administrator** works with regional specialists to arrange the OJT schedule for the new inspector, including assigning appropriate experienced inspectors to provide the OJT. They must also work with the regional specialists, as necessary, to coordinate with the State manager when a new State inspector is hired, including:

- Establishing a conference call to include themselves, the appropriate regional specialists, the State manager and the new State inspector as soon as practical;

- Discussing out-of-State travel when it is necessary to accommodate an acceptable OJT schedule; and
- Facilitating development of an OJT training schedule for the new inspector.

The **New Inspector** has the responsibility to pay close attention to inspectors providing OJT, and to take advantage of the knowledge and experience the inspectors have to offer. These experienced inspectors will facilitate the OJT, with support from the regional specialist. The experienced inspector will provide new inspectors with practical information and advice on the requirements and responsibilities of a certified safety inspector.

The **Experienced Inspector** serves as the OJT trainer. They have an obligation to communicate with the regional specialist and the new inspector; to ensure the standards are properly applied in all phases of the field training; and to provide daily briefings at the beginning and end of each day on the specific tasks for that day. The experienced inspector should be aware of the obligations of the new inspector and ensure a positive training experience.

The **TTSD Specialist** serves as the point of contact, as necessary, between headquarters, the regions, and the people being trained. He/she provides any necessary technical advice about the process, coaching everyone involved in how the process is to be implemented. This includes intervention with the region if they receive information from a State manager that the standards are not being followed during OJT of a new State inspector. The TTSD specialist tracks the overall implementation, advising the TTSD coordinator when problems occur or changes are needed to enhance the process. He/she is also responsible for distribution of any self-study materials, and management of the test results particular to that task.

The **State Managers** will work with the deputy regional administrators and regional specialists to ensure a reasonable training schedule is developed, both within and outside the State boundaries, if necessary. They have a primary obligation to monitor the progress of the new State inspectors and to provide positive intervention whenever necessary to accommodate the process. State managers should immediately communicate with either the TTSD coordinator or TTSD specialist if they have issues or need clarification on the OJT process.

The State manager will advise the State Liaison when a State hires a new inspector so that the appropriate guide can be assigned. TTSD will advise participating State managers to work with the appropriate region in developing a reasonable schedule for the training. TTSD will also advise participating States that FRA cannot always arrange to have experienced inspectors work with new inspectors in their home State, and that it may be necessary for them to fund travel to another State to facilitate training.

The **FRA Headquarters Staff Director** of the discipline must understand and fully support the OJT process. This includes advising the TTSD specialist of any new duties that have been established for inspectors, and providing feedback if they learn of any problems or change in recommendations associated with the process.

The **TTSD Coordinator** is the overall process owner. As such, he/she provides general administrative, technical, and coaching assistance to anyone in the organization who has issues with process implementation. He/she has a primary obligation to act on any problems or change recommendations associated with the process.

**Guidelines for Coordination and Administration of OJT**

The first week or so of employment typically involves administrative details and an overall orientation into the agency. As soon as these details are completed, the new inspector should contact the regional specialist to become familiar with the OJT process, and work with the specialist to establish an OJT schedule. This is also the appropriate time to discuss and begin to work on those tasks that are self-study in nature.

**OJT Duty Modules**

Each day of OJT should focus on one of the major duties of the guide to the extent possible. A graphic explanation of the duty module is included on the following page. Once the duty module has been selected, there should be both an initial briefing on the tasks of that module, and a debriefing at the end of each day. The purpose of the debriefing is to go through the day's activities, and to focus on each of the tasks associated with the duty selected. The checklist at the end of each module can be used as a feedback mechanism during this debriefing. This checklist may only be used for measuring performance. It is inappropriate to use the checklist for personal comments that are not performance related. If there is a need to communicate such information to regional supervision, other means should be employed.

New inspectors are responsible for maintaining and transmitting the checklists to the OJT Liaison. Checklists are to be updated daily and transmitted electronically weekly. The OJT Liaison sends weekly trainees progress reports to state managers, the training inspector, and to the appropriate regional discipline specialist. The electronic checklist, with instructions, will be provided by the regional specialist on request.

The checklists should be completed whenever all or part of any particular task standard has been accomplished. If part of the task standard has not been accomplished, then "No" should be entered in the Yes/No column, and the Comments column should indicate how much of the task standard was accomplished.

**Example**: The new inspector is required to complete a task 5 times with 100% accuracy. He completes the task 2 times with 100% accuracy while working with inspector A, and records this on his form in the "Comments" column. When the new inspector works with another experienced inspector, there is a record to show how much more needs to be done to fulfill the standard. In this example, it would require another 3 times with 100% accuracy.

When all of the required tasks for any particular duty have been completed, paper or electronic copies of the checklists must be forwarded to the regional specialist for review. The electronic filename scheme for the checklist is: **OJT Xxxxxxx**, where the X's are the new inspector's last name. Example: **OJT Baldwin.**

**TRAINING**: **On-the-Job Training**

**Duty xx: (Title)**

- **The "Duty" is the description of a series of mission-related tasks that must be performed to meet the requirements of the job.**
- **Duty sources should be found in either the discipline-specific enforcement manual, the RISPC activity codes for that discipline, or both.**
- **There must be a "Duty" that covers each activity code in the Railroad Inspection Program for the Personal Computer (RISCP) and/or manual. In other words, the activity codes should be used to verify the duties.**
- **State apprentice inspectors will complete the OJT process twice. The apprentice must be able to perform tasks at a lower prescribed proficiency level, or fully, before advancing to journeyman status.**
- **State journeyman inspectors must also be able to perform all tasks at the prescribed proficiency level to become certified.**

| **Performance**<br>**Tasks** | **Conditions**<br>**Tools, Equipment, Documents, Practice** | **Standards**<br>**Repetition, Completeness, Accuracy** |
|---|---|---|
| **Performance** is a basic description of the task or related tasks that the learner should be able to do. It should be no more than one sentence in length. | **Conditions** are the things the organization, including the inspectors teaching the learners, are required to give the learners so that they can prepare themselves to meet the standards that relate to this task. They include:<br>• Gauges, level boards, or other tools and equipment necessary.<br>• Documents, such as the applicable CFR Part/Section, the applicable enforcement manual, a computer with RISPC software, etc.<br>• Practice is essential for the sake of fairness, and the enhancement of proficiency. It is not reasonable to expect certain things of people unless they're given sufficient exposure to it. A good rule of thumb is at least two practice sessions for each repetition expected in the **Standards** column. | **Standards** start with an educational verb, preferably from a verb listing such as the one used by SIDT. The amount of repetition, the completeness, and the percentage of accuracy are driven by the complexity of the related task, as described in the **"Performance"** column.<br>• Repetition might be one time for a simple task such as identifying the number of placards required on a carload of one HM product, or it might be 3, 4, or 5 repeats for a complex task such as inspecting a turnout.<br>• Completeness is the ability to show the person doing the evaluation that the learner is able to go through all of the steps necessary to successfully perform the task. It is a strong indicator of proficiency.<br>• Accuracy is stated in percentages. A fairness doctrine is required here. For example, we might require 100% accuracy for a simple task or one that is absolutely essential, but 90% accuracy for a more complex task that takes into consideration the fact that anyone can miss a non-complying condition from time-to-time. |

**OJT Field Work -** There is no required sequential order for completion of the standards associated with any of the duties or tasks, and no attempt is made to weigh any of the duties. Although OJT should be focused on a particular duty, it is anticipated that the task standards will actually be accomplished based on available inspection training opportunities.

New inspectors will have different levels of proficiency when they enter on duty. Some new inspectors will be highly competent because of their previous employment. Where new inspectors are already well-versed on all or some of the standards, the experienced inspectors providing the training should use the guide to validate the new inspector's level of expertise. In other words, the checklists should still be completed, if only to illustrate that the new inspector is competent.

Unless otherwise specified, all of the standards listed in this guide should be completed within nine months of a new inspector's employment date. There is no minimum time frame for completion. For example, if a new inspector has a very high level of proficiency, it may be feasible to complete the guide early.

The standards are based on the knowledge, skills, and ability levels of journeyman level inspectors. When the standards are used to provide OJT to FRA GS-09 or State apprentice level inspectors, the focus is on achieving a baseline proficiency standard below the standard set for journeyman level inspectors. The apprentice must achieve a certain level of proficiency for each task before advancement to the standard required for journeyman level inspectors. In the event the apprentice inspector achieves all applicable standards, journeyman level training may commence.

Each of the discipline-specific guides includes self-study requirements, which can vary significantly in length. The OP guide, for example, includes 29 pages of self-study requirements. The guides may also include requirements that new inspectors draft a short narrative report that is intended to measure, in a minimal way, a level of proficiency**.** Regions must apply these narrative reports and self-study requirements as follows:

- Regions should not expect new inspectors to complete these tasks outside of normal working hours. There should be sufficient time, somewhere in the overall OJT scheduling process, to ensure the inspectors can perform these tasks during their regular tours of duty.

- The intent of the narrative report requirements is to give a ***maximum*** length. For example, a standard may cite a maximum of two pages. If a new inspector can satisfy this type of standard in one page or less, that is perfectly acceptable. Also, there is no intent to use these standards to measure a new inspector's report-writing proficiency level. Regions should not attempt to evaluate these short reports for grammar, punctuation, and style. That is another issue, and should be addressed separately.

- The intent of the self-study standards requiring a 100 percent correct response is to make certain the new inspector reads the applicable source document, and provides the region with evidence that he or she has achieved a reasonable degree of understanding by "filling in the blanks." If a new inspector achieves an 80 percent correct score, he or she should not be required to perform the task again in total. They should instead be guided through what they performed correctly, what they missed, and asked to revise only those areas that were incorrect.

At regular intervals, the regional specialist, the training specialist, and the employee will review the training accomplished thus far and take any action deemed appropriate, such as focus additional training in areas needed and/or remove the training status limitation so the inspector may begin limited inspection activity while continuing the OJT process. The State manager is encouraged to consult with the regional specialist and the employee about the progress of training.

## OJT Monitoring Process

The OJT training tracking system monitors training progress for State and FRA inspectors. The monitoring process is explained in TTSD's Field Orientation Training Guides for each technical discipline, which includes On-the-Job Training Verification Forms used to report progress. Training guides include task inventories that provide the foundation of the OJT training program; the new inspector must complete all tasks in the discipline inventory to become fully qualified.

Each task is defined by performance conditions and standards that the new inspector must meet to complete the task successfully. The standards specify the number of repetitions required for each task. To complete a task, the new inspector must perform the specified number of repetitions, while meeting completeness and accuracy benchmarks. For purposes of tracking a new inspector's training progress, the On-the-Job Training Verification Form categorizes each required repetition of a task as a "unit." So, a unit is one repetition of a performance task that meets prescribed conditions and standards for completeness and accuracy.

At the end of each training week, the new inspector must complete the On-The-Job Training Verification Form. It is not the responsibility of training inspectors to generate the forms, but it is their responsibility to help the new inspector in completing them. The new inspector will then send the completed form via email to the Regional Specialist, TTSD Specialist, State Manager, and the OJT Liaison.

The OJT Liaison creates an EXCEL format master training progress spreadsheet for each new inspector. The new inspector will update their completed tasks regularly. While not required, a new inspector may elect to maintain a personal training progress spreadsheet for their own purposes.

The purpose of the master training progress spreadsheet is to ensure that FRA and State Managers are aware of the trainee's current training status. The master training spreadsheet will identify training accomplishments and training needs, enabling FRA and State Managers to make intelligent training schedule decisions, eliminate training redundancies, and determine the best available field trainer to guide the new inspector through tasks that have not been completed. The spreadsheet will help managers to identify and address training obstacles, ineffective administration of the OJT process and marginal trainee performance. The product of an effective training tracking process will be more efficient qualification of trainees, in terms of time and training quality.

Field Training Orientation Guides contain a complete description of the OJT process for each technical discipline and further guidance on completion of the On-the-Job Training Verification Form. The Guides identify roles and responsibilities of persons involved in OJT; guidelines for coordination and administration of OJT; information about the progression and application of OJT; and, OJT performance tasks, conditions, and standards. A thorough understanding and knowledge of the appropriate discipline Field Training Orientation Guide is essential to a successful training experience.

## TECHNICAL TRAINING STANDARDS DIVISION

The TTSD develops, implements, and monitors a formal on-the-job training program for new safety inspectors and inspector trainees. The eight FRA regions are responsible for actual implementation of the on-the-job training program. The primary mission of the TTSD is to manage the Office of Safety's Technical Training Program for approximately 650 Federal and participating State railroad safety inspectors and specialists of the five technical disciplines (hazardous materials, motive power and equipment, operating practices, signal and train control, and track). To accomplish this mission, the team designs, develops, and delivers specialized internal courses, and administers contract training from external sources as necessary. Chapter 16 provides more information about TTSD technical training and procedures for State inspectors to access the training.

# Procedural Guide for New Inspectors, Part A

| Activity | Procedure |
|---|---|
| **HIRING**<br>Creating or adding inspection position | State manager contacts FRA RA, deputy or specialist to discuss State needs, arrange for FRA review of candidates |
| **HIRING**<br>Apprentice or journeyman considerations | State agency understands implications of hiring persons that do not meet journeyman experience requirements outlined in 49 CFR Part 212. |
| **HIRING**<br>State elects to add S&TC or grade crossing inspection position | State manager reviews and follows special procedure for hiring S&TC and grade crossing inspectors |
| **EMPLOYEE ASSESSMENT**<br>State hires new inspector | 1. State manager notifies regional administrator, TTSD chief, FRA State director and regional IT specialist of new employee by name, discipline, and hire date.<br>2. State manager transmits new employee resume to regional administrator and TTSD chief |
| **EMPLOYEE ASSESSMENT**<br>TTSD determines new employee status (journeyman/apprentice), identifies applicable Field Orientation Guide; State manager notified by FRA state director | TTSD chief advises FRA State director and State manager of new inspector training status*:<br><br>1. Journeyman<br>2. Apprentice<br>3. Fails to Qualify as apprentice<br>* If the state disagrees with FRA's qualification assessment, the state can request that FRA conduct an independent field review of the candidate's qualifications. |

# Procedural Guide for New Inspectors, Part B

| Activity | Procedure |
|---|---|
| **ORIENTATION**<br>Journeyman/apprentice inspectors provided general and discipline-specific policy/procedures documents/manuals/materials | State manager secures and provides new inspector with:<br>1. Field Orientation Training Guide<br>2. General Manual<br>3. Discipline Enforcement Manual<br>4. Code of Federal Regulations |
| **EQUIPMENT**<br>Secure FRA-provided equipment for journeyman/apprentice inspectors | Pursuant to executed agreement, State manager may arrange with regional IT specialist for new inspector to receive notebook computer and peripherals for inspection reporting and communications. Inspector receives and signs for equipment. |
| **EQUIPMENT**<br>Secure State-provided equipment for journeyman and apprentice inspectors | State provides inspection tools (gages, measuring devices, etc.) State provides personal protective equipment |
| **TRAINING**<br>On-the-job training | FRA discipline specialist prepares training schedule in consultation with State manager. Travel parameters established. Progress review schedule determined. Source: Applicable Field Orientation Training Guide |
| **TRAINING**<br>Technical Training Standards Division (TTSD) | Advise employee that TTSD designs, develops, and delivers in-house technical training courses in the five rail safety disciplines. |

# Chapter 8

# Rail Safety Inspector Roles

# Rail Safety Inspector Roles

## Introduction

The principal role of the State Rail Safety Participation Program in the national railroad safety effort is to provide an enhanced investigative and surveillance capability by conducting planned routine compliance inspections. FRA encourages further State contributions to the national railroad safety program consistent with overall program needs, individual State capabilities, and the willingness of the States to undertake additional investigative and surveillance activities.

## General Inspector Activities

Regardless of technical discipline, rail safety inspectors perform several basic functions. These include:

- Inspecting railroad operations, structures, and equipment;
- Working on safety assessments, special assignments, and other team activities;
- Preparing technical reports, including those recommending civil penalties;
- Preparing correspondence related to inspection activities;
- Training other rail safety inspectors;
- Participating in public outreach activities; and,
- Investigating complaints of unsafe railroad practices or noncompliance with regulations.

All inspectors periodically inspect railroad lines, and equipment within their state territory to determine compliance with Federal safety regulations. To accomplish this task systematically, inspectors must maintain accurate, up-to-date lists of inspection points, and should advise their regional specialists of any changes in inspection points or safety trends within their territories. Inspectors may also review records of railroads to monitor their compliance with Federal reporting requirements (e.g. accidents and incidents, fatalities, injuries, freight traffic, miles owned and operated, etc.).

### INSPECT WITH RAILROAD OFFICIALS

A railroad official should accompany inspectors during inspections, whenever possible. FRA usually does not encourage inspectors in any inspection discipline to make unaccompanied inspections, unless there is a reason for covert activity such as measuring operating speeds or tracking horn-blowing activity at crossings, but these can usually be conducted off the railroad's right of way. Inspector safety may be at risk during regular railroad operations if the railroad is not aware that an inspector is on the property. The presence of railroad officials with knowledge of local operations can ensure a safer inspector work environment for inspectors and can facilitate immediate action to correct safety deficiencies.

Also, without railroad participation, some inspection activities are limited to superficial observations. That is particularly true of track and signal inspections. Main track inspections typically require hi-rail equipment operated by a railroad employee. Signal inspections require a carrier representative to grant access to signaling equipment and circuits for inspectors to make tests, or inspect relays and signal apparatus inside signal instrument cases and equipment housings.

## INSPECTOR CREDENTIALS

Federal law allows FRA to issue Federal recognition of credentials through a certification card issued to State inspectors. Therefore, it is essential that inspectors always carry proper State and federal credentials when engaged in official duties. Inspectors must offer their credentials for identification when asked. Certified State inspectors should have State-issued credentials to identify their State authority to conduct rail safety inspections. FRA will provide a certification card, signed by the appropriate Regional Administrator, to State inspectors when they become qualified to perform independent inspections. The certification card identifies the inspector as qualified in a specified discipline to perform safety inspections. When riding trains, inspectors should introduce themselves to the train crew members, upon their arrival. Inspector identification should include presentation of credentials or a business card.

## RESPONSE WHEN DENIED ACCESS TO RAILROAD PROPERTY

Railroad representatives may deter inspectors from making inspections or conducting investigations by refusing to permit access, forcibly resisting an inspector's access to railroad property, or interfering with key elements of the inspection. When trying to gain access to railroad property or records, inspectors may answer reasonable questions regarding the scope and purpose of the investigation. However, if railroad employees deny access, inspectors should ask the reason, leave the premises, and report the matter to their regional FRA specialist and their state supervisor. The FRA specialist may then contact their regional administrator for further direction from headquarters management and the Office of Chief Counsel for instructions.

Employees who are denied access to a facility due to safety equipment requirements are to contact their manager and the regional specialist and explain the reasons given by the railroad for refusing to allow the inspector to enter onto railroad property, including the name and title of the individual denying access.

## CROSSING PICKET LINES

State Inspectors whose official duties require them to cross picket lines must use good judgment. Inspector safety is a priority and State personnel are not expected or authorized to take any action that could cause them reasonable fear for their own safety. Under most circumstances, an inspector should display their credentials to those in charge of the picket lines and explain that they are entering the property to conduct Federal and state railroad safety compliance activity. The inspector should try to accomplish his or her official duties without exposure to unreasonable risk. Labor actions can be emotional and inspectors must not exacerbate the situation, express any personal opinions, or engage in any confrontation. If an inspector feels he or she is in danger they should remove themselves from the area. State inspectors should report any problems in the area to their state supervisor and to their regional specialist.

## Regular Inspection Roles

**Hazardous Materials Inspections** address railroads, intermodal facilities, chemical shipper and consignee facilities, freight forwarders/agents, and tank car manufacturing and repair facilities for compliance with hazardous materials regulations. They specifically inspect methods of construction, testing, and manufacture of specification containers, which are packages that meet certain criteria (dimensions, materials, etc.) for transporting particular hazardous materials.

HM inspectors also review and observe the procedures used by those who offer hazardous materials for transportation by rail. These procedures include: classification, packaging, marking, labeling, placarding, loading, and documentation of HM shipments. In addition, HM inspectors review rail carriers' documentation and procedures for loading, unloading, switching, and transporting rail cars of hazardous materials.

**Motive Power & Equipment Inspections** monitor compliance with locomotive safety standards, freight car safety standards, power brake regulations, and blue signal regulations. Blue signal rules establish requirements for display, placement and/or operation of blue flags and rolling stock to protect the safety of workers on, under, or between rolling equipment, safety appliance regulations require the use and maintenance of specific appliances on locomotives and rail cars to protect rail employees, especially those involved in switching operations. Safety appliances include hand holds, automatic couplers, secure ladders, efficient hand brakes, etc.

MP&E inspectors examine the design, construction, condition, maintenance, and operation of locomotives and freight cars (including motive power and related appurtenances). MP&E inspectors also observe brake tests and examine records, including those on board locomotives and in shops. To perform their jobs effectively, MP&E inspectors receive training, as necessary, in the inspection of new types of air brakes, locomotives, and railroad cars.

**Operating Practices Inspections** are performed on-board train inspections to monitor compliance with Federal regulations and railroad operating rules regarding the safe operation of trains. OP inspectors review railroad records on the following activities:

- Accidents/incident reporting,
- Drug and alcohol testing,
- Locomotive engineer certification,
- Operational tests and inspections,
- Hours of Service; and
- Training programs on operating rules.
- Radio procedures.

They share responsibility with MP&E inspectors for monitoring railroad compliance with blue signal regulations. Independently or jointly with carrier officials, OP inspectors periodically conduct field tests to determine employee compliance with railroad operating rules.

**Signal & Train Controls Inspections** include monitoring railroad compliance with all regulations and standards concerning signals and train control systems, devices, and appliances. They also monitor compliance with Federal requirements for the inspection, testing, maintenance, and prompt repair of warning devices at highway-rail grade crossings. (Warning devices at grade crossings comprise flashing lights, bells, gates, and related circuitry.) Compliance with requirements for filing block signal applications is also monitored. S&TC inspectors accomplish these tasks through inspections, tests, and the review of railroad records.

**Track Inspections** monitor compliance with regulations and standards concerning railroad tracks and related appurtenances. During inspections, they determine the condition of roadbed, track structure, track geometry, and track-related devices. Track inspectors also assist railroads in the review of designs for existing and proposed railway track. In addition, they monitor construction, operations, inspections, and repairs to ensure compliance with safety standards. To perform these duties most effectively, track inspectors need to stay informed about current developments in track construction and inspection techniques. They use this knowledge to help evaluate requests from States for Federal aid to upgrade rail lines, and to monitor progress after projects have been approved. Another area of involvement for track inspectors is monitoring compliance with Bridge Worker Safety Standards.

Track inspectors have primary responsibility for monitoring railroads' compliance with Federal Railroad Roadway Worker Protection requirements which allow roadway workers to be protected from train movements and on-track equipment, either through restricted or prohibited train operations, or through adequate warning of approaching trains. As the regulation requires regular training and qualification of employees, OP inspectors also have responsibility for monitoring compliance. Because bridge workers and roadway workers comprise signal and train control employees as well as track employees, S&TC inspectors also participate in monitoring compliance with this regulation.

## Accident Investigation Roles

Although performed infrequently, accident investigation is an important inspector activity. Inspectors are assigned to accident investigations according to need for particular expertise whenever specific causal factors are evident, and when certain kinds of information are critical in writing the investigation report. States that do not participate with FRA in accident investigations may elect to conduct their own investigation. A detailed explanation of railroad accident/incident investigations is included in Chapter 11. The following is a very brief description of the roles inspectors of the five disciplines and the Trespass and Highway-Rail Grade Crossing Division would play during the investigative process. It is by no means a comprehensive list of tasks inspectors perform during an accident investigation.

**Hazardous Material Accident Investigators** participate in investigations involving potential or actual hazardous material spills resulting in evacuations or casualties from a release of a product. Under these circumstances, hazardous material inspectors typically assemble information relative to hazardous materials transported in the train, including damages, shipping papers, product loss, and type of transport vehicles. Additional information typically includes evacuation details, environmental damages, and emergency response.

**Motive Power & Equipment Accident Investigators** get involved in investigations when equipment defects or track/train dynamics are suspected as causal or contributing factors in an accident or incident. They perform equipment inspections and monitor railroad test results to make this determination. Depending on their level of expertise, they may also review locomotive event recorder data to evaluate train handling.

**Operating Practices Accident Investigators** participate in accident/incident investigations when human factors are suspected. They review all pertinent records, operating rules and practices, and evaluate test results (such as drug/alcohol tests) to determine the reason for any human factor-caused accident. Crew resource management, work/rest cycles, and loss of situational awareness are examples of potential accident causal factors that OP inspectors may include in accident investigations. Depending on their level of expertise, they may also review locomotive event recorder data to evaluate train handling.

**Signal & Train Control Accident Investigators** observe railroad tests to determine the condition and operation of signals and train control systems that were in service at the time of the occurrence. Their investigations include an evaluation of the carrier's operating practices and rules, design of the carrier's signal system, stopping distances of trains involved, and adequacy of signal spacing for train speeds involved. If failure of active highway-rail grade crossing signals is suspected, S&TC inspectors must perform this portion of an investigation.

**Track Accident Investigators** participate when track geometry conditions, rail conditions, track component failures, or track/train dynamics are suspected as causal or contributing factors. Track inspectors record and evaluate track geometry measurements, note the condition of rail or track components, and evaluate track/train dynamic forces.

## Complaint Investigation Roles

All inspectors respond to complaints from labor organizations and the public about unsafe railroad practices or alleged noncompliance with Federal regulations and standards. In conducting complaint investigations and reporting their findings, all inspectors, while maintaining confidentiality with the complainants, follow the same general procedures. States should develop coordination procedures with FRA's regional management to ensure that proper resources are allocated to complaints and that both agencies are aware of complaint allegations.

**Hazardous Materials Complaints -** Typical HM complaints include inaccurate or incomplete documentation of hazardous materials being transported by rail, improper positioning of rail cars in trains which transport hazardous materials, and alleged non-compliance with hump-switching requirements for transport vehicles carrying certain hazardous materials.

**Motive Power & Equipment Complaints** - MP&E inspectors investigate complaints of noncompliance with regulations concerning motive power and equipment, safety appliances, and power brakes. Their most typical complaints include:

- Poor working conditions in locomotive cabs (e.g. noise, fumes, uncomfortable temperatures, dirty toilets and windows, and vibrations);
- Brake tests not properly done; and
- Running defective equipment past repair points.

**Operating Practices Complaints** - OP inspectors investigate complaints relating to noncompliance with regulations and railroad operating rules that pertain to train operations. Typical complaints investigated by OP inspectors include:

- Alleged violations of the Hours of Service laws and regulations (e.g. working in excess of the maximum number of hours permitted; inadequate rest between shifts; record-keeping errors or omissions);
- Improperly administered drug/alcohol tests;
- Alleged violations of carrier operating and safety rules;
- Unsafe operating conditions.

**Signal & Train Control Complaints -** S&TC inspectors most frequently investigate complaints of malfunctioning signal and train control systems or malfunctioning warning devices at highway-rail grade crossings.

**Track Complaints -** The most common complaints investigated by track inspectors are broken rails, defective ties, and other defects in track structure.

# Chapter 9

# Effective Program Management Practices

# Effective Program Management Practices

## Introduction

This chapter of the Handbook contains brief discussions of organizations, activities and suggestions for specific actions that managers should consider, whether dealing with a new program or an existing program.

## Program Activities/Issues that Affect Effectiveness

**Association of State Rail Safety Managers -** One of the best ways for managers to enhance their program management skills is to discuss rail safety issues and compare ideas with peers. The Association of State Rail Safety Program Managers (Association) provides an excellent avenue to learn from other managers. States formed the Association in 1998. A principle motivation for establishing a formal organization of State managers was to attain greater uniformity among States in conducting rail regulatory activities and to enable States to speak with a collective voice on rail safety topics and develop unified positions in its dealings with FRA.

The Association consists of rail safety managers representing 31 States that currently maintain an active partnership with FRA to enforce Federal railroad safety regulations. Activities of the Association are guided by an Executive Committee that consists of one member from each of the eight FRA regions. The President and Vice President are elected from the Executive Committee by a vote of the full membership. The members of the Executive Committee, including the President and Vice President, serve 2-year terms. The President appoints Association representatives to FRA's Rail Safety Advisory Committee (RSAC), RSAC Working Groups, the Department of Energy's Transportation External Coordination/Working Group, and to other committees, groups or activities where Association representation is warranted. A copy of the Articles of Association is located in Appendix 5.

The Executive Committee meets once each year to plan the agenda for the annual Association meeting and to consider other Association business. All Association members are expected to attend the annual meeting. The annual meeting is a training session aimed at establishing communication among States and between State and Federal officials, discussing issues of State or Federal concern, and promoting uniformity in the application of Federal rail safety standards. FRA, State and other Federal government speakers address rail safety topics, such as grade crossing safety, enforcement of Federal safety standards, current rail safety issues, prospective rulemaking activities, and rail safety research projects.

The President assists FRA with the conduct of the Executive Committee and annual meetings. The President also presides over the Association business meeting. Travel and subsistence costs for member attendance are covered by the annual State Railroad Safety Technical Training Funding Agreement and are reimbursed in accordance with Federal travel guidelines.

In addition to the annual meeting, State managers have discovered that polling all States or communicating with specific States is an excellent means of sharing knowledge and experience. The Association has proven to be an excellent forum to foster individual or collective State initiatives to benefit rail safety.

**Setting Program Priorities -** State rail safety programs supplement FRA's safety programs so States have a unique opportunity to specifically target State concerns. Therefore, it is imperative that States establish their own goals and priorities. Chapter 12 provides guidance to assist States in conducting State-specific rail safety risk assessments. Because FRA is using a data-driven risk assessment model to allocate its inspection resources, State and FRA inspection priorities will often coincide and States should look for opportunities to work with FRA to target mutual safety concerns. However, FRA draws its data from a national pool and FRA's national and regional priorities may differ from a State's priorities.

In addition to the inspection focus derived from accident data, States may have other rail safety initiatives that address broad State public policy issues. For example, an inordinate number of highway-rail grade crossing collisions may lead a State to hire one or more grade crossing inspectors in order to concentrate on crossing accidents. States may elect to devote a portion of their FRA-certified inspectors' time to non-regulatory issues such as training for short-line employees or crossing safety educational programs.

A State safety manager and the State inspectors are always in the process of balancing the safety interests of the State with FRA programs and initiatives. Like FRA, States also balance their safety interests with the business demands of railroads. Inspectors must use sound field judgment to ensure that their actions do not impede the flow of commerce for reasons other than safety. An imbalance in any of these relationships can cause inefficiency and impair a State's ability to accomplish critical program goals. While State programs have latitude to establish safety priorities, it is important for States and FRA to work as partners and adjust priorities when warranted.

**Communication -** Effective communication is the best means of assuring that State programs are not working at cross purposes with FRA or the railroad industry. Effective communication takes many different forms:

FRA regional managers should schedule meetings with state managers, at least quarterly, Managers, State/FRA inspection coordination, complaint and accident response, and special projects.

Managers should participate in FRA discipline-specific phone conference calls held by the regional specialists. Much of the future planning for special projects and immediate safety concerns are discussed during these calls. State managers should talk to FRA specialists and request to be included in discipline conference calls.

Managers should ensure they and their inspectors receive regular discipline-specific e-mails regarding regulatory interpretations, immediate safety concerns, and other information pertinent to inspector effectiveness. Managers should contact discipline specialists and request to be placed on discipline-specific e-mail distribution lists.

States often receive important information about railroad start-ups, changes in ownership, local operating problems, and even accidents before FRA. Freely sharing such information with FRA is advantageous to rail safety and will encourage the regional office to reciprocate.

**Program Funding** - More than two-thirds of the participating State programs are funded, at least in part, by user fees. The remaining programs utilize some form of general revenue for program support. A summary of State user fees to support rail safety programs are located in Appendix 6. States contemplating a user fee should talk to other States about assessment and collection

methods. These conversations will help States to define a fee assessment process that is easily defined and verifiable.

**Inspector Salaries** - States should be aware of prevailing salaries for professional rail safety inspection services when starting a rail safety program or evaluating the effectiveness of an existing program. State inspector salaries vary across the country and typically are tied to salaries of other regulatory professionals. Unfortunately, railroad wages and FRA salaries are consistently higher than salaries paid to State inspectors, particularly State entry-level salaries. The disparity in State pay and FRA and industry pay is the leading cause of turnover in the ranks of State inspectors. Many State programs find their resources are spent on training inspectors who then apply for FRA jobs due to greater immediate and long-term earning potential. If measured in terms of inspection services received for costs incurred, the cost of continuous nonproductive inspector training, due to turnover precipitated by low salaries, can be more expensive than paying competitive salaries for inspection services.

It is vitally important that states employ experienced, well-trained railroad safety professionals to provide their state with a critical supplemental inspection capability to ensure that railroads strictly adhere to safety regulations. Inspectors must conduct themselves with a consistent and professional attitude in all aspects of their regulatory and investigative interactions with railroads, shippers, or suppliers. It is required that all Federal inspection activities be performed in an impartial and professional manner, without any regard for personal self-interest or bias. Inspectors may not promote or participate in any commercial interest in his or her capacity as a representative of the State or FRA. The work of railroad safety inspectors preserves lives, protects sensitive environments, and prevents substantial property losses.

**State Manager Railroad Knowledge -** A State manager who has not worked in the railroad industry comes to the job with a steeper learning curve that a former railroad employee. While State managers are not expected to be technical experts in the various railroad crafts, they must have an understanding of regulatory precepts, and that requires a working knowledge of railroad operations. That knowledge is best gained on the railroad. Chapter 16 addresses of State manager training.

## Evaluating Inspectors

Proper evaluation of inspectors begins with identifying inspector tasks and standards of performance. Inspectors must know a State manager's expectations in order to perform in an acceptable manner. Therefore, one of the most important program management responsibilities is job definition and a clear delineation of acceptable performance. To aid State managers in establishing inspector tasks and standards, the Handbook includes FRA position descriptions (Appendix 4) for each technical discipline.

**Identify Inspector Skills Relative to Inspector Core Competencies -** FRA has identified knowledge and skills needed for inspectors to accomplish their rail safety mission, and developed an inspector competency model. One purpose of the model is to guide managers in assessing competency and identifying training, coaching and mentoring needs.

The table at Appendix 3 defines core competencies and identifies key characteristics associated with each competency. State managers may want to review inspector performance relative to each key characteristic for potential areas of development that will meet both individual and organizational needs.

**Set Annual Inspection Standards -** State managers must also ensure that inspectors know of all minimum inspection standards they must meet. For example, FRA requires state inspectors to accrue at least 50 inspection days annually in order to qualify for FRA-paid training during the subsequent year. States may elect to have different performance criteria in terms of reports, inspection days or some other annual benchmark.

**Establish Reporting Deadlines -** Inspectors should have uniform deadlines for reporting. Inspectors should upload reports at least once a week. Submission of violations, complaint reports and accident investigation assignments should also have plainly delineated completion terms. State managers are advised to make reporting deadlines for State inspectors consistent with reporting deadlines prescribed for FRA inspectors.

Managers should periodically review the FRA's secure Web sites to monitor inspector reporting frequencies and for reporting errors that need attention. This data source will also inform managers of cumulative annual inspection days, reports, defects and violations. Anomalies should be promptly addressed.

**Talk to FRA Discipline Specialists -** Effective management requires regular conversations between specialists and State managers. FRA discipline specialists are the regional subject matter experts. They are familiar with the work of all FRA and State inspectors within the region and will be able to provide an assessment of a State inspector's work. Managers should not wait until evaluation time to consult with a specialist on State inspector performance.

## Planning Coordination between States and FRA Regional Offices

Federal/state planning coordination is accomplished by participation in quarterly meetings between state and FRA managers, sharing complaints, joint focused inspections, calendar sharing, and inspector-to-inspector communications. FRA addresses emerging issues by webinar and discipline conference calls. Managers need to participate in information briefings or ensure they are fully briefed on discipline-specific initiatives for inspection planning purposes and to become aware of immediate, discipline-specific safety concerns and inspection plans. These activities also provide information on short line safety training workshops, waivers, and any special enforcement activity contemplated or planned within the State.

## FRA State Liaison

FRA employs a State liaison to help States with program matters and to facilitate communication with FRA regions and headquarters. The liaison's role is described within the context of specific activities and topics throughout the Handbook. In addition, the liaison is available for State site visits to provide program instruction and assist States with all aspects of the State Rail Safety Participation Program. That assistance may include help with program staffing decisions or program evaluations. The liaison may also assist States with data collection and analysis. In addition to technical program assistance, the liaison is available to offer written or oral testimony to agency officials or State lawmakers in support of State rail safety programs.

Other duties of the liaison include:

- Assisting the Technical Training Standards Division in scheduling training of State inspectors;
- Facilitating meetings between individual States and FRA regional or headquarters staff and scheduling and facilitating the annual meetings of the Association of State Rail Safety Program Managers;
- Representing FRA's State Rail Safety Participation Program at national meetings of State transportation officials;
- Performing peer comparisons of State rail safety programs;
- Serving as the States' primary source of FRA data and information regarding the national rail safety program;
- Representing State viewpoints to the FRA, and serving as an advocate for equal treatment of State programs with regard to training, information sharing, and inspection activities, and;
- Maintaining the State Manager's Handbook with input from the States.

Liaison contact information can be found on FRA's Web site.

# Chapter 10

# State Inspector Standards of Professionalism

# State Inspector Standards of Professionalism

## Introduction

Certified State inspectors acting under the authority of the Federal Railroad Administration to conduct railroad safety inspections are required to adhere to standards of professional conduct. Similar standards of professional conduct apply to Federal railroad safety inspectors. These standards cover the following areas:

## Inspection Quality

Inspectors will adhere to the policies and procedures of the relevant discipline compliance manuals to ensure the uniform application and enforcement of Federal railroad safety laws and regulations. FRA specialists will conduct a formal review of a State inspector's work quality at the request of the State manager or the regional administrator. FRA specialists may also conduct a formal review of a State inspector's work quality on their own initiative. The State manager and the regional administrator will be apprised of any formal review of a State inspector's work prior to the review. Following the review, the specialist will advise the State manager of the result of the quality performance assessment. If an inspector's quality of performance is unsatisfactory, the specialist will document all facts relating to the lack of proficiency. A written report will be provided to the regional administrator and to the State manager. The report shall:

1. Specify job duties that the inspector has not performed at the proficiency level required by the appropriate FRA Field Training Manual and Orientation Guide;

2. Contain a recommendation for interventions to raise the inspector to a proficient performance level; and

3. Contain a recommendation regarding the inspector's certification status during retraining. Options include maintaining certification or suspension of certification, in whole or in part, during retraining.

The regional administrator will discuss the specialist's report with the State manager and reach an agreement on a proper retraining regimen to remedy unsatisfactory inspection quality. Retraining will be completed when the inspector demonstrates performance of designated job duties at the proficiency level required by the appropriate FRA Field Training Manual and Orientation Guide.

## Inspection Quantity

Inspectors will accumulate at least 50 inspection days each calendar year. An "inspection day" is defined as any day in which at least one Form FRA 6180.96 is completed. Certified State inspectors must record 50 inspection days per calendar year to qualify for reimbursement of travel and subsistence expenses associated with technical training during the subsequent year. Inspectors that do not generate 50 inspection days during the year will be required to attend training the following year; however, States will have to assume all costs for training assignments.

Inspectors hired or certified during the year are not subject to the policy if they could not reasonably be expected to reach 50 inspection days. States may seek a waiver from the requirement for personal circumstances and other valid reasons. State inspectors who supervise other State inspectors will be expected to record a minimum of 3 0 inspection days each year.

**Conflicts of Interest**

Inspectors must conduct themselves with a consistent and professional attitude in all aspects of their regulatory and investigative interactions with railroads, shippers, or suppliers. It is required that all Federal inspection activities be performed in an impartial and professional manner, without any regard for personal self-interest or bias. Inspectors may not promote or participate in any commercial interest in his or her capacity as a representative of the State or FRA.

**Training Attendance**

Inspectors must attend FRA-scheduled training classes to maintain technical proficiency. Inspectors may be excused from a class and rescheduled for a different class for legitimate personal or work-related reasons. Advance approval to reschedule training must be secured. Missing two training classes without receiving proper advance approval within a 3-year period will ordinarily result in a revocation of an inspector's certification, in accordance with FRA's training policy.

**Personal Safety**

Inspectors will adhere to all provisions of the General Manual pertaining to personal safety. These provisions concern personal protective equipment requirements, safe work practices and procedures, and prohibited actions. When hired, State inspectors will be provided with a copy of FRA's General Manual and become familiar with personal safety requirements for rail safety inspectors. The State manager and the regional specialist will be advised of any reports of inspectors failing to adhere to provisions of the General Manual pertaining to personal safety. If allegations are determined to be true, the inspector will receive a written notice signed by the Regional Administrator and the State manager. The notice will identify the personal safety requirement violated and advise the inspector that any subsequent, willful violation of personal safety requirements will result in permanent revocation of the inspector's certification. In all cases, inspectors will be allowed to explain their actions. Relatively minor infractions will not ordinarily result in suspension, except for repeated offenses and ignoring previous warnings.

**Reporting Requirements**

1. Inspection reports should be uploaded at least weekly when an inspection was performed.

2. Violation reports should be submitted to the discipline specialist within 30 days of recording the violation on a Form 96 report.

3. Assigned investigative reports should be submitted within specified time frames.

4. Travel vouchers for FRA-paid training classes should be mailed within 3 business days following the conclusion of the class.

5. Inspector compliance with reporting requirements will be assessed at the request of the State manager or the regional administrator. FRA specialists may also conduct a formal review of a State inspector's compliance with reporting requirements on their own initiative. Unsatisfactory performance could result in suspension of certification and retraining.

**Technical Direction and Coordination**

FRA supervisory specialists are regional subject matter experts for each discipline. Inspectors will comply with all technical directives issued by the discipline specialists regarding the conduct of inspection activities.

**Media Relations and Rail Accidents**

Inspectors are cautioned not to respond to requests by the news media for information regarding FRA activities. Such requests should be referred to the FRA's Office of Public Affairs or the State manager. Inspectors may, at an accident scene, State:

1. The accident is being investigated by inspectors of FRA and the State;

2. The cause has not yet been determined, and;

3. When the accident investigation is complete, a report of the investigation will be made available upon request to FRA.

Under no circumstances should inspectors offer opinions or speculate about the probable cause of an accident or incident. The State manager and the regional specialist will be advised of any reports of an inspector failing to adhere to media relations requirements. If allegations are determined to be true, the inspector will receive a written notice signed by the regional administrator and the State manager. The notice will identify the media relations requirements violated and advise the inspector that any subsequent, willful violation of the media relations requirement will result in a 30-day suspension of the inspector's certification.

**Prohibited Activities**

1. The inspector must never become involved in an advisory capacity to any person during accident emergency response and recovery operations, except to answer normal questions pertaining to FRA regulations;

2. The inspector must never operate any piece of railroad equipment. However, an inspector may request that the railroad carrier move a piece of equipment for investigation. (An inspector may act directly only in extreme circumstances when necessary to intervene to prevent an imminent accident or injury.);

3. Inspectors must not use any amount of alcohol or drugs, or possess alcohol or drugs, while on railroad property, except for medications prescribed by one's physician or available over-the-counter. Medications may be used only if they will not impair an inspector's ability to work safely;

4. Inspectors may not have unauthorized contact with railroad personnel regarding planned inspection or investigation activities;
Inspectors may not make an unauthorized release of information about individual liability actions;

5. Inspectors may not engage in improper communication with attorneys representing railroads, railroad employees, railroad shippers, or advocacy groups. Improper communication is defined as providing documents or sensitive information outside of normal administrative channels. Requests from attorneys should ordinarily be referred to the State manager, the regional

administrator, or the FRA Office of Chief Counsel.

The State manager and the regional specialist will be advised of any reports of an inspector engaging in prohibited activities. The inspector will be instructed by the State manager to refrain from all inspection activities pending an investigation of the prohibited activities allegation. If allegations are determined to be true, the inspector will receive a written notice signed by the regional administrator and the State manager. Serious violations will result in permanent revocation of the inspector's certification. For less serious violations, the notice will identify the prohibited activity and advise the inspector that any subsequent, willful prohibited activity could result in permanent revocation of the inspector's certification. In all cases, inspectors will be allowed to explain their actions. Relatively minor infractions will not ordinarily result in suspension, except for repeated offenses or failure to heed previous warnings.

**FRA Work Performance Reviews**

FRA specialists will conduct a formal review of a State inspector's performance at the request of the State manager or the regional administrator. FRA specialists may also conduct formal reviews of a State inspector's performance on their own initiative. Any performance review will be signed by the specialist and by the regional administrator or his representative; a copy will be provided to the State manager as well as the State inspector.

**Disciplinary Action Process**

An inspector who fails to adhere to the standards of professional conduct can be suspended from conducting Federal inspections. A suspension is defined as the temporary removal of FRA inspection authority, including the authority to investigate accidents and incidents and to represent FRA at railroad or community events. Suspensions shall be for cause, by the joint action of the State manager and the regional administrator.

Following a suspension, an inspector will receive instruction and counseling (retraining) which, if successful, will ordinarily lead to a lifting of the suspension. The duration of retraining could be as short as 1 week or as long as 6 months, depending on the training needs of the inspector. Retraining will be completed when the inspector demonstrates performance of designated job duties at the proficiency level required by the appropriate FRA Field Training Manual and Orientation Guide. The regional specialist, in consultation with the State manager and the regional Administrator, will a make a determination when retraining has been successfully completed. When retraining is not successful, or when the State manager and regional administrator agree that retraining is not appropriate, the inspector will be decertified. Decertification is the permanent removal of FRA inspection authority, for cause. The State inspector will be notified, in writing, of any action to suspend certification or revoke certification. Written notification to the State inspector of suspension or revocation of certification will be signed by the regional administrator and the State manager.

All cases of suspension or decertification will receive an automatic review by the Professional Standards Review Committee. The Committee consists of two State managers as designated by the Association of State Rail Safety Program Managers' Executive Committee; one FRA manager, one FRA training manager (preferably possessing the discipline qualifications under review) and one FRA attorney designated by the Assistant Chief Counsel for Safety. The Committee will select a Chairperson who will be authorized to issue the findings of the Committee.

**Disciplinary Action Review Process**

All cases of suspension or decertification will receive an automatic review by two State managers as designated by the Association of State Rail Safety Managers' Executive Committee; one FRA manager, one FRA training manager (preferably possessing the discipline qualifications under review) and one FRA attorney designated by the Assistant Chief Counsel for Safety. A Chairperson will be authorized to issue the findings.

Suspension or decertification will remain in effect pending review, but no decertification is final until a determination is issued. Any suspension or decertification will be reviewed to ensure that standards were correctly and fairly applied. The determination will be accomplished by review of pertinent documents.

A meeting will be scheduled as soon as practicable following the action to suspend or decertify a State inspector. An inspector that receives written notice of suspension or decertification may submit material in writing for review. To be considered, written materials provided by the inspector subject to suspension or decertification must be received by the inspector's State manager within seven days from the date of the suspension or decertification letter.

# Chapter 11

# Railroad Accident/Incident Investigations

# Railroad Accident/Incident Investigations

## Introduction

A railroad accident that is reportable by law is a train collision/derailment meeting or exceeding a specified monetary threshold of damage to rail equipment. "Incidents" comprise train collisions/ derailments not meeting this threshold and other events which result in casualties or evacuations (e.g. HM spills, gasoline explosions).

The purpose of an accident investigation is to promote safety in every area of railroad operations and reduce railroad-related accidents and incidents. To accomplish this objective, the FRA investigator must determine the root cause of the accident/incident. Understanding the root cause allows the railroad and/or FRA to implement proper remedial action to prevent similar future occurrences. This remedial action could range from repairing defective track to developing a new regulation or safety standard. FRA encourages State inspectors to participate with FRA in railroad accident/incident investigations. FRA will pay tuition and travel costs associated with State inspector accident/incident investigation training.

## Accident Investigation Criteria

FRA generally investigates accidents and incidents meeting the following criteria:

- Any collision, derailment, or passenger train incident resulting in at least one fatality or serious injury to railroad passengers or crew members;
- Any railroad-related accident resulting in death to an on-duty railroad employee, including an employee of a contractor to a railroad, regardless of craft;
- Any highway-rail grade crossing accident resulting in:
  - Death to one or more persons in a commercial vehicle or school bus;
  - Serious injury to several persons transported by such vehicles;
  - Death to three or more persons in a private highway vehicle; or
  - No fatality, but involving a malfunction or failure of an active warning device which allegedly contributed to or caused the accident;
- All Amtrak accidents/incidents;
- Any train accident/incident with damages exceeding $1 million;
- Any non-casualty train accident resulting in derailment of a locomotive and/or large number of cars, and extensive property damage;
- Any train accident/incident resulting in fire, explosion, or release of classified hazardous materials, especially if it exposed a community to these hazards or the threat thereof;
- Any nuclear train accident/incident;
- Any train incident involving run-away equipment, with or without locomotives;
- Any collision involving maintenance-of-way or hi-rail equipment;
- Any accident caused by failure of a locomotive or any part of a locomotive, or a person coming in contact with an electrically energized part that resulted in serious injury or death of one or more persons. (See 49 CFR Part 229.17 and Part 229.5(1)); or
- Any other train accident/incident likely to arouse considerable public interest.

## Types of Accident Investigations

Accidents assigned for investigation fall into one of the following categories:

- Rail Equipment (collisions and derailments)
- Highway-Rail Grade Crossing
- Fatalities (Employee or Contractor)

## Accident Assignments

FRA headquarters issues accident assignments for more serious events, including all fatalities to railroad employees or contractors. An FRA inspector is required to be the Investigator in Charge (IIC) of any headquarters accident investigation assignment. The FRA region decides other inspectors who will be assigned to the investigation. State inspectors may be assigned to an accident investigation team if the State has signed an accident investigation agreement. Regions may investigate rail equipment and highway-rail grade crossing accidents that are not assigned by FRA headquarters. These are commonly referred to as regional assigned accidents. FRA regions may assign a State inspector to serve as the IIC of a region-assigned accident investigation. State inspectors that participate with FRA in accident investigation must adhere to FRA reporting and data entry requirements.

## Accident Reporting

States are encouraged to have rail accident reporting rules or regulations. States should also develop mutual accident information exchange procedures with FRA regions to ensure adequate Federal/State accident response. The details of accident information exchange procedures should be clearly understood by FRA and states.

While States are preempted from requiring railroads to file unique written reports following accidents, States may require railroads to file copies of the following monthly railroad accident reports filed with FRA:

- Rail Equipment Accident/Incident Report, FRA Form 6180.54
- Highway-Rail Grade Crossing Accident/Incident Report, FRA Form 6180.57
- Railroad Injury and Illness Summary, FRA Form 6180.55

FRA has an immediate railroad reporting requirement for railroads; they are required to provide telephonic notification of certain accidents or incidents to the National Response Center as per 49 CFR Part 225.9. Courts have ruled that States are not preempted from requiring railroads to provide immediate telephonic notification of accidents (NARUC v. Coleman 542 F. 2d at 15).

# Chapter 12

# Railroad Safety Inspection Priorities

# Using Data to Support Inspections

## Introduction

FRA data resources include a public site for historical accident information and a secure site for inspection data. In order to effectively deploy inspection resources, managers and inspectors need to have a thorough understanding of these FRA websites. In addition to data found on these FRA websites, managers and inspectors need to have to be able to access discipline defect codes and understand the relationship between defect codes and accident cause codes.

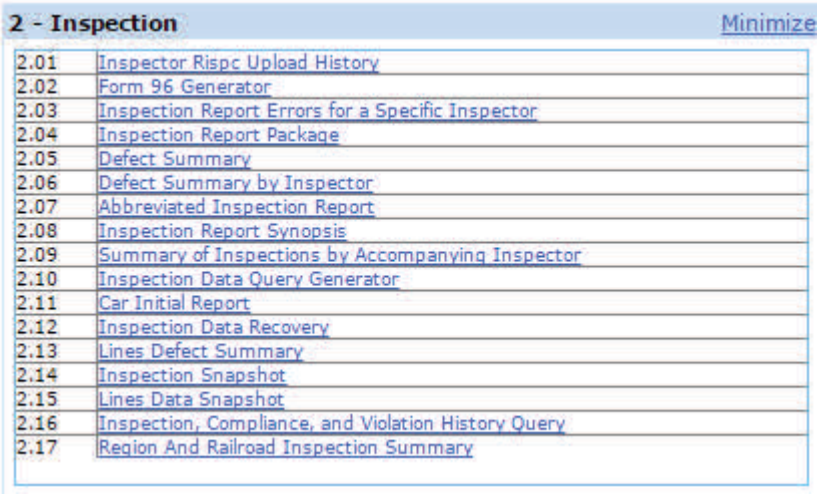
The secure site is the Railroad Safety Information System (RSIS), a critical data management system that supports railroad safety. The RSIS comprises a series of databases used to house and manage various railroad inventory and safety related data. The site includes inspector and railroad reporting processes and subsequent data validation, processing, and dissemination.

The public site is the Railroad Accident Incident Reporting System (RAIRS). This website contains railroad operational data, such as total train miles, passenger miles, and employee hours. It also has historical databases on railroad casualties, reportable railroad accidents, and highway-rail grade crossing accidents/incidents. Mapping queries are useful to focus attention on high-frequency railroad accident and casualty locations.

State managers are encouraged to become familiar with all FRA data resources. The secure site is a security controlled location requiring password access. Managers should contact FRA for information needed to become a secure site user, and explore both data resources to become familiar with information that is essential to an effective state railroad safety program.

## Evaluating Inspector Output (Quantity)

Managers need to monitor inspection work generated by their inspectors. The secure site (RSIS) is a repository for inspector reporting processes. Individual inspector activity can be viewed by the following secure site queries:



| 2 - Inspection | Minimize |
|---|---|
| 2.01 | Inspector Rispc Upload History |
| 2.02 | Form 96 Generator |
| 2.03 | Inspection Report Errors for a Specific Inspector |
| 2.04 | Inspection Report Package |
| 2.05 | Defect Summary |
| 2.06 | Defect Summary by Inspector |
| 2.07 | Abbreviated Inspection Report |
| 2.08 | Inspection Report Synopsis |
| 2.09 | Summary of Inspections by Accompanying Inspector |
| 2.10 | Inspection Data Query Generator |
| 2.11 | Car Initial Report |
| 2.12 | Inspection Data Recovery |
| 2.13 | Lines Defect Summary |
| 2.14 | Inspection Snapshot |
| 2.15 | Lines Data Snapshot |
| 2.16 | Inspection, Compliance, and Violation History Query |
| 2.17 | Region And Railroad Inspection Summary |

This query section enables managers to see: how often inspectors upload inspection reports, copies of actual reports, outstanding report errors, and defect summaries.

**State Managers Report**

Another management tool on the secure site main page is the State Managers' Report, Query 5.03. This report provides an overview of inspector output, by state. The following example has been manipulated on a spreadsheet to omit query data related to accompanying inspections.

| Type Inspector | | | Own Days | Own Reports | Own Defects | Own Violation Defects | Own Units | Own Sub-Units |
|---|---|---|---|---|---|---|---|---|
| Alabama | MPE | Inspector 1 | 8 | 10 | 143 | 0 | 1,649 | 7 |
| | Track | Inspector 2 | 10 | 14 | 305 | 7 | 473 | 57 |
| | State Total | | 18 | 24 | 448 | 7 | 2,122 | 64 |

Managers should regularly monitor this report to affirm that inspectors are generating work that meets expectations. The report also provides information on inspector progress towards meeting the annual minimum inspection days' standard.

**Dashboard**

FRA has deployed a Dashboard tool on its secure Web site that will provide state managers and their inspection workforce multiple views of the current and historical enforcement efforts. Inspection data from the field are compiled in near-real-time fashion and a nightly process creates the data stores to display detail and aggregated data, graphically (bar graphs and gauges).

The Dashboard also serves as a central launch pad for several complex query and report programs that have been integrated into the output displays and allows users the ability to "drill down" when additional detail is required. It is a useful decision support tool to manage limited inspection resources and scheduling enforcement activities such as focused inspections and audits. The Dashboard helps state managers monitor inspection activities to ensure that enforcement and compliance policy is applied uniformly.

**Determining Inspection Targets**

Accident cause data can be identified by technical area (Track, Roadbed and Structures, Signal and Communication, Mechanical and Electrical Failures, Train Operation – Human Factors). These broad accident cause categories correlate to four of the five inspector technical disciplines: Track, Signal & Train Control, Motive Power & Equipment, and Operating Practices. The fifth technical inspection discipline, hazardous materials, is not a contributing cause of railroad accidents.

The public site and other data resources are essential to determine where accidents are occurring and what is causing accidents. The focused inspection process first correlates railroad accident cause codes with discipline defect codes. This exercise answers the following questions:

1. What are the primary accident cause codes assigned to railroad accidents in the state?
2. What railroads and geographic locations have the highest incidence of accidents that are attributed to primary accident causes?
3. What are the discipline defect codes that address the primary accident causes?

Managers and inspectors need to become intimately familiar with accident histories of railroads within their state and within their territories. The RAIRS website address is: http://safetydata.fra.dot.gov/officeofsafety/default.aspx. On the website, Query 3.10, Accident Causes, enables inspectors and managers to generate data on railroad accidents by cause category, specific cause, railroad, and location. The data can be generated for a defined term. Defect codes are available to inspectors within the RISPC program.

Smaller states may need to view data for several years, while larger states that experience a greater number of railroad accidents may be able to generate detectable accident trends over a shorter time period. It is important to differentiate between main track and yard track accidents. Main track events typically occur at higher speeds and result in greater monetary and environmental damage. Yard accidents occur more frequently, but are typically low-impact and result in less damage. In order to effectively use the information, it is often necessary to export or copy the data into a spreadsheet to create a data array that succinctly summarizes the information.

**The Focused Inspection Process (FIP)**

A State inspector's duties regarding the Focused Inspection Process (FIP) are essential to meet accident reduction goals and are necessary for the inspector to meet their own professional and performance goals. State inspectors should develop FIP charts to document serious noncompliance or safety concerns, and use the charts to prioritize inspections.

**Overview of the FIP**

- The inspector should chart the following items for their inspection territory:

    1. Accidents and Injuries (OP)
    2. All state inspection activity within the region (Dashboard or RISPC reports are acceptable)

- This data should be reviewed for obvious trends, noncompliance, or safety issues.
- The inspector should use his/her charting analysis to prioritize state inspector time and resources.
- Inspectors will follow-up on all safety issues until they are resolved.

**FRA Office of Safety of Railroad Safety Website (Public Site)** - Inspectors should create a database for the Focused Inspection Process by charting the accident/incident data for their inspection territory using the information found on the FRA Public Site: (http://safetydata.fra.dot.gov/officeofsafety/).

## Gathering Accident Data

**2.03 Report –** The Train Accident by Railroad Groups (2.03 Report) is the starting point for data analysis and will guide the inspector toward areas of concern. The report presents relevant accident information, by railroad, in a clear and understandable format. Raw accident numbers are visible, as well as percentage increases or decreases. After a railroad is identified as an "area of concern," the process moves to the "2.09 Report" for a more in-depth analysis.

**Example, 2.03 Report** (Note: There is no intent that the reader be able to read the table shown below. The table is merely an example of what inspectors receive when they perform the query specified in this step.)

**2.03 - Train Accidents by Railroad Groups**

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***ACCIDENTS IN DESCENDING FREQUENCY BY RAILROAD***

Selections: Railroad Group - ALL RAILROADS SELECTED
State - TEXAS County - All Counties
All Regions
All Causes / All Types of Accidents / All Track Types
January through December, 2015

| | Total | | Total Year Counts | | | YTD Counts Jan - Dec | | % Change Over Time | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Accs | Pct of Total | 2012 | 2013 | 2014 | 2014 | 2015 | 2012 to 2014 | 2013 to 2014 | To Dec 2014 2015 |
| UP Union Pacific RR Co. [UP ] | 480 | 51.3 | 124 | 107 | 109 | 109 | 140 | -12.1 | 1.9 | 28.4 |
| BNSF BNSF Rwy Co. [BNSF] | 258 | 27.6 | 73 | 62 | 58 | 58 | 65 | -20.5 | -6.5 | 12.1 |
| KCS Kansas City Southern Rwy Co. [KCS ] | 41 | 4.4 | 8 | 11 | 8 | 8 | 14 | | -27.3 | 75.0 |
| PTRA Port Term. RR Association [PTRA] | 24 | 2.6 | 6 | 6 | 4 | 4 | 8 | -33.3 | -33.3 | 100.0 |
| XTGS Trans-Global Solutions, Inc [XTGS] | 14 | 1.5 | 3 | 7 | 1 | 1 | 3 | -66.7 | -85.7 | 200.0 |
| FWWR Fort Worth & Western RR [FWWR] | 13 | 1.4 | 3 | 2 | 2 | 2 | 6 | -33.3 | | 200.0 |
| TCT Texas City Term. Rwy Co. [TCT ] | 9 | 1.0 | 1 | 3 | 2 | 2 | 3 | 100.0 | -33.3 | 50.0 |
| TXPF Texas Pacifico Transportation Limited [TXPF] | 9 | 1.0 | | 2 | 4 | 4 | 3 | | 100.0 | -25.0 |
| TNMR Texas & New Mexico RR Co. [TNMR] | 7 | 0.7 | 2 | 2 | 3 | 3 | | 50.0 | 50.0 | |
| AWRR Austin Western RR [AWRR] | 6 | 0.6 | 3 | 2 | | | 1 | | | |
| CMTY Capital Metropolitan Transportation Auth. [C | 6 | 0.6 | 4 | 2 | | | | | | |
| TIBR Timberrock RR Co., Inc. [TIBR] | 6 | 0.6 | 2 | 3 | | | 1 | | | |
| CCPN Corpus Christi Term. RR Inc. [CCPN] | 5 | 0.5 | 2 | 3 | | | | | | |
| CMC CMC RR Inc. [CMC ] | 5 | 0.5 | 1 | 2 | 2 | 2 | | 100.0 | | |
| DGNO Dallas, Garland & Northeastern RR [DGNO] | 4 | 0.4 | | 2 | 1 | 1 | 1 | | -50.0 | |
| GCSR Gulf, Colorado San Saba Rwy Corp. [GCSR] | 4 | 0.4 | 4 | | | | | | | |
| GVSR Galveston RR, L.P. [GVSR] | 4 | 0.4 | 2 | 1 | 1 | 1 | | -50.0 | | |
| BLR Blacklands RR, The [BLR ] | 3 | 0.3 | 1 | 1 | | | 1 | | | |
| PNR Panhandle Northern RR Co. [PNR ] | 3 | 0.3 | 1 | | | | 2 | | | |
| RVSC Rio Valley Switching Co. [RVSC] | 3 | 0.3 | | 1 | 2 | 2 | | | 100.0 | |
| TXNW Texas Northwestern Rwy Co. [TXNW] | 3 | 0.3 | 1 | 1 | 1 | 1 | | | | |
| TXR Texas Rock Crusher Rwy Co. [TXR ] | 3 | 0.3 | | | | | 3 | | | |
| WTLC West Texas and Lubbock Rwy Co. [WTLC] | 3 | 0.3 | | 2 | | | 1 | | | |

**2.09 Report –** The Train Accidents and Rates Report (2.09 Report) allows users to retrieve detailed accident data on all railroads or a particular railroad. This report provides an overall picture of the accident causes within a state, or on the selected railroad. From this report, inspectors will be able to determine the location (county, yard/main track) and specific causes of accidents that have occurred. This data can be correlated to technical inspection disciplines and assigned inspector territories.

## Internal Railroad Records

Inspectors should also inspect railroad records to identify inspection targets. One very useful report is the 6180.97 report, "Initial Rail Equipment Accident/Incident". Railroads are required to complete this report for all instances of a wheel hitting the ground, regardless of damage amounts. These reports are kept at division/service unit headquarters and inspectors can view and copy them. In most instances, for every reportable accident there are several non-reportable accidents with the same cause. The "97" reports will allow inspectors to be proactive in preventing major accidents by focusing inspections on safety deficiencies that are contributing causal factors. Railroad inspection, repair, and maintenance records can also indicate safety performance trends that need inspection scrutiny.

**Example 2.09 Report** (Note: There is no intent that the reader be able to read the table shown below. The table is merely an example of what inspectors receive when they perform the query specified in this step.)

2.09 - Train Accidents and Rates

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*ACCIDENTS IN DESCENDING FREQUENCY BY CAUSE ( By CALENDAR YEAR )*
****IMPORTANT: Rates calculated are National Level - they do not display for Region or State Geography****
*Accident/incident rates are calculated by multiplying the number of events times 1,000,000 divided by total train miles for the parameters chosen*

Selections: Railroad - All Railroads
State - TEXAS County - All Counties
All Regions
All Causes / All Types of Accidents
All Track Types / All Track Classes
CALENDAR YEAR - 2015
Reporting Level - ALL

Last Database Reported Month/Year=1/2016

| Cause | Total | | Total CY Counts | | | Total Year Rates | | | Month To Month Counts Jan - Dec | | % Change Over Time | | | YTD Rates To Dec | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Cases | Pct of Total | CY 2012 | CY 2013 | CY 2014 | 2012 | 2013 | 2014 | CY 2014 | CY 2015 | CY 2012 to CY 2014 | CY 2013 to CY 2014 | Month To Month % Change CY 2014 to CY 2015 | 2014 | 2015 |
| -----GRAND TOTAL..... | 864 | 100.0 | 229 | 201 | 191 | | | | 191 | 243 | -16.6 | -5.0 | 27.2 | | |
| T110 Wide gage(defective/missing crossties) | 62 | 7.2 | 15 | 13 | 18 | | | | 18 | 16 | 20.0 | 38.5 | -11.1 | | |
| H307 Shoving movement, failure to control | 36 | 4.2 | 8 | 10 | 9 | | | | 9 | 9 | 12.5 | -10.0 | 0.0 | | |
| H306 Shoving movement, absence of man | 34 | 3.9 | 6 | 9 | 13 | | | | 13 | 6 | 116.7 | 44.4 | -53.8 | | |
| H607 Failure to comply with restricted speed | 31 | 3.6 | 9 | 10 | 2 | | | | 2 | 10 | -77.8 | -80.0 | 400.0 | | |
| H318 Kicking or dropping cars, inadequate pre | 23 | 2.7 | 3 | 8 | 7 | | | | 7 | 5 | 133.3 | -12.5 | -28.6 | | |
| H702 Switch improperly lined | 21 | 2.4 | 5 | 3 | 5 | | | | 5 | 8 | 0.0 | 66.7 | 60.0 | | |
| T314 Switch point worn or broken | 20 | 2.3 | 5 | 5 | 6 | | | | 6 | 4 | 20.0 | 20.0 | -33.3 | | |
| T111 Wide gage(spikes/other rail fasteners) | 18 | 2.1 | 5 | 6 | 4 | | | | 4 | 3 | -20.0 | -33.3 | -25.0 | | |
| M404 Obj/equip on/fouling track, other | 17 | 2.0 | 5 | 1 | 3 | | | | 3 | 8 | -40.0 | 200.0 | 166.7 | | |
| H018 Fail to secure car hnd brk -rr emp | 16 | 1.9 | 7 | 3 | 3 | | | | 3 | 3 | -57.1 | 0.0 | 0.0 | | |
| H997 Motor car or other on-track equipment ru | 15 | 1.7 | 1 | 5 | 5 | | | | 5 | 4 | 400.0 | 0.0 | -20.0 | | |
| M507 Investigation complete, cause could not | 15 | 1.7 | 3 | 5 | 3 | | | | 3 | 4 | 0.0 | -40.0 | 33.3 | | |
| T207 Detail fracture - shelling/head check | 15 | 1.7 | 6 | . | 3 | | | | 3 | 6 | -50.0 | . | 100.0 | | |
| T102 Cross level track irreg.(not at joints) | 14 | 1.6 | 4 | 4 | 1 | | | | 1 | 5 | -75.0 | -75.0 | 400.0 | | |
| T108 Trk alignmnt irreg-not buckled/sunkink | 14 | 1.6 | 6 | 2 | 1 | | | | 1 | 5 | -83.3 | -50.0 | 400.0 | | |
| T202 Broken base of rail | 13 | 1.5 | 4 | 3 | 3 | | | | 3 | 3 | -25.0 | 0.0 | 0.0 | | |
| H704 Switch previously run through | 11 | 1.3 | 3 | 2 | 4 | | | | 4 | 2 | 33.3 | 100.0 | -50.0 | | |
| T221 Vertical split head | 11 | 1.3 | 3 | 3 | 3 | | | | 3 | 2 | 0.0 | 0.0 | -33.3 | | |
| M105 Extreme wind velocity | 10 | 1.2 | 1 | 6 | 1 | | | | 1 | 2 | 0.0 | -83.3 | 100.0 | | |
| M411 Passed couplers (automated classificatio | 10 | 1.2 | 2 | 3 | 2 | | | | 2 | 3 | 0.0 | -33.3 | 50.0 | | |
| T113 Wide gage (due to worn rails) | 10 | 1.2 | 2 | 1 | 3 | | | | 3 | 4 | 50.0 | 200.0 | 33.3 | | |

This report provides specific accident causes for a three year period. The data that can be related to specific inspection defect codes. Inspection defect codes for all disciplines can be found in the RISPC program.

## Evaluating Casualty Data

All inspectors should be familiar with railroad injuries occurring within their inspection territories. Injury data by job type may indicate unsafe conditions that can be addressed by enforcing discipline safety standards. For example, a yard location that reports a high incidence of personal injuries for maintenance of equipment and stores employees, or train and engine service employees may be related to safety appliance defects that impede safe mounting and dismounting from equipment, or unsafe walkways.

**4.09 Report** – Worker Safety Report data identifies injuries experienced by job type for specific geographic locations. The report presents summary information that can be helpful during injury data analysis.

## Evaluating Inspector Work (Quality)

Another effective program management tool is the Dashboard “Inspections” or “Cube” program, an online analytical processing data mining tool. Using the Inspections program, state managers can view historical inspection data for an inspector by railroad, location, frequency and recorded defects and violations. This information can then be correlated with accident cause information. This program allows state managers to ascertain whether specific defects inspectors are recording effectively mitigate accident causes. Managers can redirect inspectors who are not recording safety defects that directly address the cause of accidents.

The Dashboard is also an effective performance management tool. It maintains over 15 different metrics (e.g., Inspection Days, Defect Ratios, Violations) at the inspector, discipline, and region level. Managers can select “State” inspectors and see average performance data for state inspectors nationwide, and compare work performed by state and FRA inspectors. Another effective program management measurement is the defect ratio. If an inspector has an extremely low defect ratio, either the inspector is not recording defects or inspecting in the wrong locations. Violations per defect written is a useful calculation to identify inspectors who are reluctant to write violations. The number of units per inspection, although affected by travel time and train traffic, will assist managers to identify inspectors that aren’t working effectively or efficiently.

# Chapter 13

# Enforcement Tools

# Enforcement Tools

## Introduction

To encourage compliance with Federal safety statutes and regulations, FRA may use a variety of enforcement tools, ranging from spoken warnings to more stringent measures such as disqualification of individuals, extraordinary civil penalties, or emergency orders. This chapter describes and compares the various enforcement tools, criteria for using them, severity to the railroad or individual, and complexity of procedures (e.g. those involving a court proceeding versus strictly an interaction between the inspector and alleged violator).

## Regional Enforcement Actions

Enforcement tools that inspectors and their regional administrators may use independently of the Office of Chief Counsel (RCC) are defect notices, spoken warnings, special notices for repairs (unless appealed), and regional warning letters. Descriptions follow.

**Defect Notice -** Even when deciding not to initiate a punitive action, inspectors must complete defect notices. Copies of defect notices and the accompanying inspection reports are provided to the offending railroads and FRA headquarters for data entry and analysis. At this level, no assistance or guidance from FRA is necessary.

**Special Notice for Repairs (MP&E and Track) -** Only two disciplines, MP&E and track, use this tool, which essentially orders railroads to remove from service unsafe freight cars and locomotives until deficiencies are corrected, or to reduce the speed of railroad operations on unsafe track segments until repairs are made. Inspectors and regional administrators can implement this tool and do not require clearance or assistance from FRA headquarters unless the notices are appealed by the affected railroads. A violation is typically warranted when conditions justify a special notice for repairs.

**Procedures for Notices Concerning Freight Cars and Locomotives -** MP&E inspectors may issue special notices for repairs when they determine that a freight car does not meet the Freight Car Safety Standards (49 CFR Part 215), or that a locomotive is not safe to operate (according to noncompliance with the Locomotive Inspection Regulations, 49 CFR Part 230, or because of any other unsafe condition). First, the inspector notifies the railroad in writing, citing the specific defect. After receipt of this notice, the railroad must immediately remove the car or locomotive from service until repairs are made. The carrier must notify the regional administrator in writing before returning equipment to service, specifying repairs that have been completed. (Notifications concerning locomotives should include a subscription under oath.)

**Procedures for Notices Concerning Track -** Once a track inspector has determined that track does not comply with requirements for the class at which it is being operated (as defined in the Track Safety Standards, 49 CFR Part 213), he or she notifies the owning railroad in writing. This notification advises the railroad that the subject track segment(s) have been lowered in class, and that maximum train speeds over the track must be lowered accordingly. The railroad notifies the regional administrator in writing when track has been restored to a higher class, specifying repairs that have been made.

**Special Notice Appeals -** Special notices for repairs may be appealed by letter or telegram to the regional administrator, who assigns another inspector to investigate the situation. Based on the outcome, the regional administrator may terminate the special notice or deny the appeal. If the appeal is denied, the railroad may, within 30 days, appeal to the FRA Administrator. Following an informal hearing, the Administrator may affirm, set aside, or modify, in whole or in part, the action of the regional administrator.

## Civil Penalty Against the Railroad or Shipper

Of all the enforcement tools available, inspectors utilize civil penalties against railroads far more frequently than any others. In a typical year, RCC processes about 6,500 violations against railroad companies, as opposed to slightly more than a handful against individuals.

To assess a civil penalty against a railroad, FRA must prove violation of the law. There are no other criteria. Unless RCC determines that a more severe penalty is needed, FRA usually follows the penalty schedules for the relevant section of the Code of Federal Regulations. The current minimum civil penalty per violation is $650 and the current ordinary maximum civil penalty per violation is $25,000; however, as discussed below, violations of up to $105,000 may be assessed.

**Procedures for Assessing Civil Penalties Against Railroads -** Once RCC's staff attorneys receive recommendations (submitted as violation reports) from the field, they review them for legal sufficiency and assess the appropriate penalties. They then provide to the alleged violators copies of the final reports, with cover letters that assess initial penalties but invite discussion and negotiation. Respondents are given the opportunity to present defenses and/or mitigating factors.

The smaller railroads and shippers handle most of their violations on a case-by-case basis, by phone or mail. FRA usually arranges annual settlement conferences for the larger railroads, where large numbers of cases are covered. These conferences permit attorneys and FRA technical staff to communicate directly with high-level railroad officials about critical safety issues. Based on information received, FRA attorneys negotiate compromises and prepare settlement offers. Ordinarily, these negotiations lead to settlement, which allows FRA to avoid costly litigation of each penalty case.

**Extraordinary Civil Penalty**
RCC may assess extraordinary civil penalties of up to $105,000 "where a grossly negligent violation or pattern of repeated violations has created an imminent hazard of death or injury to persons, or has caused death or injury" (See 49 CFR Part 209, Appendix A). For example, if a track defect previously known to the railroad causes an accident and several deaths, this violation would warrant an extraordinary penalty.

**Individual Liability**

Because of the potential impact on an individual's livelihood, inspectors pursue individual sanctions (particularly disqualification) sparingly. However, some cases require such an action to adequately protect public and employee safety. In pursuing individual liability, FRA is committed to a policy of fairness that avoids making individuals scapegoats for the failure of corporations. Action against an individual does not preclude an inspector from recommending that civil penalties be assessed against the railroad or shipper.

**Regional Warning Letter -** This tool is used when an individual either has "willfully" violated a regulation or has demonstrated "unfitness" for safety-sensitive service, and the regional administrator believes a written warning to the individual, with a copy to the railroad, will provide an adequate deterrent effect. The letter and violation report are filed for evidence to support a future enforcement action if necessary. Inspectors and regional administrators may use this tool independently of headquarters management or RCC.

As defined by the Code of Federal Regulations, "willfulness" is behavior that evidences reckless disregard of the requirements of a law or regulation, even if it cannot be shown that the violation was deliberate. However, where the individual has been directly ordered by a superior to violate a law or regulation, the conduct ordinarily will not be regarded as willful. In such circumstances, the superior is held accountable (See 49 CFR Part 209, Appendix A).

According to the Code of Federal Regulations, railroad employees demonstrate "unfitness for safety-sensitive service" by repeated violations of FRA regulations or particularly serious violations. Willfulness is not a prerequisite, nor does it alone demonstrate unfitness (see 49 CFR Part 209, Appendix A). To determine the fitness of alleged violators, inspectors should consider the violation's severity, risk, or actual harm caused by the violation, and the employee's record of compliance. The more serious offenses may warrant a disqualification proceeding rather than a warning letter.

**Procedures for Regional Warning Letters -** First, the inspector advises the alleged violator in person or by telephone of plans to recommend a warning letter. The inspector carefully notes the circumstances and time of the violation, as well as the time of the notification. If the regional administrator concurs with the inspector's recommendation, he or she will mail the warning letter by registered mail, with a copy to the Associate Administrator for Safety and regional file. If the regional administrator determines that no violation has occurred, the inspector must contact the individual with this information.

**Chief Counsel Warning Letter (Issued by the Office of Chief Counsel) -** When recommending an official warning letter or individual penalty against a railroad employee, the regional office first contacts the Director of the Office of Safety Assurance and Compliance and RCC for guidance. All three measures require the inspector to forward a copy of the violation report with photos and other evidence. The inspector then advises the alleged violator(s) in person or by telephone that formal enforcement action has been recommended. Based on the information received, RCC determines the most appropriate enforcement strategy. If RCC determines that a violation has not occurred, the inspector must contact the alleged violator(s) with this information.

RCC utilizes official warning letters where doubt exists as to the offender’s knowledge of the law, or where the offense is not highly serious and a warning is deemed adequate to prevent

a recurrence. RCC issues a total of about 10 official warning letters per year.

## Civil Penalty Against Individuals

To assess a civil penalty against an individual, RCC must demonstrate "willfulness" on the part of the individual. For example, if an individual orders a piece of defective equipment into service after an FRA inspector has issued a special notice for repairs, this action represents willful conduct.

**Procedures for Assessing Individual Penalties -** After determining that action against an individual is appropriate, an FRA inspector submits a recommendation (on the violation report) to RCC via the regional administrator. Then the inspector informs the individual in writing of the region's intention to seek a civil penalty.

If RCC determines the case is meritorious, the Office issues a penalty demand letter, encouraging discussion (through the mail, over the phone, or in person) of defenses or mitigating factors. RCC also advises the individual to obtain an attorney. All parties then try to negotiate a settlement. If settlement can't be reached, FRA sues for the penalty amount in the U.S. District Court. An administrative hearing is not an option for most civil penalty cases, with the exception of those cases involving hazardous materials violations.

**Individual Penalties for Hazardous Materials Violations -** RCC assesses individual penalties of up to $50,000 for hazardous materials violations, and up to $105,000 if the violation results in death, serious illness or severe injury to any person, or substantial destruction to property. To receive an individual civil penalty, an employee of a railroad, shipper, etc. must "knowingly" (through the failure to exercise reasonable care) commit an act that violates the HM regulations. To assess HM civil penalties, RCC considers the:

- Nature and circumstances of the violation,
- Extent and gravity,
- Degree of the respondent's culpability,
- History of prior offenses,
- Respondent's ability to pay,
- Effect on respondent's ability to continue in business, and
- Such other matters as justice may require.

To pursue and enforce HM civil penalties, RCC follows the same procedures as for the disqualification of individuals, including the option of holding an administrative hearing.

## Extraordinary Remedies

While civil penalties are the primary enforcement tool under the Federal railroad safety laws, more extreme measures are available under appropriate circumstances.

**Disqualification of Individuals -** To have an individual disqualified from safety-sensitive service, RCC must demonstrate the "unfitness" of the individual for such service. Disqualification is not an option under the HM Regulations. Examples of conduct that may warrant disqualification proceeding include:

- Repeated orders to subordinates to violate safety laws or regulations,
- On-duty use of alcohol or drugs resulting in loss of life or serious injury to others, and
- Continued violation of a regulation for which a civil penalty was previously assessed.

Individuals who are subject to disqualification proceedings have a right to an administrative hearing with a DOT hearing officer presiding. They may then appeal to the FRA Administrator, and finally, to the U.S. Circuit Court of Appeals.

**Procedures for Disqualification Proceedings -** First, RCC serves notice of the proposed disqualification (with a copy of the evidence) to the respondent and railroad management. The notice contains:

- A statement of the rules, regulations, orders, or standards that the respondent allegedly violated,
- Allegations,
- Effective date, duration, and other conditions of the disqualification order,
- Respondent's right to counsel and a hearing, and to answer charges in writing or respond informally to RCC, and
- Consequences of the respondent's failure to act on the notice.

The respondent has 30 days to reply to the notice and/or request a hearing. At least 10 days before the administrative hearing, a pre-hearing conference is held to simplify issues, identify witnesses, determine the possibility of settlement, and obtain advance rulings by the presiding officer on admissibility of evidence.

The hearing is held within 180 days of the respondent's request for a hearing, with notice at least 20 days beforehand. Most administrative hearings are open to the public, unless the presiding officer determines that it is not in the best interests of the respondent, witness(es), or other parties.

The initial decision of the presiding officer can become final 35 days after issuance. However, the respondent may file an appeal with the FRA Administrator within this time frame. The decision of the Administrator is final and not subject to further administrative review. However, the respondent still has the option of appealing to the U.S. Circuit Court of Appeals, which can extend the process for years.

**CFR-Specific Individual Sanctions -** According to 49 CFR Part 240, an engineer who violates specified operating rules is subject to decertification by the railroad. As stated in 49 CFR, Part 219.102, an employee determined to have used a controlled substance is subject to removal from covered service pending evaluation and any needed treatment.

In circumstances such as those above, where safety laws and regulations already have resulted in substantial sanction against individuals, additional civil penalties or disqualification actions would be redundant, and therefore are not pursued.

**Criminal Penalties -** FRA has authority to cite criminal penalties against individuals for "knowingly and willfully" falsifying, destroying, or failing to complete records or reports required to be kept under FRA regulations and emergency orders. (The HM regulations and Railroad Noise Emission Compliance regulations are excluded.) In such cases, agencies usually seek prosecution of railroad officials who cause the records to be concealed, destroyed, or falsified. Certain knowing and willful records and reports violations may result in criminal penalties of up to $250,000 per offense against individuals and $500,000 per offense against corporations and up to 5 years imprisonment (see 18 U.S.C. 1001. See also 49 U.S.C. 21311 — up to 2 years imprisonment and $250,000/$500,000 fine for railroad safety laws offense). The Federal hazardous material transportation law also provides for a criminal penalty of not more than $250,000 and imprisonment of not more than five years for any person who knowingly, recklessly, or willfully violates a statutory or regulatory requirement.

## Compliance Agreements

**Definition of a Compliance Agreement based on agency practice:** A written agreement related to railroad safety, entered into between FRA and a railroad company, in which the railroad agrees to take certain stated actions to remedy existing or past violations of the Federal railroad safety laws or to prevent future violations, or both. Further, the railroad company agrees that if it fails to take those actions it will waive its rights to contest FRA's issuance of a compliance order (see Compliance orders below) or even an emergency order against the railroad. In addition, in the written agreement, FRA agrees to do something or not do something, e.g., agrees not to cite the railroad for civil penalties for certain violations. The great advantage of a compliance agreement, compared to a proceeding for a compliance order, is that a compliance agreement becomes effective without the need for any lengthy process and, if violated, may be readily converted to an order that has the force or effect of law.

**Authority to enter into compliance agreements:** There is no specific statutory authority for a compliance agreement in the Federal railroad safety laws, but it could be argued that the authority to enter into a compliance agreement derives in part from FRA's delegated statutory authority to issue a compliance order (49 U.S.C. 20111(b) and 49 U.S.C. 5121(a)) and that a compliance agreement is similar to a consent order under the compliance order procedural regulations at 49 CFR Part 209.207. A consent order is issued after FRA has begun a proceeding for a compliance order, if the respondent and the Chief Counsel have executed a written agreement proposing the entry of a compliance order by consent, and if Administrator approves the proposed order by signing it. Because only the Administrator may sign a compliance order, the Administrator generally signs compliance agreements, but may delegate that authority.

## Compliance Order

FRA may issue compliance orders or non-emergency injunctions when the cooperative approach has not worked, and civil penalties are either inappropriate or have proven ineffective in particular circumstances, but the violation(s), or pattern of violations, do not create an emergency.

Compliance orders permit FRA to require railroads to engage in supplementary activities to promote

compliance, such as changes to a railroad's internal procedures or development of training programs. Compliance orders are useful when problems identified can be traced to lack of a systemic or adequately funded program.

A major disadvantage of compliance orders is the large investment of program and legal resources necessary to implement them. FRA may issue a compliance order only after receiving the consent of the offending party or following a notice and hearing. Therefore, FRA uses this tool sparingly, usually for small railroads with patterns of violations, and which agree to waive hearings. FRA pursues court injunctions for more complex situations.

**Procedures for Compliance Orders -** When recommending a compliance order, the regional office telephones RCC in advance of sending written material. This enables RCC to provide advance guidance on the best approach and documentation needed. RCC then prepares and issues a Notice of Investigation, stipulating the pattern of violations and proposed remedial action. This notice contains:

- A statement of legal authority,
- Allegations, and
- Remedial action sought.

The notice may be amended up to entry of the final compliance order, and the alleged offender has 30 days to respond. If the railroad or shipper chooses not to contest, all parties can agree on a Consent Order, to be approved and signed by the FRA Administrator. Each respondent who contests a notice is entitled to a full administrative hearing process, in which case, FRA has the burden of proof. If FRA is successful, the compliance order becomes effective 20 days after issuance. However, the respondent may file an appeal with the FRA Administrator within 20 days of the presiding officer's decision. The Administrator has the final decision. Filing the appeal does not stay the effectiveness of the compliance order unless so provided by the Administrator.

### Injunction

An injunction is a court order from the U.S. District Court Judge requiring a railroad or shipper to comply with the law immediately. FRA uses this tool to stop a pattern of violations that do not present an emergency, but which the railroad or shipper has not acted to prevent despite civil penalties or warnings from FRA.

A court injunction potentially can subject the alleged violator to contempt of court, resulting in criminal prosecution. Unlike emergency orders, which can be made effective immediately by FRA's unilateral action; injunctions are effective only after a Federal district judge has been persuaded to issue them. Before proposed injunctions go to District Court, the Department of Justice must clear them.

### Declaratory Order

FRA may seek a declaratory order, either separately or in combination with an injunction, to resolve questions regarding interpretation of a statute, regulation, or administrative order.

**Emergency Order**

The Federal Railroad Safety Act of 1970 gives the FRA Administrator power to issue an emergency order if the agency determines "on the basis of testing, inspection, investigation, or research that an unsafe condition or practice (or combination) creates an imminent hazard of death or serious injury." This Act allows the Administrator to impose restrictions or prohibitions necessary to bring about abatement of the emergency situation. A hazard is "imminent" if it is reasonably likely to result in death or serious injury to public or railroad employees before a civil penalty action or compliance order proceeding could be expected to produce a remedial action.

To survive judicial review, emergency orders must contain a reasonable prescription for abatement of the emergency. This determination is based on the expert judgment of FRA's inspectors, regional administrators, headquarters staff, and, ultimately, the Administrator.

In general, an emergency order is appropriate to address an unforeseen safety problem or one that has unexpectedly worsened. Two criteria must be met:

- Public or employee safety is immediately and seriously threatened; and
- The railroad does not respond, fails to follow through promptly, or the agency's prior experience with the railroad raises legitimate doubt that follow-through will be undertaken as promised.

FRA also may issue an emergency order when a railroad fails to comply with a special notice for repairs.

**Procedures for Emergency Orders -** The inspector first informs the railroad or shipper of the precise nature of the hazard and requests its immediate correction. When the railroad or shipper fails to act promptly and effectively to resolve the problem, the inspector then recommends to RCC via the regional office that the agency invoke emergency powers. Based on the information provided, RCC determines whether an emergency order or some other remedial measure (such as an injunction) is appropriate.

After RCC determines that an emergency order should be issued, the FRA Administrator must approve and issue the order. As with compliance orders, respondents who contest emergency orders are entitled to full administrative hearings, which were described earlier in this chapter. The filing of an appeal does not stay the effectiveness of an emergency order, unless so directed by the FRA Administrator.

**Track Emergency Order -** FRA issues the track emergency order when a special notice for repairs (which lowers track class) has been determined inadequate to abate the emergency situation caused by poor track conditions. Through a Notice of Track Conditions, the inspector notifies the (owning) railroad in writing of the track defects and hazards they pose. Copies are provided to the FRA track engineer and regional administrator. If the railroad immediately completes repairs and notifies FRA of those repairs, the track engineer assigns an inspector to assure that the repairs were made as requested. If so, the Notice of Track Conditions is withdrawn. If not, the regional office recommends that the agency issue a track emergency order.

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**Procedures for Issuing a Track Emergency Order -** The regional administrator receives the Notice of Track Conditions and prepares a recommendation to the FRA Administrator to issue a track emergency order. The Administrator reviews this recommendation, all material received from the railroad, and the report submitted by the track engineer. If the Administrator concurs, an emergency order removing track from service is issued.

## Enforcement Discretion

FRA does not need to respond to every situation of noncompliance with Federal railroad safety laws with a formal enforcement action. "Enforcement discretion" allows FRA to select which cases to pursue (considering limited resources) and the best method of promoting compliance. Inspectors, regional offices, and headquarters personnel periodically analyze relevant data on accidents, incidents, and inspections to determine patterns of noncompliance or trends that might require more stringent or broad-based enforcement actions. Conversely, data which indicate that a railroad has a good overall safety record, particularly regarding the specific regulation in question, might dictate less stringent enforcement measures, such as informal warnings.

To ensure effectiveness, fairness, and an acceptable level of consistency in the exercise of enforcement discretion, the Code of Federal Regulations provides general guidelines (See 49 CFR Part 209, Appendix A). FRA's policy, as discussed in the CFR, establishes seven factors to be considered in making enforcement decisions.

**Inherent Seriousness of the Condition or Action -** "Inherent seriousness" is the relative severity of the violation itself (compared to related violations), apart from the immediate circumstances. For example, incomplete shipping papers that fail to identify hazardous materials constitute a more serious violation than do incomplete shipping papers which provide such identification. As another example, a freight car wheel that is loose on the axle is more serious than a wheel with a small crack.

FRA's schedules of civil penalties take into account the inherent severity of violations. National data on accidents, incidents, and hazardous materials releases over several years can provide useful insight into the most dangerous violations. While often deferring to an inspector's judgment, regional managers must review proposed enforcement actions to ensure that they are logical, consistent, defensible, and appropriate.

**Kind and Degree of Potential Safety Hazard the Condition or Action Poses in Light of the Immediate Factual Situation -** While the first factor focuses on seriousness apart from circumstances, this factor emphasizes the potential for injury or property damage posed by the violation in the context of its actual facts. For example, a track defect becomes potentially more hazardous if it occurs on a relatively high speed line with heavy hazardous materials or passenger traffic. Likewise, failure to secure all openings of a tank car creates more of a potential hazard depending on the nature of the material or whether a leak actually occurred. On the other hand, a broken freight car wheel (inherently serious) may not pose a significant hazard if found on an inbound inspection to a major repair point where FRA is confident repairs will be made, and precautions have been taken in the meantime.

**Any Actual Harm to Persons or Property Already Caused by the Condition or Action** - Enforcement action should always be taken when a violation either has caused or contributed to the severity of harm to persons or property. The violation does not have to be the sole or

primary cause if it contributes to the severity of the harm. In such cases, violation reports must explain the nature and extent of injuries or property damage. These cases are often strong candidates for extraordinary penalties; therefore the reports should provide adequate information to support such claims. If no relationship between the violation and the harm can be demonstrated, the violation still may be a strong candidate for enforcement.

**The Offending Person's General Level of Current Compliance as Revealed by the Inspection as a Whole** - Most FRA inspections or investigations concern more than one event or piece of equipment. This enables the inspector to determine the railroad's or offeror's general level of compliance. If overall compliance is good, the inspector may conclude that the violation is an unusual occurrence, not requiring enforcement action. On the other hand, violations may be so common that they warrant an extraordinary remedy such as an emergency order.

Usually, the situation is somewhere in between, requiring the inspector to balance this factor against the seriousness of the violations and other factors. For example, an MP&E inspector who inspects 100 cars in one day and finds few defective conditions might recommend
enforcement action on only the most serious violations. On the other hand, this inspector may find numerous violations of a non-serious nature, which indicate a poor compliance record. Therefore, the inspector might recommend enforcement action on most or all of the violations discovered.

**The Person's Recent History of Compliance with the Relevant Set of Regulations, Especially at the Specific Location or Division of the Railroad Involved** - This factor helps inspectors to identify patterns of noncompliance that might not be apparent from a single, isolated inspection, or to identify patterns of good compliance that might temper inspectors' reactions to otherwise unsatisfactory inspections.

While inspectors may form impressions about companies and specific locations based on experience alone, resource limitations prevent them from getting to all locations as frequently as would be preferable. Therefore, inspectors should review national and regional data to get the complete picture. As a rule of thumb, the older the information, the less useful it is, and the more specific the information (e.g. a clustering of violations regarding a specific
regulation), the more useful it is.

Inspectors apply this data in various ways. When one facility or division of a railroad system achieves a high level of compliance compared to the rest of the company, inspectors usually encourage such efforts by taking enforcement actions only on the most serious matters. Conversely, a facility which performs much more poorly than the rest of the company likely will receive penalties or other enforcement actions on even the less serious violations, to increase the deterrent effect.

When a broader trend in the data indicates a systemic cause (e.g. a particular railroad's frequent noncompliance with the hazardous materials placement regulations), regional and headquarters officials get involved. Such cases are good candidates for the Safety Assurance and Compliance Program, which involves a systemic review of the railroad by FRA and railroad officials, who aim to identify the root causes of noncompliance, not just the symptoms or violations. After FRA and railroad officials conduct this review, they meet to

discuss and concur on a Safety Action Plan. FRA then periodically evaluates the railroad's performance on meeting its action plan objectives. Other enforcement measures FRA may take include injunctions, compliance orders, or emergency orders.

**Which Enforcement Remedy is Most Appropriate Under the Circumstances -** When deciding whether a violation is serious enough to warrant a formal enforcement action, inspectors need to consider how much time would be required to obtain supporting documents and prepare the violation report. More time spent preparing reports means less time spent inspecting. Therefore, inspectors must be selective about which violations most need to be deterred because of seriousness, frequency or other compelling reasons.

**Such Other Factors as the Immediate Circumstances Make Relevant** - The most common additional factor inspectors consider is the violator's culpability, i.e. the relative degree of blameworthiness. Most of the railroad safety laws do not consider a person's mental State. Most laws provide for strict liability, i.e. if the violation occurred, the offender may be penalized whether the actions were purposeful or accidental. In some areas, however, FRA must prove a certain level of knowledge to assess a penalty or take another specific enforcement action. In hazardous materials cases, FRA must show that the violations were committed "knowingly." In track cases, FRA must show that the violator knew or had notice of the noncomplying conditions. In civil penalty cases against individuals, FRA must show that the violation was committed "willfully." (A clearly willful violation may warrant enforcement action even if isolated or not especially serious, because it indicates an overall poor attitude toward compliance that could lead to more serious violations.)

Sometimes, a violation is the result of a good faith misunderstanding of the relevant law, which often happens when a regulation is brand new or inherently ambiguous. Unless the violation is very serious, inspectors ordinarily would not take enforcement action in such cases.

Culpability is also low when a violation is discovered on the property of one company (which has not had reasonable opportunity to correct it), but is clearly more attributable to another company. For example, when an inspector finds on railroad property a placarded tank car with loose fittings (that could not be observed from the ground) and no evidence of a leak, he or she usually identifies the car's offeror as the culpable party. This is because the offeror has primary responsibility to ensure that all closures on a car are secured in such a manner as to remain secured under conditions normally incident to transportation. Unless evidence exists of vandalism or rough handling since the car left the offeror, the inspector cites the violation against the offeror to uncover at the root cause of the problem.

# Chapter 14

# The Civil Penalty Process

# The Civil Penalty Process

## Introduction

The violation seeking civil penalties against railroad is the enforcement action most commonly used after the defect notice and spoken warning. The civil penalty enforcement system is absolutely vital to FRA's safety mission. The best explanation of the civil penalty process is found in Appendix A to 49 CFR Part 209. This appendix is FRA's official statement of enforcement policy and should be reviewed by all individuals involved in the enforcement process. A simple checklist to guide violation preparation is included in this chapter. Inspectors should always follow a violation notice marked on an inspection report with a violation report.

## Enforcement Discretion

Appendix A to Part 209 explains how FRA exercises its enforcement discretion, and lists various factors that an inspector considers in determining which instances of regulatory or statutory non-compliance merit a recommendation of assessment of a civil penalty. Those factors are:

- The inherent seriousness of the condition or action;
- The kind and degree of potential safety hazard the condition or action poses in light of the immediate factual situation;
- Any actual harm to persons or property already caused by the condition or action;
- The offending person's (i.e., railroad's or individual's) general level of current compliance as revealed by the inspection as a s a whole;
- The person's recent history of compliance with the relevant set of regulations, especially at the specific location or division of the railroad involved;
- Whether a remedy other than a civil penalty (ranging from a warning on up to an emergency order) is more appropriate under all of the facts; and
- Such other factors as the immediate circumstances make relevant.

Reasonable minds can differ as to whether enforcement action is necessary in a given situation and, if so, which action is preferable. What is important is that every State inspector and State manager be fully familiar with and apply these criteria. Doing so will help ensure effectiveness, fairness, and an acceptable level of consistency in exercising discretion. Consistent application of these criteria will also be in accord with FRA's policy of focused enforcement, i.e., use of our limited resources to attack the most serious and persistent compliance problems.

It is important to note that the enforcement discretion being applied is that belonging to FRA. While inspectors make the initial determinations on the need for enforcement action, regional personnel play an active and important role in reviewing those determinations with a goal of ensuring effectiveness and reasonable consistency. Supervisory Railroad Safety Specialists, along with their Regional Administrator and Deputies, analyze data on accidents, incidents, and inspections to detect problem areas at the regional, railroad, or shipper level. This information is used in making enforcement decisions. Office of Railroad Safety headquarters personnel, with input from the regions, are responsible for spotting national trends that require enforcement action and for providing guidance to the regional and State field staff on difficult enforcement policy issues.

## Inter-regional Coordination

The need for inter-regional coordination is more important than ever with the consolidation of the railroad industry. Interregional coordination has improved in the past few years and further coordination is needed to avoid inconsistent enforcement activities. Frequently, specific enforcement issues extend beyond a specific regional boundary. Regional and headquarters specialists, through periodic conferences, email, and telephone contacts, play a key role in ensuring that system-wide compliance problems are addressed in a coordinated rather than a piecemeal approach. Railroad System Oversight Managers (RSOM) are also involved in discussions of major, inter-regional enforcement issues and provide information to specialists on system-wide compliance problems, especially those on which cooperative efforts are not achieving results.

## Improving Violation Reports

The inspector is responsible for providing the necessary evidence of the violation. Each violation report must contain a narrative portion that includes a detailed description of the current inspection and relevant previous inspections, a summary of the railroad or shipper operation at the location, and a description of the violation. The narrative must be clear and concise. Proofreading is essential. At the end of this chapter is a simple checklist of the ideas discussed here. Inspectors should consult it when drafting reports.

## Submit Reports Promptly

A problem with some reports is the age of the violations alleged. Although FRA generally has five years from the occurrence of a violation within which to initiate a lawsuit on a civil penalty claim[1], as a matter of policy, limited enforcement resources must be used to address much more current compliance issues. When a complaint is received long after a violation occurs and the investigation is lengthy, it could take up to a year or more to submit the report to the Office of Chief Counsel. However, periodically the Office of Chief Counsel receives reports involving violations that had occurred two to three years earlier. Those reports will often be sent back if there is no showing that they are relevant to a current compliance issue. In addition, a region should not hold violation reports longer than a few months when it elects to determine whether a railroad will engage in certain remedial action. If sufficient progress has not occurred by that time, the region should submit the violation reports and, to avoid misunderstanding, inform the railroad that it is doing so.

Just as reports should be submitted to the Office of Chief Counsel promptly, reports should be reviewed by the attorneys and transmitted to the railroad or shipper as soon as possible for the same reasons as discussed above. The Office of Chief Counsel has established a goal of transmitting (if legally sufficient) each violation report within 120 day of receipt within the Office. During the past few years, average transmittal time has been in the 70 to 80-day range.

## Determine Elements of Violation

The first step in preparing a violation report should be to review the regulation or statute that may have been violated. The law or regulation will state exactly what FRA would have to prove to sustain the claim. Every element of the violation must be addressed. For example, a Safety Appliance Standards violation ordinarily requires evidence that the defective car was used in that

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[1] For hours of service cases, the rule is slightly different. FRA has five years to go to court only if, within two years of the date of the violation, FRA has transmitted the civil penalty demand letter to the railroad.

condition as well as evidence of the condition itself. If willfulness is alleged, the reports needs to cite evidence indicating that the railroad or individual knew of the facts of the violation and that the action was wrong. (See discussion of willfulness in 49 C.F.R. Part 209, Appendix A.)

**Determine Elements of Violation**

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**Provide Evidence to Prove Each Element**

Having determined the elements of the violation, the writer of the violation report must then determine what evidence is available to support each claim. Often, direct observations by the inspector cover all elements of the violation. Supporting these observations with photographs is extremely helpful, as photographs often preclude challenges to the inspector's accuracy. Digital photographs must be neither enhanced nor altered in any way, and the inspector must be able to testify to that effect. Note that the addition of digital "arrows" or other methods of pointing out the location of the defect or area to be viewed are acceptable and are not considered enhancements or alterations. Documents, especially those prepared by the railroad or shipper, provide another useful source of evidence. With any document, the inspector should describe briefly its source and the purpose for which it is included. Some documents lack readily identifiable markings showing their source. Moreover, the purpose of providing some documents is not always clear. Stating in the narrative what the document shows is very helpful. Inspectors should not attach voluminous documents of tangential relevance. If a large document is not essential to proving an element of the violation but may be of interest in the event of litigation, the inspector should describe the document and its possible relevance and retain it. Inspectors should never alter documents obtained as evidence even for so innocent a purpose as filling in faint words.

Admissions against interest of a railroad or shipper (e.g., a manager's admission that the violation occurred as alleged) may also be used to support a violation or an element of it. Such admissions may be contained in reports of interviews or company documents. Signed witness statements are also a source of evidence. The statement must be written on an FRA-approved form, address the actual elements of the violation, and indicate how the witness knew the facts alleged.

Violation reports and supporting materials should not contain information that is not relevant or useful in proving the alleged violation. For example, inspectors should not include statements reflecting the inspector's personal opinions concerning a company, individual, or organization. Such statements do not support the case and in fact may detract from it by evidencing bias on the part of the inspector and agency. Violation reports and attachments should never contain references to a complainant or indicate that the violation originated with a complaint.

**Anticipate Defenses and Mitigating Factors**

Inspectors should anticipate likely defenses and substantial mitigating factors that the railroad or shipper will likely offer. For example, during settlement negotiations, railroads sometimes submit

their own repair records indicating that a defect on a freight car was not present, or not present in the same degree, as alleged by FRA. If the inspector has obtained the repair record, he or she might have been able to rebut it to the extent it ran counter to the FRA allegations.

Of course, where the repair records show that the alleged defect was present, they provide powerful corroboration of the inspector's observations. Similarly, the railroad might offer in mitigation that the violation was the act of a rogue manager that it has removed or retrained, but the inspector may know that the manager had been warned previously several times and that his supervisors had been informed. If the report does not contain the latter part of this story and inspector is not present at the settlement conference, FRA might mitigate the penalty excessively. Had the full story been presented, the penalty might have been assessed at a higher level. Violations based on witness statements can present particular difficulties if the inspector does not attempt to get both sides of the story and to include relevant information. Railroads defend these claims vigorously and sometimes offer defenses that a more thorough report may have rebutted.

**Statement of Witness**

A violation must be supported by first-hand knowledge of the events that are the basis of the violation. Therefore, unless a violation is substantiated by an inspector's personal knowledge, the railroad's own records, or admissions of railroad officials contained in reports of interview, the violation report should be accompanied by one or more witness statements on the appropriate "Statement of Witness" form. The witness statement must clearly substantiate any element(s) of the violation not established by other evidence. As in any type of case where a violation report is based on information received from a complainant, neither the report nor any of its attachments should reveal that the case arose from a complaint or identify any person as a complainant. The safety laws (49 U.S.C. § 20109(i)) prohibit revealing the identity of anyone who brings a safety complaint to FRA without that person's written permission or until litigation occurs. Each witness statement must contain the time, date, full name, title, and mailing address of the person who was interviewed.

Due to recent revisions to 49 U.S.C. 20109, the standard Statement of Witness form, revised in 2000, that inspectors are to use when obtaining witness statements has been slightly revised. The form now states that a railroad carrier engaged in interstate or foreign commerce may not discharge, demote, suspend, reprimand, or in any other way discriminate against an employee if such discrimination is due in part to the employee's lawful, good faith act done (or perceived by the employer to be done) to (1) file a complaint, (2) notify the Secretary of Transportation of a work-related personal injury or work-related illness of an employee, (3) cooperate with a safety or security investigation by the Secretary of Transportation, the Secretary of Homeland Security, or the National Transportation Safety Board, (4) furnish information to the Secretary of Transportation, the Secretary of Homeland Security, of the National Transportation Safety Board, or any Federal, State or local regulatory or law enforcement agency as to the facts relating to any accident or incident resulting in injury or death to an individual or damage to property occurring in connection with railroad transportation, or (5) accurately report hours on duty. All inspectors should use the new form.

**Reports of Interview**

If a Report of Interview is attached to a violation report, care must be exercised, as this could result in an unintentional FRA noncompliance with the requirements of the law that prohibits disclosure of railroad employees who report railroad safety violations without their written consent. When using a Report of Interview, the inspector must do the following: (1) advise the person that the interview is voluntary; (2) advise the person that the interview will be attached to a violation report and submitted

to the railroad or company when a penalty demand is issued; and (3) prior to submission, the interview report should be reviewed and approved by the person being interviewed, which can be done either by mail or hand delivery. Each Report of Interview must contain the time, date of interview and the full name, title, and mailing address of the person who was interviewed.

**Evidence on Compact Disc or Electronic Storage Media**

The Office of Chief Counsel will address on a case-by-case basis evidence submitted via electronic storage media or compact disc. While there are numerous instances when such evidence would be helpful, such as the actual recording of a dispatcher's communication in addition to a written transcript of the communication, there are legal issues that could arise when evidence is submitted via CD or portable flash drives (e.g., chain-of-custody issues).

**Aerial Maps**

Submitting satellite maps from internet sites can be helpful to supplement violation reports. For example, such maps can show the proximity of a violative condition to a major urban area. While this sort of information may have to be pulled from the case in the event of litigation, it can be left in the transmittal as long as the inspector has adequately labeled the source of the map.

**Third Party Photographs**

Recently inspectors have submitted photographs of alleged violative conditions supplied by third-parties. Such photographs are acceptable if both of the following conditions are met: (1) the inspector clearly notes the source of the photograph on the exhibit, and (2) if the party providing the photograph states in a signed witness statement (on the Statement of Witness form) that: he/she has provided said photograph to the inspector; the date of the photo and the location where the photo was taken; and the photograph has not been altered in any way.

**Provide Useful Background Information**

Every violation report should contain useful background information, especially about the history of compliance and any factors that may have made the particular violation or group of violations hazardous. This information provides context, and often explains why strong enforcement action is needed even on a violation that may not seem inherently serious. If there are substantial mitigating factors warranting special consideration, the inspector should point them out. Of course, in many situations where there are such reasons for mitigation known at the outset, the inspector may exercise discretion in favor of a warning instead of a penalty.

**Violations by Individuals**

Violation reports against individuals require special care. Inspectors and specialists should follow the "Brief Guide to Preparation of Violation Reports Against Individuals" distributed in 1990 and incorporated in the enforcement manuals, and consult the individual liability expert for the Office of Chief Counsel ("IL Expert")as needed. Reports and other required information should be submitted to the Office of Chief Counsel according to the following process.

**Regional/Headquarters Warning Letters -** Regional and headquarters warning letters should only be issued if sufficient evidence exists to show a violation of a safety regulation. Evidence of "willfulness" is not necessary for issuance of a warning letter. For regional warning letters, email five copies of the individual liability form (6180.80) (one each for the employer, Safety, RCC, and the Region), the individual liability memorandum, and relevant and appropriate supporting documentation to your FRA regional attorney, and notify the IL Expert. For headquarters warning letters, email the information to the FRA attorney for the region in which the incident occurred, and notify the IL Expert.

**Chief Counsel Warning Letters, Civil Penalties, Disqualifications -** Mail five hard copies of the individual liability form (6180.80), the individual liability memorandum, and relevant and appropriate supporting documentation to the IL Expert.

**Extraordinary Penalties -** Extraordinary penalties are maximum penalties, multiple violations for days on which a violation continued, and large volumes of reports on the same issue entailing a huge penalty demand. FRA follows the following procedures for violation reports seeking extraordinary penalties. There are two separate procedures based on the total amount of civil penalties being recommended.

**1. Reports Seeking Penalties of Less than $105,000[2], Involving Multiple Days, or Seeking a Maximum Penalty Assessment -** Reports meeting this criteria must be accompanied by a cover memo to the Assistant Chief Counsel, signed by the Regional Administrator or a Deputy. The memo must address the nature of the violations, the amount of the likely penalty assessment if all recommendations are followed, relevant enforcement discretion criteria, and the reasons that the region believes the large penalty demand is warranted. The memo must also discuss background information about the railroad or shipper's compliance history and FRA's dealings with the railroad or shipper on the issue.

The Regional Administrator or Deputy will send a copy of the memo described above to the Director of the Office of Railroad Safety Assurance and Compliance. When RCC receives a memo containing all of the information noted above, the FRA attorney will either follow the recommendations or consult the regional manager who signed it. If the attorney and regional manager cannot agree on a course of action, the Assistant Chief Counsel and Regional Administrator will confer.

**2. Reports Seeking Penalties in Excess of $105,000 -** Reports seeking penalties in excess of $105,000 must follow a two-step process:

Step 1 – Prior to submitting the violation report or group of reports to the Office of Chief Counsel, the region will coordinate with the relevant Office of Railroad Safety Staff Director(s) of the discipline(s) related to the subject matter of the violation. The regional and headquarters staff will determine the appropriate recommended course of action on the report(s) and will have the recommendation approved by the Director of the Office of Railroad Safety Assurance and Compliance before the report(s) are submitted to the Office of Chief Counsel.

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[2] Note that schedules of civil penalties are periodically increased by statutory amendment. As a result the $105,000 threshold mentioned in both Procedure #1 and #2 may be increased over time.

Step 2 – When submitting the violation report(s) to the Office of Chief Counsel the region will provide a cover memo to the Assistant Chief Counsel, signed by the Regional Administrator or a Deputy, addressing all of the following: the nature of the violations; the amount of the likely penalty assessment if all recommendations are followed; the relevant enforcement discretion criteria discussed above; the reasons that the region believes the large penalty demand is warranted; a discussion of the railroad or shipper's compliance history and FRA's dealings with the railroad or shipper on the issue; and, the identity of the relevant Office of Railroad Safety headquarters staff consulted in the matter.

The Regional Administrator or Deputy will send a copy of the memo described above to the Director of the Office of Railroad Safety Assurance and Compliance. When the Office of Chief Counsel receives a memo containing all of the information noted above, the FRA attorney will either follow the recommendations or consult the appropriate headquarters Staff Director as well as the regional manager who signed it. If these parties cannot agree on a course of action, the Assistant Chief Counsel, the Regional Administrator, and the Director of the Office of Railroad Safety Assurance and Compliance will confer.

Violation reports seeking extraordinary penalties that are not accompanied by the above described memorandum containing all of the requested information or that are not properly vetted with the Office of Railroad Safety Headquarters will be handled as expeditiously as possible by the assigned attorney. The Office of Chief Counsel will utilize its professional judgment in determining the penalty amounts and violation counts and will transmit the violation(s) as it does with all violation reports received. In these instances, the procedures identified above are not required to be utilized. When sending out cases assessing penalties for less than the full number of possible days, FRA attorneys will continue to state in the violation transmittal documents sent to the railroad or shipper that FRA reserves the right to seek penalties for every day a violation continued in the event litigation becomes necessary.

Inspectors should keep certain principles in mind in determining what the penalty assessment would be based on the inspector's recommendation. Ordinarily, FRA assesses the amount shown in the schedule of civil penalties for a particular violation, which is found in an appendix to almost every C.F.R. part. If you are recommending an assessment above that amount on any violation, you will need to explain what that amount is and the basis for the recommendation. The maximum civil penalty per violation per day for non-hazardous materials violations is currently $100,000. However, the rail safety statutes require that, to assess a penalty above $25,000 per violation per day, FRA must show that "a grossly negligent violation or a pattern of repeated violations has caused an imminent hazard of death or injury to individuals, or has caused death or injury." Therefore, rather than simply recommending "maximum penalties" please make clear whether you are recommending a penalty of $25,000 or $105,000 per violation (or some amount in between, which is permissible) and provide the appropriate justification. For hazardous materials violations, the ordinary maximum penalty is $50,000, except the maximum civil penalty is $105,000 if the violation results in death, serious illness, or severe injury to any person, or substantial destruction of property. The hazardous materials penalty schedule is found in Appendix B to 49 C.F.R. Part 209. Recommendations for extraordinary penalties on hazardous materials violations will need to follow the procedures identified above.

## Civil Penalty Transmittals and Settlement

**Transmittals -** The Safety Law Division of the Office of Chief Counsel receives thousands of violation reports from the field each year. FRA attorneys review each violation report for legal sufficiency. In determining legal sufficiency, the attorneys make sure that the violation report contains evidence that supports each element of the alleged violation. If a regulation requires that x and also y (the elements of the violation) be present for there to be a violation, the attorneys will ensure that evidence showing the existence of both x and y are present. They also look for possible defenses that could be presented by the railroad's or shipper's attorney to counter the allegations. A legally sufficient violation report is grouped into a case with other pending reports concerning the same regulations and against the same entity. With the introduction of the new Railroad Enforcement System virtually all cases will contain five or fewer violation reports. Additionally each case will only contain reports from one region which will facilitate regional review for settlement purposes.

On average, attorneys transmit violation reports within about 75 days of their arrival in the counsel's office. FRA attorneys then negotiate a compromise applying statutorily mandated criteria that are similar to the criteria FRA inspectors employ in exercising discretion at the beginning of the process. One difference, however, is that the attorney must consider mitigating factors and defenses offered by the railroad in negotiations. If a reasonable settlement is not reached, FRA, through the U. S. Department of Justice, will litigate the case in Federal court for the full initial demand. If the case cites violations of the Hazardous Materials Regulations and the respondent has preserved its rights to an administrative hearing, then an administrative hearing, and potentially, administrative appeals must occur first.

## Settlement Conferences

FRA attorneys routinely invite FRA and State enforcement personnel to the settlement conferences with major railroads, which usually occur once a year. It is the attorney's responsibility to try to accommodate the schedules of all involved, which is not always possible given the number of people who want to participate. There are occasional complaints that settlement conferences with two major railroads are too close together to permit regional staff to attend both while still pursuing their other work assignments. FRA attorneys have been directed to do their best to avoid such problems, but it is not always possible to do so. In those cases, the attorney will request affected Regional managers to jointly assign knowledgeable staff from each discipline to the various conferences.

Attendance at the conferences offers an opportunity to exchange views on compliance issues with top railroad personnel while FRA has the leverage provided by the penalty demand, and provides direct experience with the nature of the vigorous challenges to our allegations often presented by railroad counsel and managers. Regional Managers should advise State Managers of scheduled Settlement Conferences and invite state personnel to attend. All inspectors should attend at least one conference early in their careers.

The settlement conferences are led by the FRA attorneys. As in any negotiation between potential litigants, these conferences are meetings between attorneys, with technical experts in attendance for assistance when needed. FRA or State inspectors or regional managers are there to assist the attorney in representing the Federal government. Prior to the beginning of the settlement conference, the FRA attorney will try to hold a pre-meeting with FRA and State personnel in which the settlement conference ground rules are established. However, because scheduling doesn't

always permit such meetings, all FRA and State personnel should be aware that they should not volunteer any statements in a settlement conference unless requested to do so by the attorney handling the negotiating session. All FRA staff and State inspectors must follow the lead of the FRA attorneys during these conferences.

Do not openly disparage, on policy, technical, or other grounds, FRA violations being negotiated. In the past, some inspectors have said, “We would never have written this violation in our region,” or worse yet, “We wouldn’t have written the violation if it hadn’t been for the complaint FRA received.” While a specialist or inspector may not think a claim is worthy, there may be more to the matter than meets the eye, such as a history of noncompliance in another region making the case stronger than it may appear standing alone, or facts that could be obtained from the inspector who wrote the report to buttress the allegations. While the FRA needs straightforward advice, discretion must be used in choosing when and how to give it. For example, never publicly comment negatively about a claim unless the attorney asks for your comment and the attorney is aware of your view. Never reveal that a violation resulted from a complaint. Never disparage the railroad or any of the railroad’s personnel attending the conference.

Office of Railroad Safety and State staff should never promise that a violation will be terminated. Sometimes FRA attorneys are presented with a statement from the railroad that its personnel had been assured by regional personnel that a certain claim would be terminated. That should never occur. While the attorneys carefully consider recommendations from the Office of Railroad Safety headquarters and field staff and State personnel, the authority to terminate, settle, or litigate a transmitted civil penalty resides in the Office of Chief Counsel. This arrangement protects all concerned and the integrity of the system. Inspectors should not submit recommendations for enforcement action with the thought of merely getting the railroad’s attention and later withdrawing the case. Once a case has been transmitted to the railroad or shipper, the Office of Chief Counsel will collect at least the statutory minimum on all sustainable violations.

# Checklist for Writing Violation Reports

**Establish Elements of Violation**

- Review language of specific regulation or statute violated
- Address each element of the violation in logical order
- If willfulness is alleged, explain basis (see discussion of term in 49 CFR Part 209, App. A)

**Determine Likely Sources of Evidence to Support Each Element of Violation**

- Inspector's own observations
- Photographs: very helpful if violation lends itself to being captured on film
- Documents: describe source of each document and purpose for including it (how does it help make the case?)
- Do not alter the document
- Admissions against interest: statements by company officials or employees admitting violation can be found in company documents or reports of interview
- Signed witness statements: need to address elements of violation and basis of witness's knowledge

**Anticipate Defenses or Mitigating Factors**

- Consider records railroad might offer to rebut allegations (e.g., repair records contradicting our version of events); obtain them and explain why they don't defeat case
- Expect challenges to allegations based solely on witness statements; make sure statements anticipate and rebut those
- Anticipate ways the railroad may try to minimize seriousness of violation or mitigate by reference to remedial action, and explain why such points are or are not valid

**Provide Important Background Information**

- Recent history of compliance with relevant set of regulations, especially at the location of interest
- Course of dealings with railroad or shipper on this enforcement issue
- Any circumstances that make this violation especially hazardous
- Any circumstances that substantially mitigate the seriousness or culpability
- Alleging violations for multiple days, seeking maximum penalty, or seeking total penalties in excess of $105,000? If yes:
  - violation report should very briefly summarize basis of request for penalties
  - consult region and determine who will draft cover memo from regional manager that will provide more extensive discussion of need for such penalties
  - need only one cover memo for related group of violation reports

**Review Draft Report**

- Quality control: fix typos, misspellings, etc., and remove any references to a complaint or Complainant; remove opinions about companies and individuals
- Ask yourself if all elements of violation are satisfactorily addressed
- Ask a colleague (even from another discipline) to read the draft to see if it clearly states the case and answers relevant questions and identify possible railroad mitigating factors
- Forward final draft to the discipline specialist for final review and submission

# Chapter 15

# FRA Railroad System Oversight

# FRA Railroad System Oversight

## Railroad System Oversight Elements

Railroad System Oversight is one of the Federal Railroad Administration's processes to achieve regulatory compliance, encourage railroad labor and management participation in development of measures to enhance safety, and foster an environment that improves the safety of railroad operations. It focuses on a railroad's systemic safety. Safety issues and concerns addressed by this process include those that may result from a lack of systemic control, whether they are manifested across an entire system or appear to be regional or local in nature.

Railroad System Oversight Management includes:

**Communication** - Establishing clear lines of communication within FRA and between FRA and affected groups (e.g., railroad management and labor) so that safety concerns can be resolved. Effective internal and external communication of safety issues is critical to success of the process.

**Partnership** - Identifying safety concerns and, where possible, developing solutions to them through cooperative efforts between FRA and railroad management, labor organizations, States, and other affected groups. Continuing effective relationships even when enforcement actions are necessary. (Compliance with existing laws and regulations is expected and is not negotiable.)

**System safety review** - Systemwide, multi-disciplinary review of railroad operations and safety within a railroad system that includes analysis of accident, injury, and inspection data.

**Safety results emphasis** - Compiling and sharing safety outputs (e.g., safety data, Railroad Safety Performance Report) with railroad managers, labor, and all appropriate elements of FRA to assure understanding of safety and regulatory compliance levels.

**Focused enforcement** - Using available data and information to help FRA regions and States focus inspection resources to aggressively address the most serious safety concerns. Assisting regions in developing solutions to the most serious compliance problems and supporting related enforcement actions.

**Systematic monitoring and follow-up** - Planning, monitoring, and following up on implementation; tracking and measuring the effectiveness of railroad safety commitments.

## Railroad System Oversight - What it Does

The FRA Railroad System Oversight Manager (RSOM) acts as FRA's safety advocate with senior level railroad managers and labor organizations on his/her assigned railroad(s). RSOM responsibilities include but are not limited to:

- Interacting closely and in concert with FRA headquarters (HQ) senior managers and regional administrators and States to develop plans, goals, and activities directed at resolving system-level safety concerns
- Representing FRA in meetings with railroad managers and labor leaders
- Acting as FRA's railroad system point of contact for regional or systemwide issues, to help resolve safety concerns or compliance issues as needed
- Acting as a point of contact for system-level safety issues of interest to labor organizations
- Assisting FRA, States, railroad management, and labor organizations to address safety issues not governed by regulation
- Coordinating with regions, States, and HQ to obtain technical staff necessary to assist in issue resolution for the railroad safety program
- Monitoring the railroad's safety performance on an interdisciplinary basis
- Preparing and disseminating quarterly and annual railroad safety performance reports
- Leading system audits or field monitoring (inspection) activities when requested to do so
- Attending, participating in, and supporting FRA's position at Penalty Settlement Conferences with the assigned railroads
- Arranging and participating in FRA/railroad senior management meetings (annually)
- Facilitating, tracking and monitoring rail management and labor partnership safety activities at the system level
- Encouraging railroad labor and management to develop and track internal railroad safety improvement and quality control programs (These plans are not binding on the FRA and will not directly influence enforcement actions.)

### Regulated Safety Concerns

Regulated safety concerns identified by the RSOM will be promptly brought to the attention of appropriate regional administrators and HQ staff. Systemic safety concerns identified by other than the RSOM (e.g., regional administrators, staff directors) will be brought to the attention of appropriate HQ managers and the RSOM for that railroad. Local or regional concerns will be handled by the regional administrator in accordance with existing policies. The RSOM will act in whatever capacity necessary to help in the resolution of safety issues. The RSOM or designee will assure safety issue status reports are prepared and distributed as necessary.

### Nonregulated Safety Concerns

Nonregulated safety concerns will be addressed by the RSOM in concert with railroad management and labor when FRA's involvement will facilitate resolution. The issues selected must be important to FRA's safety programs and priorities. Railroad management and labor organizations may choose to independently select and work on resolving issues of low priority to FRA. It is essential that the number of issues in which FRA is involved be limited and prioritized to assure adequate resources are available and resolution is timely.

**Identification of Safety Issues**

The RSOM identifies safety concerns using available information and data. Information sources should include but not be limited to:

- accident/incident data
- inspection data
- other FRA reports; i.e., safety complaints (CCM), false proceed signal reports, and grade crossing warning device activation failures
- listening sessions with labor, management, and other stakeholders
- railroad data, records, and reports
- Federal/State safety managers and staff
- railroad labor/management meetings

**Prioritizing Issues**

The RSOM will use specified criteria to help identify and prioritize safety concerns that will be addressed at any given time. Among the criteria to be weighed are:

- accident/incident rates
- potential safety risk
- perception of issue importance
- resource availability
- issue resolution alternatives
- need for root cause analysis
- likely usefulness of partnership approach

Using available resources and specified criteria with input from labor and management, the RSOM determines which nonregulated issues will be selected for FRA involvement. For regulated multi -regional, or systemic issues, the RSOM will consult with affected regional administrators and headquarters staff. The RSOM or designee will assure safety issue status reports are prepared and distributed as necessary.

**Railroad Safety Performance Reports**

A standardized data package with graphs will be used by RSOMs in preparing the railroad quarterly and annual safety performance reports. It will include the following:

- accident/incident summary data comparisons (graphs) showing safety trends for the last 5 years
- data and graphs comparing accident/incident rates with similar railroads
- breakdown of accidents and casualties by discipline (human failures, track, etc.)
- most prevalent accident/incident causes by discipline
- injuries and fatalities by craft, with most prevalent causes by craft
- inspection defect ratios by discipline with the most prevalent defects identified in each discipline
- input from Staff Directors and regional administrators on emerging safety and compliance concerns that may warrant greater attention and efforts

**Railroad Safety Issue Status Reports and Review**

RSOMs will maintain a record of safety issues being handled and their progress toward resolution. At least annually at a Senior Leadership meeting, they will give a summary status report to FRA senior leaders on issues resolved and those remaining open. The senior leadership group will provide input into FRA involvement in open issues and/or FRA's involvement in railroad labor and management committees.

**Safety Issue Resolution**

The RSOM will coordinate the planning, execution, evaluation, and monitoring of system projects. When resources are needed, the RSOM will consult with the affected regions and/or HQ to assign the necessary personnel to accomplish the project goal. During the course of the project, RSOMs will communicate with the affected regions and HQ on project progress. At the conclusion of each system project, a summary report describing the result(s) will be completed by the designated person for review by the affected regions and/or headquarters management. The RSOM or designee will be responsible for ensuring that the issues are properly documented and maintained for future reference.

Nonregulatory safety concerns being handled for resolution collaboratively by FRA and rail management and labor must have milestones and completion dates. The RSOMs, along with their supervisors will monitor this activity and determine the rate of success and/or failure. If progress or resolution stalls on any issue, the issue will be moved out of the process and put on the agenda to be discussed at the Office of Safety Senior Management meeting.

RSOMs will encourage railroads to develop their own internal action and quality control plans to address safety and compliance issues, whether regulated or nonregulated. These plans will not directly influence FRA enforcement actions.

If serious compliance problems or emergency safety issues are found to exist while engaged in a safety-related collaborative effort with a railroad, it should be clear that FRA has a duty to act and will do so irrespective of that collaboration. In such a situation, FRA will take enforcement action but will remain willing to continue collaboration to quickly resolve safety issues.

**Monitoring Remedial Actions**

If a monitoring plan is required, the RSOM is responsible for preparing the plan and coordinating with the affected regions. The monitoring plan includes the following elements:

- issue identification with a timeline for resolution of action items
- identification of those responsible for monitoring
- guidance to participants
- timelines for verification of progress on action items
- communication with stakeholders on status of issues
- data analysis, as appropriate, to measure effectiveness

## Communication

Clear and open communication is fundamental to the success of railroad system-level safety oversight. Internal communication within FRA aids in the identification of systemic safety problems and in the coordination of monitoring efforts. Similarly, external communication between FRA, railroad management and labor is an essential element in building trust and an environment in which collaboration to improve safety can succeed. Without an effective internal and external communication plan, FRA will not be effective in attaining the desired results nor make effective use of resources.

### External Communication

Each RSOM will determine the best way to communicate with railroad management and labor on safety issues, with the following as goals:

- Communicating and advocating FRA's position on safety and compliance issues
- Planning and scheduling annual FRA/railroad senior management meetings
- Facilitating safety problem-resolution efforts
- Communicating with State managers
- Knowing the appropriate and/or most effective contact(s) for specific issues
- Providing a common interface with the railroad on behalf of HQ and the regions
- Being a sounding board for railroad management and labor organizations
- Being a motivating force for railroads to develop their own effective internal action plans to address safety and compliance issues
- Effective outreach to ensure exchange of relevant safety information and data
- Sensitivity to emerging safety issues and related concerns (e.g., political effect, bias)

### Internal Communications

Effective communication within FRA is pivotal to a successful safety improvement program. Critical elements include:

- Actively aiding in identifying and communicating systemic safety concerns
- Promptly communicates regulated and nonregulated safety concerns and issues to HQ senior managers and regional administrators
- Informing all affected parties of issue resolution progress
- Ensuring RSOMs know and communicate FRA policy and position on safety issues
- Having representation at specialist meetings to discuss discipline-specific issues and needs
- Holding periodic Railroad System Oversight staff meetings (in conjunction with FRA Senior Leadership Meetings)
- Holding RSO supervisor and staff meetings with the Deputy Associate Administrator (monthly conference call)
- Meeting at least annually with staff in appropriate regions
- Coordinating with HQ and regions to obtain technical assistance with issue resolutions

- Assuring timely completion and dissemination of railroad safety performance report (quarterly)
- Being sensitive to resource issues and HQ/regional needs and plans
- Maintaining appropriate confidentiality of audit plans or planned regional projects
- Providing feedback to HQ or regional managers, as appropriate, on performance of assigned personnel
- Keeping commitments

## Compliance and Enforcement

### General Guidelines

Railroad system-level safety oversight places special emphasis on liaison and collaboration to solve nonregulated safety problems. Liaisons with labor and senior railroad managers also may be used effectively with regulated safety issues where a legitimate dispute exists in application (e.g., a newly promulgated requirement), or to assist in resolving major compliance disputes.

Noncompliance with regulations will be addressed using standard FRA enforcement policy. When noncompliance is identified in an audit or in other situations (e.g., regular inspections), FRA safety personnel will apply the following guidelines in their inspection and enforcement activities:

> **Record All Noncompliance**: All non-complying conditions found in the course of an inspection should be recorded on inspection reports. Data that accurately reflects field conditions is necessary to help measure a railroad's safety status and is essential to effective FRA safety program development.
>
> **Use Discretion:** Exercise enforcement discretion (e.g., civil penalty recommendation, individual liability) in accordance with criteria found in 49 CFR Part 209 Appendix A.
>
> **Focus Enforcement:** Make a special effort to focus enforcement where it will do the most good; i.e., where accident trends, inspection data, direct observations, and/or the noncompliant condition's inherent seriousness indicate that enforcement action is needed to address a significant safety risk.
>
> **Communicate Findings**: Ensure that appropriate HQ, regional, State, and RSO managers are aware of significant enforcement decisions at an early stage, consistent with FRA's existing inspection guidelines and enforcement policy. Examples of significant enforcement actions include: a large volume of civil penalty actions, individual liability action against railroad craft employees or managers, or intensive regional inspections on a specific subject.

### Participation in Civil Penalty Settlement Conferences

The Office of Chief Counsel (RCC) will include RSOMs in the scheduling of civil penalty settlement conferences with major railroads. RSOMs will participate in those conferences and be fully aware of and support FRA's position on enforcement issues. Within 60 days after a conference, a post-conference critique involving the RSOM for that railroad, an RCC attorney, and headquarters and regional managers, will analyze how well the previous year's enforcement activity focused on important safety issues.

# Chapter 16

# Inspector Continuing Development

# Inspector Continuing Development

## Technical Training Standards Division

The primary mission of the Technical Training Standards Division is to manage the Office of Safety's Technical Training Program for approximately 600 Federal and participating State railroad safety inspectors and specialists of the five technical disciplines (hazardous materials, motive power and equipment, operating practices, signal and train control, and track). To accomplish this mission, the team designs, develops, and delivers specialized internal courses, and administers contract training from external sources as necessary. The course development process involves an evaluation of inspector core competencies and related characteristics in order to integrate essential skills training into course delivery.

Technical training is mission critical and based on organizational needs and is therefore considered mandatory. Various types of analyses are performed to determine organizational needs, including feedback from headquarters, the regions, and the inspectors. Each year, the TTSD develops a catalog of courses and a training calendar of formal classroom and/or field training. On average, the team manages approximately 45 classes in 22 different courses of study each year.

The training is intended for State and FRA inspectors. Although FRA may occasionally invite representatives of the NTSB, FTA, and Transport Canada, they do not provide training for external governmental or civilian organizations.

The TTSD also develops, implements, and monitors formal on-the-job training programs for new safety inspectors and inspector trainees. OJT manuals for each discipline identify specific tasks that must be performed by inspectors during training and specifies the proficiency level that must be attained for qualification or certification. The eight FRA regions are responsible for actual implementation of the on-the-job training program.

All State and FRA inspectors attend approximately two weeks of classroom training each year. Training for new inspectors may involve up to four classes within a year. Training is typically arranged along discipline lines except for training in cross-discipline subjects such as accident investigation. Currently, FRA directly reimburses travel costs to state employees for attendance at FRA sponsored training pursuant to the annual State Railroad Safety Technical Training Funding Agreement. States pay all OJT cost.

## State Manager Training

FRA sponsors an annual three-day training workshop for State managers. Prior to the training workshop, FRA funds a meeting of the Association of State Rail Safety Managers Executive Committee. The primary purpose of that meeting is to plan the agenda for the annual managers workshop, which features FRA Office of Safety leaders and subject matter experts providing detailed briefings on current and projected issues affecting national rail safety. The annual session is an important forum for State manager leadership development and is a means for FRA to assure State programs are fully integrated into the national rail safety effort.

FRA recognized the need to provide basic railroad training to persons without railroad experience. Many State managers fall into this category. To address this training need, TTSD developed

*The FRA Orientation Guide for Other than Inspectors* to provide a basic understanding of the duties of Federal and State inspectors. It is primarily intended for those who have no previous railroad experience and who do not have a good grasp of how inspectors perform their assigned tasks.

The guide consists of a range of typical job duties that inspectors of each discipline could perform on any given day. It is, in effect, a "day in the life of an inspector." Because inspector duties can vary significantly, depending on the circumstances, the guide is comprised of more activities than an inspector would be able to complete in a day. Managers can obtain a copy of *The FRA Orientation Guide for Other than Inspectors* from FRA's State liaison or the TTSD coordinator.

This basic training exercise and individual review of safety regulations will enable State managers to understand an inspector's work. State managers are also encouraged to discuss finer points of regulations with FRA discipline specialists.

**New Inspector Introduction to TTSD Training**

Once the new inspector reports for duty, TTSD initiates the process to include the inspector in its training database. The new inspector will receive an orientation letter and other documents from TTSD regarding training. The TTSD orientation package includes the following items, which are highlighted below:

1. **State Participation Program Profile Form -** A form to collect inspector information, which is used to classify the inspector for TTSD training scheduling purposes.

2. **Traveler's Profile Form** - A travel management system form used to create a profile with the contract travel agency and provide electronic banking information for travel reimbursement.

3. **Blank and Sample Travel Voucher Forms** - The sample voucher is intended to aid voucher preparation following travel to training.

Procedures and forms outlined above are included on the following pages.

## Travel Information for State Inspectors

State inspectors receive written notice of upcoming TTSD training classes. These classes may be scheduled during OJT. State personnel do not work directly with FRA'[s travel management system. The TTSD training invitation will include travel instructions for state inspectors and provide contact information for FRA travel arrangers. State inspectors will be contacted by their travel arranger to establish the travel mode and preferences. The travel arranger provides an electronic copy of the travel authorization and itinerary to the inspector. Airline tickets are not purchased until 48 hours before the flight is scheduled to depart. State employees are responsible for making their own hotel and taxi/shuttle reservations.

Conversations between State employees and regional travel arrangers should include a discussion of airline travel options, including schedules and available carriers. Air travel options may be limited because Government negotiated airline city pair fares must be used whenever possible. If schedules and airline options are not discussed between the State employee and the regional travel arranger, FRA will make flight arrangements without traveler input.

When travel involves flying, SatoTravel prepares an itinerary showing flight information. The traveler should contact their travel arranger if the travel itinerary is not received prior to the departure date. The itinerary/invoice is a required receipt, so the traveler should contact their regional travel arranger if the invoice is not received within three days of the date the trip begins.

Flying is not the only travel option that will be considered for State employee travel to training. If scheduled training involves a trip of 350 miles or less, State employees may be required to drive to and from the training location in a privately-owned vehicle (POV) or state vehicle. FRA will reimburse POV mileage at the rate authorized by Government Travel Regulations. Use of a State-owned vehicle is a State decision. FRA will not reimburse State employees or a State agency for use of a State owned vehicle. If a traveler decides, for personal convenience, to drive their personal or State-owned vehicle to the training site, FRA will reimburse the lowest-cost method of travel, comparing the airfare and associated expenses to the costs incurred by driving a POV.

## Securing Reimbursement of Training Travel Expenses

At the conclusion of travel, State employees must prepare a Federal travel voucher (form SF-1012) for all travel related expenses, including: lodging fees, meals and incidentals (M&IE), hotel taxes, POV mileage to and from an airport, taxi fares (if applicable), airport or hotel parking expenses, etc. The traveler must sign and date the front of the voucher.

The completed form SF-1012 may be mailed or scanned and emailed to FRA within three working days of completion of travel, with all required receipts. Receipts must be provided for all authorized travel expenses over $75. All hotel receipts must have a zero balance. Unauthorized expenses, including hotel or airport high-speed internet connection charges, extra baggage fees, and rental car costs, will not be reimbursed.

Forms that State employees must complete for training and travel and sample travel documents are shown on the following pages.

## State Participation Program Profile
## Federal Railroad Administration Training Program (TTSD)

| | |
|---|---|
| **Date** | |
| **Name (Last, First, Middle)** | |
| **Preferred Name** | |
| **E-mail Address** | |
| **Date of Employment** | |
| **Duty Station Address (Street, City, State, Zip)** | |
| **Business Phone** | |
| **FAX** | |
| **Cell Phone** | |
| **Home Address (If same as Duty Station, enter "Same")** | |
| **Home Phone** | |
| **State Vehicle (Yes or No)** | |
| **Are you permitted to drive the State Vehicle to out-of-state training? (Yes or No)** | |
| **Airport City** | |
| **Airport Code** | |
| **Safety Discipline** | |
| **Last 4 digits of Social Security No.** | xxx-xx- |
| **Date of Birth** | |
| **User Access** | Traveler |
| **Emergency Contact – Full name** | |
| **Emergency Phone number** | |

Save this file by using your last name as the filename.
E-mail to Annette Kute: cecilia.kute@dot.gov of the TTSD program. Revised 10/19/15

## Traveler's Profile Form

Enterprise Service Center
*eTravel New Profile Request*

Print

*Must Use Full Legal Name*

FIRST | MIDDLE | LAST

GOVERNMENT EMAIL* **Note for Invitational Travelers provide Arranger email*

SOCIAL SECURITY NUMBER | ☐ MALE ☐ FEMALE

DATE OF BIRTH | OFFICE PHONE

RESIDENCE ADDRESS

CITY | STATE | ZIP

### *ORGANIZATION INFORMATION*

MINOR CUSTOMER | ROUTING TEMPLATE NAME

*USER ACCESS* Check All That Apply ☐ TRAVELER ☐ ROUTING LIST OFFICIAL (Reviewer, Fund Certifier, Approver) ☐ ARRANGER

USER TYPE | DOCUMENT VIEW ACCESS

ARRANGER ACCESS | REPORTS ACCESS

APPROVER ACCESS | TRAVEL CARD USE

COMMENTS:

### *DIRECT DEPOSIT INFORMATION*

****Only complete direct deposit information if you are a traveler and will receive travel reimbursement.*

FINANCIAL INSTITUTION NAME

NAME ON BANK ACCOUNT

9-DIGIT ROUTING NUMBER | ACCOUNT NUMBER

ACCOUNT TYPE ☐ CHECKING ☐ SAVINGS

TRAVELER SIGNATURE:

### *AGENCY APPROVAL*

*NAME* | *GOVERNMENT EMAIL*

*APPROVER'S SIGNATURE:*

If you have questions completing the form, contact the ESC eTravel Helpdesk at 866-641-3500 opt 7.

**Fax completed form to 405-954-5798.**

**Privacy Act**

Information collected via this form is covered by the Privacy Act of 1974. The information on this form is required to provide you access to the eTravel system and travel reimbursement. Failure to furnish required information may prevent you from gaining access to the eTravel system and/or reimbursement per CFR 209 and/or 210.

# E2 Travel Authorization

Wed Mar 02 09:58:16 CST 2016

PRIVACY ACT NOTICE: The following information is provided to comply with the Privacy Act of 1974(P.S. 93-579). The information requested on the form is required under the provisions of 5 U.S.C. Chapter 57(as amended), Executive Orders 11609 of July 22, 1971, and 1102 of March 27, 1962, for the purpose of facilitating authorization action and the request for advance of funds for travel and other expenses to be incurred under administrative. The information contained in this form will be used by the Federal agency officers and employees who have a need for such information in the performance of their duties. Information will be transferred to appropriate Federal, State, local, or foreign agencies when relevant to civil, criminal or regulatory investigations, or prosecutions. Failure to provide the information required will result in delay or suspension of the processing of this form.

## Authorization Information

| Document Number | Trip Status | Authorization Id | Type of Authorization |
|---|---|---|---|
| T16FRRRS00306RA | Authorization Approved | 7360178 | Trip-by-Trip Authorization |

| Traveler | Official Duty Station | Title | Travel Charge Card |
|---|---|---|---|
| [redacted] | Washington, DC | | No |

| Mailing Address | Office Phone | Home Phone |
|---|---|---|
| [redacted] | 415-269-0961 | N/A |

| Type of Travel | Travel Purpose | Estimated Dates of Travel |
|---|---|---|
| Training | Class 1632 MPE Recurrency | 2016-04-11 thru 2016-04-15 |

## Authorized Itinerary

Cabin Class: Coach (Air)

| Arrive | Depart | Time | Location | Car | Hotel | Mode | Notes |
|---|---|---|---|---|---|---|---|
| 2016-04-11 | 2016-04-11 | N/A | San Jose, CA | NONE | No | CP | |
| 2016-04-11 | 2016-04-15 | N/A | Colorado Springs, CO | NONE | Yes | CP | Temporary Duty, LDG $91, M & IE $59 |
| 2016-04-15 | 2016-04-15 | N/A | San Jose, CA | NONE | No | NONE | |

PA-C = Government auto available and committed
PA-NA = Government auto not available
PA-NC = Government auto available and not committed

## Authorization Expense Totals

| Transport | Lodging | Meals & Incidentals | Car Rental | Local Transport | POV | Misc | Grand Total |
|---|---|---|---|---|---|---|---|
| 777.70 | 356.00 | 265.50 | 0.00 | 0.00 | 0.00 | 294.30 | 1,693.50 |

## Authorization Accounting Information

| Accounting String | Object Code | CBA Amount | Travel Charge Card Amount | Traveler Amount | Auth Amount |
|---|---|---|---|---|---|
| | | 0.0 | 0.0 | 0.0 | 0.0 |

## Travel Authorization Form (cont.)

| Accounting String | Object Code | CBA Amount | Travel Charge Card Amount | Traveler Amount | Auth Amount |
|---|---|---|---|---|---|
| Segment Names: Fund/Budget Year/BPAC/Organization/Object Class | | 0.0 | 0.0 | 0.0 | 0.0 |
| 2716070000/2016/76E200STA0/5000000000/21381 | 0 | 800.32 | 0.0 | 893.18 | 1693.5 |
| | | 800.32 | 0.0 | 893.18 | 1693.5 |

### Authorization Expense Summary

| Location | Expense Category | Expense Type | Amount | Expense Reimbursement Type |
|---|---|---|---|---|
| Colorado Springs, CO | Lodging | Lodging | 356.00 | Perdiem |
| Colorado Springs, CO | Meals & Incidentals | Meals Perdiem | 265.50 | Perdiem |
| Colorado Springs, CO | Misc | Checked Bag Fee | 50.00 | |
| Colorado Springs, CO | Misc | Lodging Tax | 41.68 | Perdiem |
| Colorado Springs, CO | Misc | Other Reimbursable Expenses Incurred | 100.00 | |
| Colorado Springs, CO | Misc | Parking | 80.00 | |
| San Jose, CA | Misc | TMC Fee (Online with Air or Rail) | 7.52 | |
| San Jose, CA | Misc | Voucher Transaction Fee | 15.10 | |
| San Jose, CA | Transport | Airfare | 777.70 | |

### Non Federally Sponsored Expenses

| Expense Category | Sponsored Total | In-Kind Total | Total |
|---|---|---|---|
| | $0.00 | $0.00 | $0.00 |

**TRAVEL VOUCHER**

*(Read the Privacy Act Statement on the back)*

1. DEPARTMENT OR ESTABLISHMENT, BUREAU DIVISION OR OFFICE

2. TYPE OF TRAVEL
- [x] TEMPORARY DUTY
- [ ] PERMANENT CHANGE OF STATION

3. VOUCHER NO.

4. SCHEDULE NO.

5. TRAVELER (PAYEE)

a. Name *(Last, first, middle initial)*: Inspector, Joe

b. SOCIAL SECURITY NO.:

6. PERIOD OF TRAVEL
- a. FROM: 02/09/2009
- b. TO: 02/13/2009

c. MAILING ADDRESS *(Include ZIP Code)*:
1200 New Jersey Avenue, SE
Room: W33-457
Washington, DC 20590

d. OFFICE TELEPHONE NO.: (202) 493-6277

7. TRAVEL AUTHORIZATION
- a. NUMBER(S):
- b. DATE(S):

e. PRESENT DUTY STATION: Anywhere, US

f. RESIDENCE *(City and State)*: Anywhere, US

10. CHECK NO.:

8. TRAVEL ADVANCE
- a. Outstanding:
- b. Amount to be applied:
- c. Amount due Government *(Attached Check Cash)*:
- d. Balance outstanding:

9. CASH PAYMENT RECEIPT
- a. DATE RECEIVED:
- b. AMOUNT RECEIVED:
- c. PAYEE'S SIGNATURE:

11. PAID BY:

12. GOVERNMENT TRANSPORTATION REQUESTS, OR TRANSPORTATION TICKETS, IF PURCHASED WITH CASH *(List by number below and attach passenger coupon; if cash is used shown claim on reverse side.)*

I hereby assign to the United States any right I may have against any parties in connection with reimbursable transportation charges described below, purchased under cash payment procedures (FPMR 101-7) ▶ *Traveler's Initials*

| | AGENT'S VALUATION OF TICKET (a) | ISSUING CARRIER (Initials) (b) | MODE CLASS OF SERVICE AND ACCOMMODATIONS (c) | DATE ISSUED (d) | POINTS OF TRAVEL FROM (e) | POINTS OF TRAVEL TO (f) |
|---|---|---|---|---|---|---|
| Attend Class #0901 | $500.00 | SW | Coach | | Anywhere, US<br>& Return | Anywhere, US |

13. I certify that this voucher, is true and correct to the best of my knowledge and belief, and that payment or credit has not been received by me. When applicable, per diem claimed is based on the average cost of lodging incurred during the period covered by this voucher.

TRAVELER SIGN HERE ▶ | DATE | AMOUNT CLAIMED ▶ $749.96

*NOTE: Falsification of an item in an expense account works a forfeiture of claim (26 U.S.C. 2514) and may result in a fine of not more than $10,000 or imprisonment for not more than 5 years or both (18 U.S.C. 287; I.d. 1001).*

14. This voucher is approved. Long distance telephone calls, if any, are certified as necessary in the interest of the Government. *(NOTE: If long distance telephone calls are included, the approving official must have been authorized in writing by the head of the department or agency to so certify (31 U S C. 680a) )*

APPROVING OFFICIAL SIGN HERE ▶ | DATE

17. FOR FINANCE OFFICE USE ONLY

COMPUTATION

a. DIFFERENCES, IF ANY *(Explain and show amount)*:

15. LAST PRECEDING VOUCHER PAID UNDER SAME TRAVEL AUTHORIZATION

a. VOUCHER NO. | b. D.O. SYMBOL | c. MONTH & YEAR

b. TOTAL VERIFIED CORRECT FOR CHARGE TO APPROPRIATION

*Certifier's Initials:*

16. THIS VOUCHER IS CERTIFIED CORRECT AND PROPER FOR PAYMENT

AUTHORIZED CERTIFYING OFFICIAL SIGN HERE ▶ | DATE

c. APPLIED TO TRAVEL ADVANCE *(Appropriation symbol)*:

d. NET TO TRAVELER ▶ $749.96

18. ACCOUNTING CLASSIFICATION

Leave Blank

1012-116 NSN 7540-00-634-4180 **STANDARD FORM 1012** (REV. 10-77)
Prescribed by GSA, FPMR (41 CFR) 101-7

Save Data Only | Clear Form | Save Data & Form

**SCHEDULE OF EXPENSES AND AMOUNTS CLAIMED**

**INSTRUCTIONS TO TRAVELER** *(Unlisted items are self-explanatory)*

Col. (c) If the voucher includes per diem allowances for members of employee's immediate family, show members' names, ages, and relationship to employee and marital status of children (unless information is shown on the travel authorization.)

Complete only for actual expense travel:
- Col. (d) thru (g) — Show amount incurred for each meal, including tax, tips, and daily total meal cost.
- (h) — Show expenses, such as: laundry, cleaning and pressing of clothes, tips to bellboys, porters, etc. (other than for meals).
- (i) — Complete for per diem and actual expense travel.
- (j) — Show total subsistence expense incurred for actual expense travel.
- (m) — Show per diem amount, limited to maximum rate, or if travel on actual expense, show the lesser of the amount from col. (j) or maximum rate.
- (n) — Show expenses, such as: taxi/limousine fares, air fare (if purchased with cash), local or long distance telephone calls for Government business, car rental, relocation other than subsistence, etc.

Complete this information if this is a continuation sheet. PAGE 1 OF 1 PAGES

TRAVEL AUTHORIZATION NO.

TRAVELER'S LAST NAME: Inspector

| DATE 2009 (a) | TIME (Hour and am/pm) (b) | DESCRIPTION (Departure/arrival city, per diem computation, or other explanations of expense) (c) | ITEMIZED SUBSISTENCE EXPENSES — MEALS: BREAK-FAST (d) | LUNCH (e) | DINNER (f) | TOTAL (g) | MISCEL-LANEOUS SUBSIS TENCE (h) | LODGING (i) | TOTAL SUBSISTENCE EXPENSE (j) | MILEAGE RATE: 0.6 ¢ NO. OF MILES (k) | AMOUNT CLAIMED: MILEAGE (l) | SUBSISTENCE (m) | OTHER (n) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 02/09 | | LV: Residence via POV<br>AR: Airport | | | | | | | | 54 | $0.31 | | |
| | | LV: (Your airport city) via WN<br>AR: Drury Inn via taxi | | | | | | | | | | | $35.00 |
| | | Drury Inn<br>Hotel tax (other) | | | $36.75 | $36.75 | | $89.00 | $125.75 | | | $125.75 | $13.35 |
| 02/10 | | Drury Inn<br>Hotel tax (other) | | | $49.00 | $49.00 | | $89.00 | $138.00 | | | $138.00 | $13.35 |
| 02/11 | | Drury Inn<br>Hotel tax (other) | | | $49.00 | $49.00 | | $89.00 | $138.00 | | | $138.00 | $13.35 |
| 02/12 | | Drury Inn<br>Hotel tax (other) | | | $49.00 | $49.00 | | $89.00 | $138.00 | | | $138.00 | $13.35 |
| 02/13 | | LV: Location of class city<br>AR: Airport via taxi | | | $36.75 | $36.75 | | | $36.75 | | | $36.75 | $35.00 |
| | | Airport to Residence<br>via POV | | | | | | | | 54 | $0.31 | | |
| | | Airport Parking<br>5 days @ $10/day | | | | | | | | | | | $50.00 |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | SUBTOTALS ▶ | | $0.61 | $576.50 | $173.40 |
| | | | | | | | | | TOTALS ▶ | | $0.61 | $576.50 | $173.40 |

***If additional space is required, continue on another SF 1012-A BACK. leaving the front blank.***

In compliance with the Privacy Act of 1974, the following information is provided: Solicitation of the information on this form is authorized by 5 U.S.C. Chap. 57 as implemented by the Federal Travel Regulation (FPMR 101 7), E.O. 11609 of July 22, 1971, E.O. 11012 of March 27, 1962, E.O. 9397 of November 22, 1943, and 26 U.S.C. 6011(b) and 6109. The primary purpose of the requested information is to determine payment or reimbursement to eligible individuals for allowable travel and/or relocation expenses incurred under appropriate administrative authorization and to record and maintain costs of such reimbursements to the Government. The information will be used by officers and employees who have a need for the information in the performance of their official duties. The information may be disclosed to appropriate Federal, State, local, or foreign agencies, when relevant to civil, criminal, or regulatory investigations or prosecutions, or when pursuant to a requirement by this agency in connection with the hiring or firing of an employee, the issuance of a security clearance, or investigations of the performance of official duty while in Government service. Your Social Security Account Number (SSN) is solicited under the authority of the Internal Revenue Code (26 U.S.C. 6011(b) and 6109) and E.O. 9397, November 22, 1943, for use as a tax payer and/or employee identification number; disclosure is MANDATORY on vouchers claiming travel and/or relocation allowance expense reimbursement which is, or may be, taxable income. Disclosure of your SSN and other requested information is voluntary in all other instances; however, failure to provide the information (other than SSN) required to support the claim may result in delay or loss of reimbursement.

*Enter grand total of columns (l), (m) and (n), below and in item 13 on the front of this form.*

**TOTAL AMOUNT CLAIMED ▶ $749.96**

"U.S.P.O.: 1987 - 181-247/60082

STANDARD FORM 1012 BACK (10-77)

## Inspection Requirements to Qualify for TTSD Training Reimbursement

FRA allocates funds cover training and travel expenses for state inspectors involved in the FRA State Participation Program. FRA requires State inspectors to perform a minimum of 50 inspection days per year. State managers who also inspect are required to perform 30 inspection days per year. An inspection day is any day an inspector files an inspection report. State managers, supervisors, and inspectors are credited for an inspection day when shown as an accompanying inspector. Inspectors involved in OJT should include their ID numbers on all inspection reports filed by the training inspector in order to receive inspection day credit. State managers should be monitoring their inspectors' inspection days to ensure the minimum standard is met.

Inspectors who do not meet the minimum inspection day requirement are not eligible for federally-funded TTSD training during the following calendar year. Newly hired inspectors are not subject to the policy if they could not reasonably be expected to reach 50 inspection days. There are legitimate personal and logistical reasons for waiving the minimum inspection days standard. Personal illness, injury or other reasons for an exemption from the performance standard will be considered by the Associate Administrator for Safety. State managers will be notified in January of any inspector failing to meet the work standard during the previous calendar year. The notification will explain the exemption process.

## Attending Assigned Training Classes

Class size is limited in order to maximize inspector learning potential. Size restrictions and the fact that each discipline offers a variety of training subjects require that inspectors attend their scheduled classes.

Below are five different scenarios identified as reasons for not attending an TTSD training. The first four are acceptable reasons for failure to attend assigned training. The fifth reason is not acceptable.

1. Family or personal schedule conflicts noted well in advance of the training - acceptable
2. Work-related conflict noted well in advance of the training - acceptable
3. Failure to show because of family/personal emergency - acceptable
4. Failure to show because of unavoidable work related conflict - acceptable
5. Failure to show, no excuse - not acceptable.

Federal Railroad Administration inspectors are required to adhere to standards of professional conduct. The same standards of professional conduct apply to State inspectors. One such standard is that all inspectors must attend FRA-scheduled training classes to maintain technical proficiency within their disciplines. Inspectors may be excused from a class and rescheduled for a different class for legitimate personal or work-related reasons. Inspectors must secure advance approval from their State Manager and from the TTSD Staff Director to reschedule training. Failure to attend a scheduled training class without providing prior notice is considered an unexcused absence.

FRA's training policy states that a State inspector with two unexcused absences within a three-year period will face suspension of his or her inspector certification. A suspension is defined as the temporary removal of FRA inspection authority, including the authority to investigate accidents and incidents and to represent FRA at railroad or community events.

Following a suspension, an inspector will receive instruction and counseling (retraining) which, if successful, will ordinarily lead to a lifting of the suspension. The duration of retraining could be as short as one week or as long as six months, depending on the training needs of the inspector. Retraining is complete when the inspector performs job duties as required by the FRA Field Training Manual and Orientation Guide. The regional specialist, in consultation with the State manager and the regional administrator, will a make a determination when retraining has been successfully completed.

**Curriculum**

The annual curriculum offered by TTSD for each discipline may include fundamental, recurrency, accident investigation and subject-specific courses to address safety program needs. Fundamentals training is designed for newly-hired inspectors. The number of fundamentals classes available to the new inspector may vary my discipline. Recurrency courses provide an overview of the knowledge and skills required for proficiency in the five technical disciplines. Subject-specific courses may address emerging safety problems or new regulations and procedures.

# Chapter 17

# Partner Organizations

# Partner Organizations

**National Transportation Safety Board -** The National Transportation Safety Board (NTSB) is an independent Federal agency charged by Congress with investigating railroad accidents involving passenger trains or any train accident that results in at least one fatality or major property damage. NTSB also investigates releases of hazardous materials in all forms of transportation and selected railroad accidents that involve problems of a recurring nature.

NTSB derives its authority from Title 49 of the United States Code, Chapter 11. Rules governing its operation are located in Chapter 7, Title 49 of the Code of Federal Regulations. It is not part of DOT or affiliated with any of the modal agencies. NTSB investigators investigate significant accidents and develop factual records and safety recommendations (See www.ntsb.gov for more information).

FRA has particular guidelines investigators should follow when interacting with NTSB. FRA may investigate accidents either concurrently or in conjunction with NTSB, so it is important to understand our relationship with them. If NTSB accident investigators appear on the scene during an investigation, State and FRA representatives should offer full cooperation, keeping the regional administrator advised of all developments. NTSB investigations have priority over FRA investigations, but NTSB does not have the authority to preempt FRA.

The following are key points of FRA's memorandum of understanding with NTSB, first effective May 1975:

- NTSB has responsibility for determining probable cause.
- FRA has responsibility for investigating accidents to determine compliance with the existing rules, and necessity to amend existing rules or to issue new ones.
- Notification of all accidents reported to NTSB will be provided to FRA by means of a daily written morning report, or more frequently if warranted on a case-by-case basis.
- NTSB and FRA may jointly participate in investigating the same accident. In such cases, the NTSB will assume control of activities during the on-scene investigation, including statements to the media.
- Upon completion of the on-scene investigation, appropriate responsibilities will revert to the individual agencies.
- Both agencies are to have full access to all factual data.
- Either party may withdraw from participation at any stage of the investigation.
- NTSB will be responsible for the public release of the final report resulting from joint investigative efforts.
- FRA will provide copies of all FRA investigative reports to NTSB, and vice versa.
- Advance copies of investigative reports will be provided by NTSB at least 5 days before final issuance.
- All operational interface between NTSB and FRA will be the responsibility of the Associate Administrator for Safety, or his/her designee. The key is to keep FRA regional management fully informed.

**Association of American Railroads -** The Association of American Railroads (AAR) is a business trade association representing major freight railroads in the United States, Canada, and Mexico, as well as Amtrak. Based in Washington, DC, the AAR is focused on representing railroad interests to Congressional and government leaders. AAR subsidiary organizations, the Transportation Technology Center, Inc., and Railinc, identify and develop improvements in railroad technology. The AAR Web site contains information on current railroad industry topics and concerns and includes

national and State-specific railroad operations data.

**American Short Line and Regional Railroad Association -** The American Short Line and Regional Railroad Association (ASLRRA) is a nonprofit trade association that represents the interests of its more than 400 short line and regional railroad members in legislative and regulatory matters. The ASLRAA Web site, www.aslrra.org, has information about member services and short line industry news and publications.

**Transportation Security Administration -** The Transportation Security Administration (TSA) was created as part of the Aviation and Transportation Security Act signed into law on November 19, 2001. TSA was originally in the Department of Transportation, which was moved to the Department of Homeland Security in March 2003.

One aspect of the TSA mission is to protect the nation's railroad passengers, employees, and properties. Fulfilling this mission requires focus on two significant parts of the nation's transportation system: commuter rail operations and intercity passenger rail. TSA is developing a National Passenger Rail Program focusing on prevention, response, recovery, restoration of services, and restoring public confidence in the event of an incident. For information about rail security and the TSA rail inspection programs, see www.tsa.gov.

**Occupational Safety and Health Administration -** On March 14, 1978, FRA published a Federal Register notice (Vol. 43, No. 50, p. 10583) preempting Occupational Safety and Health Administration (OSHA) from applying their regulations in areas FRA categorizes, or defines, as “railroad operations,” including preemption from conducting certain employee fatality investigations. FRA recognizes, however, that OSHA currently is not precluded from exercising jurisdiction with respect to conditions not rooted in railroad operations; nor so closely related to railroad operations as to require regulations by FRA in the interest of controlling predominant operational hazards.

FRA also recognizes that OSHA investigators have specific expertise in some areas, and conducting concurrent fatality investigations often benefits both agencies. FRA confers jurisdiction to OSHA for the following:

- Means of egress from fixed facilities
- General office environments
- Confined space ventilation and safe work procedures
- Personal protection equipment
- Blood-borne pathogens.

A railroad is required by FRA regulations at 49 CFR Part 225 to use the current FRA Guide for Preparing Accident/Incident Reports when preparing its monthly report. The instructions and interpretations contained in this publication are provided to assist railroads in meeting this obligation.

The Occupational Safety and Health Act of 1970 requires all employers, including railroads, to “maintain accurate records of, and to make periodic reports on, work-related deaths, injuries and illnesses”. At the time of its issuance, railroads were subject to the Accident Reports Act of 1910, which states: "It shall be the duty of every common carrier engaged in interstate or foreign commerce by railroad to make to the Secretary of Transportation a monthly report, under oath, of all collisions, derailments, or other accidents resulting in death or injury to any person or damage to equipment or roadbed, arising from the operation of such railroad. These reports shall state the nature and causes thereof and the circumstances connected therewith.”

In accordance with an agreement between the Department of Labor (DOL) and the Department of Transportation (DOT), railroads continue to report to DOT, but under modified recordkeeping rules. These rules conform to the extent practicable to those issued by OSHA and are administered by FRA under 49 CFR Part 225.

The Occupational Safety and Health Act of 1970 also requires the Secretary of Labor to issue rules to develop and maintain an effective program of collection, compilation, and analysis of occupational safety and health statistics. The injury and illness records required by FRA's accident/ incident reporting rule contribute to the national database on workplace safety, maintained by DOL. In order to have a database that allows accurate comparison between industries, the rules that FRA uses must be modified whenever OSHA makes significant changes that affect the number and types of work related deaths, injuries, and illnesses for which records are to be maintained, and the manner in which these are be classified. The FRA Guide for Preparing Accident/Incident Reports explains railroad employee casualty reporting requirements.

**Operation Lifesaver -** Operation Lifesaver is a nonprofit, international continuing public education program established in 1972 to end collisions, deaths, and injuries at places where roadways cross train tracks, and on railroad rights-of-way. Operation Lifesaver programs are sponsored cooperatively by the nation's railroads, highway safety organizations, and Federal, State, and local government agencies. For information about Operation Lifesaver, see www.oli.org.

**Standing Committee on Rail Transportation -** The Standing Committee on Rail Transportation (SCORT) is a modal committee of the American Association of State Highway and Transportation Officials (AASHTO). AASHTO is comprised of State transportation departments or agencies and include agencies in Puerto Rico and the District of Columbia in which the official highway responsibility for that State or Territory is lodged. The United States Department of Transportation is an ex-officio member.

SCORT's mission is as follows: review, evaluate, and recommend transportation legislation; exchange technical information and policy positions on railroad matters; evaluate, comment upon, and suggest revision to Federal regulations; reach a common viewpoint of the States on rail policies and problems; gather information and investigate railroad concerns; provide technical expertise and management training for State railroad connected agencies; provide public information on rail transportation matters; cooperate and coordinate activities with transportation users and the railroad industry; take a forward-looking view of and disseminate rail progress; and encourage research necessary to reach these goals. See http://rail.transportation.org for more information on SCORT.

**Federal Transit Administration -** The Federal Transit Administration (FTA) provides financial and technical assistance to local public transit systems, including buses, subways, light rail, commuter rail, trolleys and ferries. FTA also oversees safety measures and helps develop next-generation technology research.

Transit services supported by FTA span many groups and provide wide-ranging benefits. Since 1964, FTA has partnered with state and local governments to create and enhance public transportation systems, investing more than $10 billion annually to support and expand public rail, bus, trolley, ferry and other transit services. That investment has helped modernize public transportation and extended service into small cities and rural communities that previously lacked transit options.

An agency within the U.S. Department of Transportation (DOT), FTA is headed by an administrator appointed by the president of the United States. FTA is one of DOT's 10 modes of transportation and is run by a headquarters in Washington, D.C. as well as 10 regional offices that assist transit agencies in all states and U.S. territories.

# Appendices

# APPENDIX 1

# STATE PARTICIPATION AGREEMENT

## Guidelines for Completing the Agreement and Supplement for State Participation in the Federal Railroad Safety Program

The Federal Railroad Administration's (FRA) State Participation Program now requires that each State become a party to a multi-year agreement with periodic supplements to update relevant information. The attached packet of information contains all the necessary documents to be completed by your State Coordinator for participation in this railroad safety program. The following attached documents will comprise a completed application for the State Participation Program.

- State Participation Agreement
- Exhibit 1 – Opinion of Counsel
- Exhibit 2 – Schedule of Current Participation
- Exhibit 2A – Revised Schedule of Current Participation
- Exhibit 3 – State Railroad Safety Technical Training Funding Agreement

### State Participation Agreement

This multi-year agreement sets out the general obligations of both the FRA and the participating State with respect to investigative and enforcement activity concerning Federal Rail Safety Laws and regulations. Participating States (or commonwealths) are to print or type the names of the State itself and the participating State agency on the last page of the agreement. The appropriate party should also print or type his/her name and title, as well as provide a signature. FRA will subsequently sign after completing its review of the State's application.

### Exhibit 1 – Opinion of Counsel

The Federal Regulations governing the State Participation Program require a statement that the participating State agency has jurisdiction over safety practices regarding railroads, and the authority and capability to conduct investigative activity in this area. It is therefore required that the State or commonwealth provide an opinion of counsel stating this information. Please enclose this information as "Exhibit 1". (Other formats of this exhibit, meeting this intent, are acceptable.)

### Exhibit 2 – Schedule of Current Participation

This exhibit to the formal agreement provides information relevant to the conduct of this program. This form is similar to an application requiring the State agency to fill in the appropriate information. This sheet should be filled out at the inception of the agreement.

### Exhibit 2A – Revised Schedule of Current Participation

This exhibit allows the State agency to update the information listed above when levels or areas of participation change. As noted in the agreement, the use of this Revised Schedule is only triggered when there are changes. If there are yearly changes, annual updates will be required. The Revised Schedule will be signed by an authorized employee of the State agency.

### Exhibit 3 – State Railroad Safety Technical Training and Funding Agreement

This exhibit is the agreement between FRA and the State agency regarding reimbursement and other costs associated with inspector training. This form should be submitted on a Federal Fiscal Year basis, preferably before October 1, the start of the Fiscal year.

**FEDERAL RAILROAD SAFETY PROGRAM**
**STATE PARTICIPATION AGREEMENT**

**WHEREAS**, the Federal Railroad Safety Laws authorize State agencies to participate with the Department of Transportation, Federal Railroad Administration (FRA) in investigative and surveillance activity concerning rail safety and to enforce those Laws under specified conditions.

**WHEREAS**, FRA has adopted regulations to facilitate such participation, published at Part 212 of Title 49, Code of Federal Regulations, which regulations shall be deemed an integral part of this Agreement.

**WHEREAS**, the undersigned State agency has the jurisdiction and legal authority to conduct the activities required of a participating State Agency, as attested to by the opinion of counsel for the State Agency appended as Exhibit 1 to this Agreement.

**WHEREAS**, the undersigned State Agency has the capability and desire to participate in investigative and enforcement activities concerning rail safety laws regulations and has requested to participate in such activities pursuant to authority conferred by FRA.

**NOW, THEREFORE**, FRA and the undersigned State Agency (hereinafter "the parties" hereby agree and represent that:

1. They will singly and jointly adhere to the principles for the conduct of State participation in investigative, surveillance, and enforcement activities that are enunciated in 49 CFR Part 212 (State Safety Participation Regulations).

2. They will singly and jointly conduct investigative, surveillance and, enforcement activities within the State, under the Federal railroad Safety Laws; provided, exercise of conduct investigative, surveillance and, enforcement authority under this Agreement by the State shall be limited to the enforcement activities and disciplines specified in Exhibit 2, as such Exhibit shall be amended as necessary (Exhibit 2A) by the State Agency and accepted by the Associate Administrator, Office of Safety, on behalf of FRA.

3. The State Agency has independent authority, pursuant to 45 U.S.C. 436 (a), to bring an enforcement action or an action for injunctive relief when the FRA fails to act. Any exercise of such authority will be undertaken consistent 49 CFR Part 212.115.

4. Exhibit 2 of this Agreement shall consist of a Schedule of Current Participation, which shall be completed upon initiation of this Agreement. Thereafter, the State Agency shall proffer for acceptance by FRA a Revised Schedule of Participation, Exhibit 2A, when there are changes affecting the level or areas of participation in the Federal program. (If levels or areas of participation change yearly, annual updates will be required.) The Schedule shall be accepted by the Associate Administrator, Office of Safety, on behalf of FRA. The Schedule shall specify:

   (a) The Federal laws and regulations for which State Agency authority is currently conferred.

   (b) A description by title and organizational element(s), of State Agency administrative officers, offices and subdivisions responsible for authorization and guidance of State program activities.

   (c) Any established arrangements for coverage of inspection territories through routine investigative and surveillance activities (which shall be without prejudice to the right of the State Agency or FRA to conduct otherwise authorized activities throughout the State.) These arrangements shall include whether the State undertakes to utilize the National Inspection Plan as a basis for planning inspection activities.

(d) The progress status:

(1) Developmental – Whether the State is participating in the program as a trial measure or in some other temporary manner.
(2) Active – Whether the State's level of participation requires that fifty percent or more of a certified inspector's time is allotted for Federal enforcement.

(3) Inactive - Whether the State's level of participation requires that less than fifty percent of a certified inspector's time is allotted for Federal enforcement.

5. Consistent with its responsibilities and available resources, FRA will bear the cost of providing classroom training to the State staff at FRA sanctioned training courses. FRA will also provide on-the-job training/familiarization to State inspector candidates meeting the requirements for inspector rank. FRA may assist in training apprentice inspectors by letter agreement between the State Agency and the regional administrator for the region in which the State is situated.

(a) FRA will not provide training to any inspector or apprentice inspector who will devote less than one-half of a work year annually to investigative and surveillance activities under the Federal Railroad Safety Laws.

(b) FRA will not provide on-the-job training if FRA is unable to secure access to railroad facilities in other States for purposes of on-the-job training.

6. State inspectors authorized to participate in investigative and surveillance activities under this Agreement shall be individually recognized as certified, upon completion of initial training and familiarization, by letter to the State Agency program manager from the Regional Administrator for the region in which the State is situated. A copy of such letter shall be provided to the State Participation Program Manager.

7. State Agencies shall set forth an estimated level of investigative and surveillance effort to be expended on Federal enforcement issues by technical discipline, as defined in 49 CFR Part 212 Subpart C and technical bulletins issued periodically by FRA, revising duties of specified inspectors.

8. FRA and State Agency investigative and surveillance activities, and recommended enforcement actions, shall, to the maximum extent possible, be uniform and consistent with the actions of all participants in the Federal Railroad Safety Program. In furtherance of this objective, FRA will consult with participating States regarding compliance policy; and FRA will provide guidance through enforcement manuals, technical bulletins, and other means.

9. This Agreement does not create any rights or obligations enforceable by third parties. Nothing in this Agreement binds the State Agency or the FRA to take any action inconsistent with applicable law or to obligate or outlay funds unless permitted by applicable law.

10. This Agreement will remain in effect until cancelled, terminated or modified in accordance with the following procedures:

(a) Whenever possible, cancellation shall be preceded by thirty (30) days written notice.

(b) Modifications to this Agreement may be proposed by either party, but do not become effective until reduced to writing and executed by both.

11. The State Agency shall provide prompt written notification to FRA in the event there is a change involving its jurisdiction or legal authority as reflected in Exhibit 1 to this Agreement. FRA shall provide the State Agency with prompt written notice of any change in applicable Federal law or regulations affecting this Agreement.

IN WITNESS of these undertakings, the undersigned authorized officers of the parties execute this Agreement.

**FOR THE STATE OR COMMONWEALTH OF** _____

**State Agency:** _____

**By:** _____

**Title:** _____

**Date:** _____

**FOR THE FEDERAL RAILROAD ADMINISTRATION**

**By:** _____
**Associate Administrator for Safety**

**Date:** _____

**Exhibit 1**
**FEDERAL RAILROAD SAFETY PROGRAM**
**OPINION OF COUNSEL**

I, _____, acting as Counsel for the State agency, this _____ day of _____, 20_____, do certify the following:

(1) _____, (State Agency) has the legal jurisdiction over safety practices applicable to railroad facilities, equipment, rolling stock and operations within the State of _____-_____;

(2) _____, (State Agency) has the legal authority to conduct investigative and surveillance activities in connection with the rules, regulations, orders and standards issued by the Federal Railroad Administrator per 49 CFR Part 212; and

(3) State funds will be used for the purpose of carrying out investigative and surveillance activities prescribed by the Federal Railroad Administrator per 49 CFR Part 212.

_____
Counsel for the State Agency

**Exhibit 2**
**FEDERAL RAILROAD SAFETY PROGRAM**
**SCHEDULE OF CURRENT PARTICIPATION**

Date_____

1. Description of the Agency Organization

(Guidance for completing this section)
Please list the administrative officers, offices and subdivisions of the State Agency responsible for participation in this Federal program. (Note: list by title and organizational element(s))

2. Existing Railroad Safety Programs

(Guidance for completing this section)
Please describe the existing rail safety program. Please list areas where the State has enacted railroad safety rules or regulations (E.g. track clearances, grade crossings, etc.) and the number of rail safety inspectors active in the State.

3. Certified Railroad Safety Inspectors
(Guidance for completing this section)
Please list the inspectors authorized by the State to participate in this Federal Program, as certified inspectors or trainees.

4. The Inspection Arrangements

(Guidance for completing this section)
Describe any established procedures you have for the coverage of inspection territories while participating in the Federal program.

5. The Program Status

(Guidance for completing this section)
Please check one of the following:

_____ Developmental

_____ Active

_____ Inactive

6. The Safety Areas/Disciplines for Surveillance

(Guidance for completing this section)
Please list the safety areas/disciplines for surveillance in which your agency will be engaged. (Note: Safety disciplines are defined in Part 212 Subpart C and technical bulletins issued periodically by FRA.) Also list the number of inspectors assigned to a particular discipline and the percentage of time they will spend on that discipline.

| **Discipline** | **# of Inspectors** | **% of Time** |
|---|---|---|
| ___ Track | _____ | _____ |
| ___ Motive Power & Equipment | _____ | _____ |
| ___ Signal & Train Control | _____ | _____ |
| ___ Operating Practices | _____ | _____ |
| ___ Hazardous Materials | _____ | _____ |

7. State Program Coordinator

_____, _____ has
(Name) (Title)
been designated as the State participation program coordinator. He/She maintains offices at

_____

_____

_____
(Full Address)

His/Her telephone number is _____

**CERTIFICATION**

I, _____, acting as Attorney for the State or Commonwealth agency, this _____ day of _____, do certify that I have examined the Training Agreement and find that acceptance by the State or Commonwealth agency has been authorized, and that the execution thereof is proper and in accordance with the laws of the State or Commonwealth of _____, and that in my opinion, the State or Commonwealth agency has legal authority to participate in training activities in accordance with the terms thereof.

_____

Attorney for the State or
Commonwealth Agency

# Appendix 2

# Revised Schedule of Current Participation

Exhibit 2A

**FEDERAL RAILROAD SAFETY PROGRAM**
**REVISED SCHEDULE OF CURRENT PARTICIPATION**

The Federal Railroad Administration and the State of _____having entered into an agreement dated_____concerning the State's participation in the Federal Rail Safety Program. The State of _____does hereby revise the Schedule of Current Participation as follows:

1. Changes in the Description of the Agency Organization

**[Guidance for completing this section]** - Please update the list of administrative officers, offices and subdivisions of the State agency responsible for participation in this Federal Program. (Note: list by title and organizational element(s)

2. Changes in the State Railroad Safety Program

**[Guidance for completing this section] -** If applicable, please note that the responsibilities, functions, and activities of the State agency have been altered, regarding railroad safety. Please list the new responsibilities.

3. Changes in the Certified Railroad Safety Inspectors

**[Guidance for completing this section] -** Please update the list of inspectors authorized by the State to participate in this Federal Program, as certified inspectors or trainees.

4. Changes in Inspection Arrangements

**[Guidance for completing this section] -** If applicable, please describe any changes affecting any of the established procedures you have for the coverage of inspection territories while participating in this Federal Program.

5. The Program Status

**[Guidance for completing this section] -** If program status has changed, please check one of the following:

_____Developmental

_____Active

_____Inactive

6. Changes in the Safety Areas/Disciplines for Surveillance

**[Guidance for completing this section]** - If applicable, please list any changes in the safety areas/disciplines for surveillance, in which your agency will be engaged. (Note: Safety disciplines are defined in Part 212 Subpart C and technical bulletin issued periodically by FRA).

| **Discipline** | **# of Inspectors** | **% of Inspector's Time** |
|---|---|---|
| **_____Track** | **____Inspectors** | **___%** |
| **_____Motive Power and Equipment** | **____Inspectors** | **___%** |
| **_____Signal and Train Control** | **____Inspectors** | **___%** |
| **_____Operating Practices** | **____Inspectors** | **___%** |
| **_____Hazardous Materials** | **____Inspectors** | **___%** |

7. State Program Coordinator

**[Guidance for completing this section]** - If any relevant information regarding the State Program Director has changed, please indicate by filling in the following information.

_____, _____, has been designated the
**(Name)** **(Title)**
State Participation Program Coordinator. He/She maintains offices at:

**(Full Address)**

His/Her telephone number is_____.

8. Other Relevant Information

[**Guidance for completing this section]** – This space is intended to provide the State with an opportunity to update any relevant changes that would affect this program including, but not limited to, changes in resources, regulations, or State only safety disciplines.

This revision shall become Exhibit 2A to the agreement mentioned above. It shall become effective _____.

Submitted this _____ day of _____ by

Name_____.

Title_____.

State Agency_____.

# Appendix 3

# Inspector Core Competencies

| CORE COMPETENCY | COMPETENCY DEFINITION | KEY CHARACTERISTICS |
|---|---|---|
| **ORAL COMMUNICATION** | Listens and communicates in a manner that mitigates risk and enhances railroad safety. | **Basic** Skill in oral communication. Conducts interviews. Demonstrates effective listening skills by listening carefully to identify relevant and important information. Expresses ideas and facts effectively. Presents negative findings in a positive manner.<br><br>**Advanced** Makes clear and convincing presentations. Facilitates meetings effectively. Practices active listening. |
| **WRITTEN COMMUNICATION** | Writes factual information that accurately communicates safety inspection circumstances. | **Basic** Skill in written communication. Writes in a manner consistent with FRA policy and guidelines. Uses appropriate terminology. Completes forms thoroughly and accurately. Prepares reports by organizing and presenting facts. Explains conclusions in a succinct, persuasive, grammatically correct, and organized manner. Writes legally sufficient documents in accordance with FRA policy.<br><br>**Advanced** Writes succinct, factual information that accurately communicates safety inspection circumstances. Writes recommendations based upon analysis of the facts. |
| **PROBLEM SOLVING** | Applies analytical and investigative techniques. | **Basic** Arrives at appropriate responses to situations and problems. Evaluates and chooses the best alternative. Understands when and how to request Regional and/or HQ support. Understands and applies progressive remedy concepts. Demonstrates curiosity and notices problems or inconsistencies in behavior or situations. Notices problems that occur consistently and observes critically. Exercises judgment to understand what is important. Asks the right questions. Understands the magnitude of situations (mountain versus molehill).<br><br>**Advanced** Studies and analyzes problems systematically and efficiently. Cuts through details and complexity to identify root causes and draw sound conclusions. |

| CORE COMPETENCY | COMPETENCY DEFINITION | KEY CHARACTERISTICS |
|---|---|---|
| **DATA ANALYSIS** | Retrieves and uses data and information that is essential for identifying safety risks and violations. | **Basic** Has familiarity with and knows how to access various job-related data and information. Chooses appropriate sources of information. Knows where to look or whom to contact in order to get information. Uses sound judgment to analyze data. Uses data to support findings and conclusions. Takes appropriate action based on data. Recognizes that documentation may be used as legal evidence and includes sufficient facts to support conclusions. Filters and sorts information and data. Discriminates between more and less relevant information. Avoids tendency to over-analyze data. |
| **TECHNOLOGY UTILIZATION** | Uses technological tools and resources. | **Basic** ABILITY TO: Obtain assistance from IT personnel. Read, compose, and send e-mail. Access FRA and other data sources. Use the Internet and World Wide Web. Use computer tools to prepare reports and memos. Enter inspection information into the computer and retrieve it when needed.<br><br>**Advanced** ABILITY TO: Demonstrate familiarity and comfort with computer resources. Use computer to prepare and give presentations. |
| **PARTNERING** | Works with others, both formally on teams and informally through networking, to carry out FRA duties and responsibilities. | **Basic** Shares ideas, information, and best practices with other inspectors. Knows own limitations and when to ask for help. Understands the importance of networking and networks effectively. Works congenially and cooperatively with teams. Works well as a team member. Willingly works for team leader.<br><br>**Advanced** Leads inspections/investigations. Handles team leadership role effectively. |
| **INTERPERSONAL SKILLS** | Exhibits proficiency in working with people, both within and outside the FRA. | **Basic** Demonstrates multi-party conflict management skills. Demonstrates tact, compassion and respect for others in a diverse work environment.<br><br>**Advanced** Maintains a healthy atmosphere in adversarial situations. Facilitates, negotiates, and mediates when interests of parties diverge. |

| CORE COMPETENCY | COMPETENCY DEFINITION | KEY CHARACTERISTICS |
|---|---|---|
| **SELF-DIRECTION** | Plans, manages and works in self-directed manner to accomplish FRA priorities and ensures and promotes railroad safety. | **Basic** Independently carries out all required work processes and procedures. Chooses appropriate work methods (e.g., phone conversation versus personal interview, etc.). Serves as a safety promoter for assigned district. Makes prudent decisions about best way to use time and other resources. Prepares and maintains good records. Chooses, establishes, plans and implements an appropriate course of action. Demonstrates follow-through and persistence (e.g., work on a job until it is complete and go back to railroad/shipper to ensure corrections have been made). Ensures accuracy and completeness of work by double checking and paying close attention to detail. Submits timely, accurate, high quality documentation and paperwork. Works on several projects at once and stays focused on critical tasks. Decides independently what needs to be done (to ensure safety) and takes appropriate action. |
| **CONTINUAL LEARNING** | Grasps the essence of new information and masters new technical and business knowledge. | **Basic** Aware of available work resources and job aids. Understands how to apply particular resources and job aids in the workplace in order to maximize work efficiency and effectiveness. Understands FRA policies and regulations and keeps up to date with changes as they are communicated. Adapts behavior and work methods based on changes in policy and procedures. Accepts and applies constructive feedback from peers and supervisors. Monitors changes in regulations and understands how to apply changes to day-to-day duties and responsibilities. Seeks feedback from others and opportunities to master new skills.<br><br>**Advanced** Recognizes own strengths and weaknesses to pursue self-development. |

| CORE COMPETENCY | COMPETENCY DEFINITION | KEY CHARACTERISTICS |
|---|---|---|
| **FLEXIBILITY** | Deals with changing schedules, priorities, and situations. | **Basic** Deals effectively with spontaneous situations. Balances work needs with personal convenience or comfort, i.e., inspects despite inclement weather. Personal feelings do not interfere with policy changes. |
| **DECISIVENESS** | Exercises good judgment by making sound and well-informed decisions. | **Basic** Evaluates and chooses best alternative. Takes appropriate action based on data. Demonstrates decisiveness and the ability to intervene immediately to respond to dangerous situations. Stays focused and on task under pressure. |
| **INTEGRITY/ HONESTY** | Conducts self with a high degree of professionalism at all times, in ways that reflect positively on FRA and contribute to the accomplishment of the Agency's mission. | **Basic** Demonstrates the highest level of safety awareness/practice and leads by example. Inspects and observes with minimal disruption. Establishes rapport. Interfaces with railroad labor/management and/or shippers effectively. Balances regulatory, safety assurance and compliance roles. Maintains objectivity; personal relationships do not interfere with job duties and responsibilities. Maintains confidentiality, where practical and appropriate. Establishes atmosphere of trust. Avoids too close or too familiar relationships with railroad staff, shippers, etc. Communicates candidly but effectively. |
| **CUSTOMER SERVICE** | Balances the interests of a variety of customers. | **Basic** Readily readjusts priorities to respond to pressing and changing customer demands. Anticipates and meets the needs of customers and is committed to continuous improvement of services. Demonstrates familiarity of Agency mission in conducting duties. |
| **ORGANIZATIONAL AWARENESS** | Identifies and keeps up to date on key policies and trends that affect the organization and its mission. | **Basic:** Knowledge of the FRA, its history, structure and mission. Knowledge of the responsibilities as a Federal employee. Knowledge of one's role as a Federal inspector. Knowledge of programs and benefits available. Knowledge of inspector accountability under the "chain of command." |

| CORE COMPETENCY | COMPETENCY DEFINITION | KEY CHARACTERISTICS |
|---|---|---|
| **TECHNICAL CREDIBILITY** | Understands and appropriately applies procedures, requirements, regulations, and policies related to specialized expertise. | **Basic** Knowledge of the railroad industry, including economic and operating considerations and equipment. Knowledge of the general safety and health principles and practices applicable to the railroad industry. Knowledge of railroad accident investigation techniques. General familiarity with CFR regulations pertaining to railroad safety. Understands how regulations are modified, communicated to the field, and implemented. Understands FRA discipline-specific work processes and procedures that apply to safety inspections, accident investigation, complaint investigation, railroad information audits, etc. Thorough understanding of desired results that form basis for work. Processes and procedures are results-oriented. Identifies and/or records non-compliant and other safety conditions. Understands and demonstrates basic principles of effective workplace safety inspection. Understands and demonstrates rules of evidence sufficiency requirements for situations that may require litigation. Demonstrates the same level of commitment and application of safe work practices that FRA expects of railroads (e.g., protective clothing).<br><br>Advanced Awareness and general understanding regarding how railroad practices, procedures, and technology are changing. |

| CORE COMPETENCY | COMPETENCY DEFINITION | KEY CHARACTERISTICS |
|---|---|---|
| **TECHNICAL CREDIBILITY (DISCIPLINE-SPECIFIC)** | Understands and appropriately applies procedures, requirements, regulations, and policies related to specialized expertise. | **Motive Power and Equipment** Knowledge of the design, maintenance, or inspection of various types of locomotives and freight and/or passenger equipment currently in use and their capabilities and limitations. Knowledge of the design, installation, maintenance, or testing of railroad safety appliances and power brakes, their capabilities and limitations. Knowledge of the applicable Federal laws and regulations pertaining to inspection and testing of locomotives, freight and/or passenger cars, safety appliances, and power brakes. |
| **TECHNICAL CREDIBILITY (DISCIPLINE-SPECIFIC)** | Understands and appropriately applies procedures, requirements, regulations, and policies related to specialized expertise. | **Track** Knowledge of railroad track system construction, maintenance, testing, or inspection techniques. Knowledge of the capabilities and limitations of various track system configurations. Knowledge of Federal railroad track safety standards. Knowledge of Federal railroad workplace safety standards (bridge worker safety, roadway worker protection, and roadway maintenance machines). (added 9-13-07) |
| **TECHNICAL CREDIBILITY (DISCIPLINE-SPECIFIC** | Understands and appropriately applies procedures, requirements, regulations, and policies related to specialized expertise. | **Hazardous Materials** Knowledge of the physical and chemical properties of hazardous materials (Proposed Standard). Knowledge of the construction, maintenance, and qualification of containers used to ship materials by rail (Proposed Standard). Knowledge of Federal regulations and standards governing the shipment of hazardous materials by rail, including containerization, loading, handling, documentation, and placarding. |
| **TECHNICAL CREDIBILITY (DISCIPLINE-SPECIFIC** | Understands and appropriately applies procedures, requirements, regulations, and policies related to specialized expertise. | **Signals and Train Control** Knowledge of the design, installation, maintenance, testing, or inspection of signal and train control systems, including highway-rail grade crossing warning systems, and their capabilities and limitations. Knowledge of applicable Federal laws and regulations pertaining to signaling and train control systems. Knowledge of locomotive braking systems and their relationship to an interface with train control or automatic train stop systems and braking distances. |
| **TECHNICAL CREDIBILITY (DISCIPLINE-SPECIFIC)** | Understands and appropriately applies procedures, requirements, regulations, and policies related to specialized expertise. | **Operating Practices** Knowledge of railroad operating practices, rules, and procedures especially as they relate to safety issues. Knowledge of Federal regulations and standards relating to railroad operations and requirements in such areas as hours of service, accident reporting, blue signal protection of workers, rear end markers, radio communication, railroad employee qualifications, and railroad employee testing. |

# Appendix 4

# Discipline Position Descriptions

**Railroad Safety Inspector**
**(Hazardous Materials)**

The incumbent works in a Field Office of the agency that administers and enforces Federal safety and health laws and regulations that apply to the rail transportation of hazardous materials.

**Duties:**

Serves as a Hazardous Materials Inspector monitoring regulatory compliance of hazardous materials shipments by rail within an assigned territory. In this capacity, the inspector:

Plans and carries out an itinerary of periodic inspections of the handling of hazardous materials at all rail facilities, including intermodal facilities, shipper/consignee locations, and tank car manufacturing and repair facilities within the Region and if called upon in neighboring Regions. Also, inspects rail cars, freight containers and intermodal bulk containers for compliance with applicable hazardous materials regulations, freight car equipment and safety appliance standards;

Conducts investigations of collisions, reportable derailments, unintentional releases of hazardous materials, or other accidents/incidents resulting in serious injury to person(s) or to the property of a railroad occurring on the line of any common carrier engaged in interstate transportation. Determines probable cause of accident or incident and if Federal regulations were violated. Develops comprehensive reports (e.g., accident, incident, and notices of probable violation) which outline findings and recommendations;

Investigates the method of construction, repair, testing, retesting and manufacture of specification containers used for hazardous materials so as to determine compliance with existing regulations, specifications, and the need for changes in the specifications;

Investigates railroad shippers' packaging, marking, labeling, shipping procedures and documentation of shipments of hazardous materials;

Investigates the loading/unloading, switching and movement of cars containing hazardous materials by rail, as well as the shippers/carriers' documentation of such carloadings;

Investigates and develops evidence of violation of hazardous materials regulations relating to railroads, including interviewing witnesses and examining and securing pertinent evidence and/or documentation;

Instructs trainees in job related functions to foster an easier transition phase for those trainees that have elected the hazardous materials discipline;

Inspects regional/short line railroads for compliance with the hazardous materials regulations and assist in training those railroads to enhance compliance with Federal regulations;

On request, and with the concurrence of the Regional Office, advises industry, local and State authorities, rail labor, and other interested parties regarding current hazardous materials regulations. The incumbent works jointly with the local AAR Bureau of Explosives Inspector and with other departmental representatives in promoting uniform understanding and, if necessary, enforcement of hazardous materials regulations applicable to container manufacturers, shippers/ consignees and carriers;

Observes new methods of packaging, testing, shipping and transport of hazardous materials and determines the adequacy of safety measures afforded to the public and reports the findings to the Office of Safety Assurance and Compliance with recommendations for amendments to current regulations;

Assists other Railroad Safety Inspectors within and outside of his/her assigned territory who are required to administer the hazardous materials regulations for railroad shipments in connection with other duties. Provides them with information and guidance with respect to the more complex aspects of this profession and works jointly with these inspectors in investigating, handling and reporting hazardous materials matters;

Inspects the loading/unloading and documentation procedures of shippers/consignees of hazardous materials by rail, including refineries, chemical and explosives manufacturers, freight forwarders, and import/export agents;

Inspects containers (e.g.; small packages -- boxes, barrels, drums, tank cars, IM portable tanks, and intermodal bulk containers) used in the transportation of hazardous materials to determine compliance with regulations concerning their construction, testing, and retesting requirements;

Investigates complaints from railroad employees, rail labor, Congress, or the general public regarding unsafe practices in the transportation of hazardous materials;

Determines the need for, and conducts, safety meetings and training sessions for shipper/ consignees and railroad officials and employees, including rail labor and emergency responders, regarding the requirements for properly handling hazardous materials;

Participates in Technical Resolution Committees in resolving technical interpretations with labor and management representatives which ensure regulatory consistency;

Participates in Railroad Safety Advisory Committees as a member of a collective effort with rail management and rail labor which better serves the public interest by providing a consensus-based rulemaking process;

Participates in Safety Assurance and Compliance Programs that utilize improved communications and consistent regulatory applications in targeting the root causes of systemic safety problems;

Participates in Multi-Modal Administration Safety Audits which target and resolve regulatory compliance problems with hazardous materials shipments in the intermodal arena (e.g., rail, highway, water); and,

Receives training in the inspection of new types of tank cars and shipping containers, and in the enforcement of new hazardous materials regulations, as necessary.

Performs other duties as assigned.

1. **Knowledge Required by the Position**

In addition to broad knowledge of the safety and health principles and practices applicable to all areas of the railroad industry, incumbent should have:

Thorough knowledge of economic and practical operating considerations and the safety and health concerns involved in developing handling procedures for containerization for hazardous materials being shipped by rail;

Technical knowledge of the typical reactions of a wide variety of hazardous materials to various environmental conditions (e.g.; temperature and pressure changes, contact with other materials) and safe procedures for containing or controlling fires, explosions, or leaks of these materials;

Thorough technical knowledge of the capabilities and limitations of different types of tank cars, IM and intermodal bulk containers and the various types of containers generally used to transport hazardous materials under various environmental and operating conditions;

Broad knowledge of accident/incident/complaint investigative techniques as applied to the rail transportation of hazardous materials;

Skill to apply the above knowledge to: (1) determine the best method of obtaining compliance with Federal requirements at railroad, shipper/consignee, freight forwarder, import/export agents', and tank cars manufacturing and repair facilities; and (2) investigate reportable accidents/incidents to determine probable cause and determining whether or not Federal regulations were violated;

Detailed knowledge of requirements for shippers, container manufacturers and rail carriers and be conversant with the hazardous materials regulations prescribed for air, highway, water and pipeline transportation;

Knowledge of the properties and hazards of principal hazardous commodities being shipped, the specifications of prescribed containers, the requirements for general movement of hazardous materials via rail in the Region, and carrier common operating practices and procedures in the transport of hazardous materials, and a working knowledge of shipper/consignees, import/export and freight forwarder operations;

Skill in detecting the transportation of hazardous commodities which have not been packaged, marked, labeled, placarded or documented as hazardous, or which have not been prepared and handled in accordance with the hazardous materials regulations, and,

Knowledge of when to recommend legal prosecution of violators and how to investigate an incident, interview witnesses and formally prepare and report a violation so as to enable successful prosecution.

2. **Supervisory Controls**

The supervisor assigns the inspector overall responsibility for conducting periodic inspections in the Region. In consultation with the supervisor, establishes deadlines and general parameters for other projects as they occur in the Region.

Based on knowledge of the railroads, shippers/consignees, freight forwarders, tank car manufacturing and repair facilities, and import/export brokers in the territory and on general agency policy, determines the best method of gaining compliance with safety regulations in each situation (e.g.; informal discussions, written notice, recommendations for prosecution, or issuance of an Emergency Order). Keeps other inspectors informed of any safety problems found in their areas of inspection (i.e.; track, motive power and equipment, etc.) and, in the case of interrelated safety problems, coordinates the enforcement activity with them.

Incumbent must be able to work independently and with originality and resourcefulness in obtaining information concerning the hazardous nature of commodities being shipped, packaging required and the safest means of blocking and bracing.

As a Hazardous Materials Inspector, the incumbent represents the Regional Office in all aspects of the transportation via rail of hazardous materials, and in the administration and enforcement of its safety regulations over shippers/consignees, rail carriers, tank car manufacturing and repair facilities, freight forwarders, and import/export agents. Performs inspections and investigations, takes corrective action when warranted; and keeps the supervisor informed of all practices, whether or not governed by law, which might endanger the safety of those engaged in handling hazardous materials and those who might become injured or killed from accidents/incidents such as explosions, fires and poisonings. Advises the supervisor of any need to amend existing regulations so as to better promote safety.

Reports, notices, and other work products are reviewed for their effectiveness in promoting safety in the territory. Controversial findings or actions proposed by the inspector are reviewed for possible impact on agency enforcement programs and policies by the supervisor.

3. **Guidelines**

Guidelines include: The inspectors' manuals; Emergency Response Guide (ERG); railroad equipment register; car builders encyclopedia; AAR specification for Tank Cars; National Fire Protection Guide; book of operating/safety rules issued by the applicable railroads (within the Region) and shipper/consignees; chemical dictionaries; manufacturers specifications and blueprints for tank cars and related equipment; international regulations--Canadian and IMDG requirements; and the various Federal safety and health laws and regulations that apply to railroads and shipper/consignees, especially the Hazardous Materials Transportation and the Railroad Safety Acts.

Interprets and adapts guidelines to fit a variety of problems and situations encountered at railroad, shipper/consignee, and container manufacturer facilities throughout the Region. For example - most of the Hazardous Materials regulations apply generally to all modes of transportation, and the inspector must adapt them to specific problems in the rail industry. The regulations are constantly changing in their attempt to cope with new commodities and packaging techniques coming on the market. Uses resourcefulness and initiative in deviating from established practices and in developing new techniques and methods for overcoming unusual problems.

4. **Complexity**

Investigates and attempts to resolve complex hazardous materials problems and issues in the Region. Projects are typically complicated by such factors as:

> Unknown safety and health implications or lack of appropriate inspection procedures for new or unusual packaging (e.g.; boxes, barrels, drums, cylinders, tank cars, IM portable tanks, intermodal bulk containers);
>
> Lack of information from which to determine the cause of major accidents due to multiple fatalities among the crew and/or extensive damage to railroad equipment involved; and,
>
> Conflicting requirements resulting from the need to transport certain extremely hazardous commodities, and the inability to ensure their safety using standard procedures (e.g., radioactive waste).

The nature of individual responsibilities will require contacts and conferences with chemists, design engineers, plant superintendents, traffic managers, top rail officials, rail labor officials and regional safety specialist.

The inspector must exercise experienced judgment to solve complex or unprecedented inspection problems. The inspector must recognize the relationship of the problems and practices of related safety specifications in order to solve the problem or refer it to the regional office.

5. **Scope and Effect**

Conducts in-depth investigations of major railroad accidents and evaluates the effectiveness of railroad safety programs in preventing similar occurrences. Reports regarding the probable and contributing cause or causes of major accidents have a wide circulation in the news media and in the transportation industry and may uncover information sensitive or detrimental to the government, railroad, manufacturers, or individuals involved. The conclusions reached in these reports can have a great impact on the outcome of lawsuits filed in connection with the accident and on the operations and economic status of the railroad involved. Recommendations often become the basis of new safety regulations or laws and lead to major design changes in railroad equipment.

6. **Personal Contacts**

Personal contacts are with persons involved directly or indirectly in the railroad industry at all levels, including railroad craft employees, rail labor representatives, Division Superintendents, Vice Presidents of Operations, State inspectors, including freight forwarders, import/export agents, managers of equipment manufacturing plants, and traffic managers. While conducting complaint or accident/incident investigations, contacts can also include State and local police and fire officials, citizens' groups, representatives of the news media, and insurance investigators. Due to the nature of the work, these contacts are not established on a routine basis, and can occur at various railroad or shippers facilities, accident sites, and in other relatively unstructured settings.

7. **Purpose of Contacts**

The purpose of contacts is to maintain compliance with Federal regulations concerning the shipment of hazardous materials by rail. Since managers of industrial plants, tank car manufacturing and repair facilities, and freight forwarders are frequently skeptical of agency's authority to regulate their activity, employs tact and persuasiveness to obtain their cooperation. While investigating complaints of unsafe conditions and accidents, interviews witnesses who may be unwilling to talk because of fear of reprisal or reluctance to be involved in possible legal action.

8. **Physical Demands**

The work requires long periods of walking over rocky and uneven surfaces around railroad train yards and repair tracks at accident sites. It requires considerable bending, crouching, stretching and crawling in restricted areas to inspect railroad cars. Requires frequent climbing of ladders on cars and negotiating embankments around track roadbeds. Incumbent is often subjected to exposure to hazardous materials, noxious gases and similar other materials deemed to be categorized as "hazardous" at rail installations, wreck sites, shippers, etc. Additionally, inspections and investigations are sometimes made in high crime areas where one must be prepared to defend oneself against physical attack.

9. **Work Environment**

The major work environment of the railroad safety inspector usually takes place along railroad tracks where the employee must be alert for trains and the movement of wreckage by repair crews. While conducting accident investigations, the employee may be exposed to a variety of weather conditions and other environmental discomforts imposed by the site of the wreckage or to poisonous, explosive or other hazardous material that may be leaking from containers or suddenly ignited if improperly or carelessly handled. The inspector must be constantly aware of potential dangers and protective measures to combat them.

**Railroad Safety Inspector**
**(Motive Power and Equipment)**

The incumbent works in a Federal Railroad Administration (FRA) Regional or Field Office. The FRA administers and enforces Federal safety and health laws and regulations that apply to the railroad industry and its ancillary components.

**DUTIES**

The incumbent serves as a Motive Power and Equipment Inspector within an assigned territory covering portions of several States. The inspector has responsibility for the improvement and advancement of railroad safety in areas related to design, construction, inspection, maintenance and use of railroad rolling stock and related appurtenances. In this capacity, the inspector:

Plans and carries out periodic inspections that provide assurance that railroad cars and locomotives are operational in compliance with Federal safety standards. The inspector is charged with the impartial and uniform application of the laws, rules, and regulations, orders and standards pertaining to railroad equipment;

Inspects and observes tests of railroad rolling stock, including motive power, other on-track equipment, and related appurtenances to determine compliance with applicable laws, rules, regulations, orders and standards;

Prior to or during assembly and installation, inspects and observes tests and component parts of railroad facilities to determine whether such parts are suitable for the intended service;

Reviews existing and proposed motive power and equipment designs, construction, operations, maintenance and repair methods to ensure compliance with applicable laws, regulations, standards and orders;

Makes inspections and observations to determine the condition of motive power and other railroad equipment;

Conducts investigations of collisions, reportable derailments, or other accidents resulting in serious injury to person(s) or to the property of a railroad. Determines probable cause of accident or incident and if Federal regulations were violated. Develops comprehensive reports which outline findings and recommendations;

Investigates complaints alleging unsafe conditions or non-compliance with motive power and equipment, safety appliance and power brake regulations. When an unsafe condition or non-compliance with applicable safety laws or regulations are found, appropriate corrective action is taken immediately with the carrier to obtain compliance. Incumbent develops evidence to support prosecutions;

Maintains familiarity with motive power and equipment conditions in an assigned territory. Confers with division and general officers of the carriers, shippers, labor organizations, State Public Service Commissions and others to promote cooperation in the improvement of railroad safety. In order to accomplish this assignment, the incumbent will have intimate knowledge as to conditions in his or her assigned territory relating to motive power and equipment and compliance with laws and regulations. Receives training in the inspection of new types of air brakes, locomotives and railroad cars, and other equipment as necessary;

Maintains awareness of railroad safety activities of States within his/her territory to keep informed of any State regulations that are additional to, or more stringent than, a Federal law, regulations, order or standard applicable to motive power and equipment. Works with and trains State Inspectors involved in the enforcement of the Federal Freight Car Safety Standards under the State Participation program within his/her assigned territory. Interprets new regulations for railroad officials, employees of carriers, and unions;

Reviews and evaluates railroads' petitions for waiver from portions of Federal safety regulations. Makes recommendations to approve or reject petitions; and,

Participates in special studies and projects as assigned by the regional management.

Performs other duties as assigned.

1. **Knowledge Required by the Position**

In addition to broad knowledge of the safety and health principles and practices applicable to all areas of the railroad industry, incumbent must have:

Thorough knowledge of the economic and practical operating considerations as well as the safety and health concerns involved in selecting railroad equipment and in developing repair capabilities suitable for use by railroads and shippers;

Thorough technical knowledge of the capabilities and limitations of power brake systems, locomotives, railroad cars, and their related mechanical and electrical components under various environmental conditions;

Broad knowledge of accident investigative techniques as applied to the railroad industry;

Skill to apply the above knowledge to: (1) determine the best method of obtaining compliance with Federal motive power and equipment and occupational safety and health regulations at facilities in an assigned territory; (2) investigate reportable accidents to determine probable cause and whether or not Federal regulations were violated.

2. **Supervisory Controls**

The supervisor assigns the inspector overall responsibility for planning and carrying out periodic inspections, programs, projects, investigations and other work independently while giving accidents, employee fatalities and complaint investigations preference.

Based on knowledge of the territory and on general agency policy determines the best method of gaining compliance with safety regulations in each situation: informal discussions; defect notice; violation report; or immediate removal of equipment from service. Keeps other inspectors informed of any safety problems found in their areas of inspection (track, signal, etc.) and in the case of interrelated safety.

The supervisor is available for consultation on major problems. Completed work is reviewed for effectiveness in meeting requirements and to ensure conformance with Federal regulations and agency policies.

3.**Guidelines**

Guidelines include: the inspectors manual; books of operating rules issued by the railroads; manufacturer specifications and blueprints for air brakes, locomotives, engines, and other railroad equipment; and various Federal safety and health laws and regulations that apply to the railroad industry, including the Railroad Safety Act, the Locomotive Inspection Act, Freight Car Standards and Occupational Health and Safety Standards.

Uses initiative in handling new or unusual situations that are not covered in inspectors manuals. Interprets and adapts guidelines to fit a variety of problems and situations encountered at railroad and shipper facilities throughout the territory. For example, accident and complaint investigations may involve circumstances which are not fully covered by detailed guidelines.

4. **Complexity**

Enforces and promotes Federal standards concerned with motive power and equipment and occupational health and safety at a variety of railroad facilities in an assigned geographical territory.

At each facility a unique combination of factors must be considered in determining the best approach to solving safety problems and to gaining compliance with Federal regulations. Among these factors are:

Past history of accidents, complaints, or violations at the facility;

Type of rail service provided (e.g. general freight, passenger, piggyback);

Availability and quality of equipment repair facilities in the area;

Presence of environmental hazards to railroading, such as mountainous areas;

Investigates accidents and complaints of health and safety hazards involving conflicting statements from witnesses, incomplete records, and unusual equipment or operations. Resolves all but the most complex problems independently.

The inspector must exercise experienced judgment to solve complex or unprecedented inspection problems. Also, the inspector must recognize the relationship of problems and practices of related safety specializations to solve the problem or refer to the regional office.

5. **Scope and Effect**

Performs a variety of safety inspections and investigations at railroad facilities in an assigned territory. Inspections and investigations are conducted to identify safety and health hazards that railroad management is obligated to correct within a reasonable period of time. If safety hazards pose an immediate danger, railroad cars and locomotives will be taken out of service until repairs are made. This work has an impact on safety, economy, efficiency and type of service provided by the railroad industry.

6. **Personal Contacts**

Contacts are with persons involved in the railroad industry at various levels, including Division Superintendents, Mechanical Superintendents, Shop Managers, Master Mechanics and Union Officials. Contacts also include managers of plants, investigators from State agencies, and State and local officials at the site of an accident. These contacts involve unusual or critical railroad safety problems and thus are not established on a regular or routine basis.

7. **Purpose of Contacts**

The purpose of contacts is to maintain compliance with Federal safety and health regulations applicable to the railroad industry. While investigating complaints of unsafe conditions and accidents, the inspector must frequently interview witnesses who are unwilling to talk because of fear of reprisal or reluctance to be involved in disagreements between railroad managers and union representatives regarding the existence of safety problems or the speed with which defects should be corrected. In those cases, tact and persuasiveness are required to reach a solution acceptable to both sides.

8.**Physical Demands**

The work requires long periods of walking over uneven surfaces around railroad train yards, repair tracks, accident sites and requires considerable bending, crouching, stretching and crawling in restricted areas to inspect railroad cars and locomotives and frequent climbing of ladders on cars, steps on locomotives and embankments around track roadbeds.

Inspections of steam locomotives require considerable climbing and crawling in restricted areas inside boilers to make the required inspections.

9.**Work Environment**

A major part of the inspector's time is spent inspecting freight cars and locomotives in large classification yards. Cars roll freely down an embankment or are flat switched onto tracks adjacent to the one being inspected. There is always danger of derailments that could cause cars to fall over. The inspector must be alert for wide loads and, if necessary, drop to the ground on the narrow walkways between tracks. He/she must also be alert to debris in the walkways between tracks to prevent tripping and falling into the path of moving equipment. The inspector is exposed to a variety of weather conditions and other environmental discomforts. In electrified territory, inspections are made around hi-voltage equipment. Inspectors are required to make inspections of cars in yards, plants and at derailment sites which are loaded with hazardous materials (poisonous, explosive, and highly flammable commodities).

**Railroad Safety Inspector**
**(Operating Practices)**

The incumbent works in a field office of the agency that administers and enforces Federal safety and health laws and regulations that apply to the railroad industry. Telecommuting is appropriate consistent with the Regional Administrator's concurrence.

## Duties

As an Operating Practices Inspector, the incumbent is concerned with operating rules and practices, administration of Federal alcohol and drug control programs, hours of service for railroad employees involved with the movement of trains, Federal locomotive engineer certification standards, occupational safety conditions and reporting, and employee training and qualification. In this capacity, the inspector:

Investigates serious railroad accidents, visits the accident site, makes inspections and tests of situations and objects to determine the operational condition of affected equipment. Questions employees and witnesses to develop facts. Writes a narrative report, describing the accident, the cause or causes and recommends measures to prevent similar accidents in the future;

Examines carrier records to determine that all reportable personal injuries and accidents have been properly reported;

Examines carrier records to determine if employees connected with the movement of a train were permitted to be or remain on duty contrary to provisions of the law;

Examines carrier records to determine if employees connected with the movement of a train are in compliance with Federal alcohol and drug regulations;

Examines carrier records to determine if employees connected with the operation of locomotives or a train are in compliance with Federal regulations concerning locomotive engineer certification;

Investigates complaints from railroad employees or the general public regarding unsafe practices involving train operations;

Investigates as part of a team, reportable accidents and incidents involving railroad operations to determine probable cause and if Federal regulations were violated;

Observes railroad employees in the performance of operational duties related to the movement of trains for compliance with the law, including utility employees.

Assists Motive Power and Equipment inspectors in the inspection of railroad yards, repair shops, and locomotive repair and servicing facilities for compliance with blue signal protection regulations;

When required, submits evidence for prosecution for violations and enforces the provisions of the appropriate Federal laws. If a case goes to trial, the inspector must be prepared to appear in court as a witness for the prosecution to substantiate the Government's case;

Receives, as necessary, additional classroom and on-the-job training in accident investigation, operating rules and practices, and railroad occupational safety and health;

Performs other duties as assigned.

1. **Skills and Knowledge Required**

In addition to broad knowledge of the safety and health principles and practices applicable to all areas of the railroad industry, the following are required:

Broad knowledge of the economic and practical operating considerations, as well as the safety and health concerns involved in designing, constructing, and maintaining equipment in all areas of railroad operations and in developing operating rules and practices.

Thorough knowledge of the principles and practices involved in conducting in-depth accident investigations including: relationship of equipment design factors to human response patterns; application of operating rules and practices; examination of pertinent operating documents for trains involved; employee qualification and service records, plus physical condition of deceased as determined by autopsy report.

Inspector must interrelate the above knowledge to investigate major railroad accidents, plus individual employee fatalities, to determine the root cause or causes, and suggest practical means of preventing future accidents, evaluate trends in railroad accidents and suggest new ways to improve safety or perform similar continuing or long-range projects.

Thorough knowledge of the Federal laws, court cases and interpretations related to the Accident Investigation Laws, the Hours of Service Laws, Power Brake Law, Safety Appliance Acts, Federal Railroad Safety Act of 1970, Railroad Freight Car Safety Standards, and subsequent Safety Acts or Amendments.

Thorough knowledge of Federal Railroad Administration's implementing regulations and orders covering employee qualifications, hours of service, occupational safety and health, radio rules, operating rules and practices, alcohol and drug program administration, and locomotive engineer certification.

2. **Supervisory Controls**

The supervisor provides overall work objectives with instructions for new, difficult or unusual aspects of the work. Has responsibility for providing technical advisory service in the area of accident investigation, hours of service, blue signal protection of workmen, hours of service for signalmen, operating rules and practices, accident/incidents, occupational safety and health, radio rules, etc. Information furnished enables the inspector to accomplish objectives, goals and meet deadlines.

The inspector has responsibility for carrying out the work as instructed and to perform routine assignments independently without specific instruction. Refers unusual situations not covered by instructions to the supervisor for technical advice and guidance.

Work is reviewed by the supervisor to assure accuracy, adequacy and compliance with instructions. There may be an occasional spot check of work to assure use of proper techniques and procedures, and the correct understanding of requirements. Investigative and inspection reports are reviewed to determine thoroughness, clarity and whether there is further need for handling with carriers or shippers to insure correction. All reports of violations are given detailed review by the supervisor to determine appropriateness, soundness of decision, etc. prior to forwarding to Chief Counsel for prosecution.

3. **Guidelines**

Guidelines used in performing work include: agency memorandum of policy; technical bulletins; court decisions; established procedures; policies and traditional reports and practices; carrier operating rules; safety rules; bulletins, special instructions and blueprints covering tracks and yard installations; Federal safety and health laws and regulations that apply to railroad industry; the Railroad Safety Act; the Accident Report Laws; the Hours of Service Act; the Power Brake Law; Safety Appliance Acts; and Railroad Freight Car Safety Standards.

Guidelines include: Agency regulations and directives; manufacturers' catalogs and handbooks; precedents and files of previous projects; chemical dictionary; medical dictionary; national fire protection guide; railroad equipment register; car builders encyclopedia with blue prints and diagrams where applicable. Projects often require significant departure from previous approaches with extension of traditional techniques or development of new ones to meet major objectives without compromising principles.

4. **Complexity**

Inspector carries out a wide variety of complex and continuing assignments in many specialized areas of railroad operations. Typical assignments include:

Under authority of the Federal Safety Act of 1970 and subsequent Acts and/or amendments, examines carriers operating rules, employee qualification guidelines and carrier employee training programs to assure compliance with existing Federal regulations and standards.

Reviews carrier records relative to compliance with Occupational Safety and Health Standards.

Under authority of Accident Investigation Law, conducts investigations of serious railroad accidents. Visits the scene of the accident and makes inspection and tests of situations and objects to determine the condition of operation of equipment. Examines pertinent operating documents for the trains involved and reviews application of operating rules and practices. Questions employees and witnesses to develop facts. Writes a narrative report describing fully the accident, all circumstances and conditions in connection therewith (as pertains to his/her particular field of expertise), the cause or causes and makes recommendations regarding this accident and appropriate measures to prevent similar accidents in the future.

Examines accident and personal injury files of the railroads to assure that all reportable accidents and injuries resulting from accidents have been properly reported. Where insufficient information is filed, interviews the injured party, the physician, supervisors, claim agents, or others for the additional information.

When the carrier has failed to make report of a reportable personal injury, secures the necessary documentary evidence for prosecution.

Under authority of the Hours of Service Act, examines carrier's records to determine whether employees connected with the movement to trains are permitted to be or remain on duty contrary to the provisions of the law, and whether the carrier has reported all causes of excess service to the Federal Railroad Administration, as required, whether causes attributed for excess service constitute valid reasons under the law to warrant excess service or whether such service could by reasonable foresight and diligence have been avoided. To do this, all pertinent records pertaining to time returns, dispatchers' movement of train sheets, train order and other messages, delay reports etc., are examined. From this material, determines whether there is evidence of unreported cases of excess service and the validity of the carrier's causes for excess service. When violations are uncovered, copies of pertinent records are procured to substantiate the Federal Railroad Administration's prosecution of the case. In some instances interviews with the persons involved in the alleged violation are required to substantiate the charge and obtain further evidence.

When violations or potential hazards are uncovered in the course of the work, on-the-spot correction of the improper of unsafe conditions is frequently possible by calling them to the attention of the carriers, employees or shippers or their representatives, explaining the provisions of the laws and orders of the Federal Railroad Administration and the Federal Railroad Administration's authority. When punitive action is required to enforce the provisions of the laws, the evidence collected must be complete and accurate to permit successful prosecution in the courts by the legal staffs of the Federal Railroad Administration. If the cases go to trial, the inspector may be called to appear in court as witness for the prosecution to substantiate the Government's case. He/she confers with the prosecuting attorneys before and during the trial to furnish information in connection with the evidence gathered.

When complaints are received alleging non-compliance with the laws and orders, a complete investigation is made, the facts determined and recommendation submitted as to necessity for prosecution to enforce the requirements. When no violation is found, the circumstances must be clearly stated and explained to the complainant so that he/she will understand the Federal Railroad Administration's powers and authority in the matter and why no action was instituted. In many instances this is done personally by the incumbent and in other instances by report to the regional headquarters, where the case is handled to completion with the complainant.

5. **Scope and Effect**

Inspector performs complete inspections, accident investigations, and other assignments that involve a wide variety of railroad safety and health problems and issues.

The effects of this work are nationwide, pertinent to the safety of employees and travelers on the railroads. Inspectors are responsible for assuring that employees responsible for train movement do not remain on duty for excessive periods so that they will be alert and capable of full exercise of their faculties.

Published reports of accident investigations have a wide distribution and are highly regarded in the railroad industry. The reports point out how similar accidents may be avoided. Mistakes or errors in judgment in the investigation of an accident could cause the Federal Railroad Administration to ascribe an erroneous cause to the accident and would not only prove embarrassing to the Federal Railroad Administration but would nullify the effects of its published accident reports.

The inspector represents the region in the geographical area in matters relating to hours of service, safety appliances and train accidents.

6. **Personal Contacts**

Personal contacts are mostly with persons involved directly or indirectly in the railroad industry at all levels, including railroad craft employees, union representatives, Division Superintendents, Vice Presidents of Operations, State inspectors, freight forwarders, managers of equipment manufacturing plants, and traffic managers. While conducting complaint or accident investigations, contacts can also include State and local police and fire officials, citizens' groups, representatives of the news media, and insurance investigators. Due to the nature of the work, these contacts are not established on a routine basis, and can occur at various railroad or shippers facilities, accidents sites, and in other relatively unstructured settings.

7. **Purpose of Contacts**

The purpose of contacts is to gain compliance with Federal railroad safety and health regulations or to interview witnesses regarding the circumstances surrounding an accident or a reported unsafe condition on railroad property. At this level, the inspector may receive assignments involving controversial regulations that are a source of disagreement between the agency, railroad manager, and union officials. Railroad officials or plant managers contacted are sometimes uncooperative and skeptical about the worth of Federal safety programs. Witnesses are often unwilling to talk due to fear of reprisal or reluctance to be involved in possible legal action. The inspector must use tact, persuasiveness, and technical expertise to gain the confidence of these contacts and resolve disagreements in the best interest of railroad safety.

8. **Physical Demands**

The work regularly requires long periods of walking around railroad yards, industrial plants, grain elevators, coal piers, car floats, and accident sites, both day and night. Also requires bending, crouching and stretching to inspect wreckage, track or equipment,

climbing steep embankments around road beds, climbing ladders on bridges, trestles, railroad cars, loading platforms and racks, signal towers and signal masts. During accident investigations long and tiring work is performed in addition to time spent while traveling to the accident site.

9. **Work Environment**

Duties regularly require working in railroad classification yards, day and night, often during inclement weather conditions, where rail cars are being humped by gravity and moving continually into various yard tracks. Constant lookout must be kept at all times in any railroad yard, along main tracks, or in industrial plants such to prevent possible serious injury. While in railroad yards, on main tracks, in industrial plants, and freight forwarders, the inspector is frequently exposed to poisonous, explosive, and highly flammable commodities that could be leaking from rail cars or containers, or suddenly ignited by fire by improper handling. Also, there is the hazard of possible felonious assault by trespassers during investigations in railroad yards. Accident sites involve such hazards as electrified third rail and overhead catenary wires with high voltages, bridges, trestles and tunnels day and night. Inspections also include sites such as coal docks, grain elevators and float bridges where rail cars are loaded on and off of car ferries.

**Railroad Safety Inspector**
**(Signals and Train Control)**

The incumbent works in a field office of the agency, that administers and enforces Federal safety, and health laws, and regulations that apply to the railroad industry.

## Duties

As a Signals and Train Control Inspector, the incumbent is concerned with signal and train control and highway-rail crossing warning systems within an assigned territory. In this capacity, the inspector:

Plans and carries out an itinerary of periodic inspections of all signal and train control and highway-rail crossing warning systems in the territory to ensure that they are properly installed, operated, tested, and maintained.

Investigates complaints from railroad employees, union officials, and the general public regarding unsafe or hazardous signal and train control or highway-rail crossing conditions; e.g. "false proceeds", "activation failures."

Determines the need for and conducts safety meetings and training sessions for railroad employees regarding proper signal installation and maintenance and safe operating practices.

Investigates independently, or as part of a team, reportable collisions, derailments, and other accidents (especially those involving possible signal or train control failure); includes highway crossing warning equipment when the accident involves rail and vehicle collision.

Evaluates railroads' request to install, modify, or remove limited portions of a signal or train control system; e.g., redesign of several miles of automatic block signal; assists the Regional Signal Specialist in evaluating more complex requests by analyzing portions of the plan and making preliminary recommendations.

Investigates independently or as a part of a team, accidents which result in the fatality of a railroad employee. Generally, these assignments are limited to those involving a signal department employee or where signal equipment or power lines etc. are involved.

Investigates complaints concerning the malfunction of highway crossing protection devices or equipment under the broad purview of the Railroad Safety Act of 1970.

Reviews and evaluates carriers applications for waiver of requirements of Federal regulations and standards applicable to signal and highway-rail crossing systems. Makes recommendations to approve or reject applications.

Assists in the development of new or modified signal and train control and highway-rail crossing regulations as part of the regional effort to the national effort.

Investigates carrier and/or manufacturers development of new State of the art signaling apparatus and concepts; assists the Regional Signal Expert in the evaluation of such new developments by frequent inspections and tests.

Where noncompliance of Federal signal rules, regulations, or standards, is noted, the inspector initiates immediate correction and, if in the opinion of the inspector, the condition is such as to present a serious hazard, a violation report is issued. The incumbent may then be required to appear as the expert witness in a court trial.

1. **Knowledge Required by the Position**

In addition to broad knowledge of the safety, and health principles applicable to all areas of the railroad industry;

Thorough knowledge of the economic and practical operating considerations as well as the safety concerns involved in designing, constructing, and maintaining signal and train control and highway-rail crossing warning systems;

Thorough technical knowledge of the capabilities and limitations of the various mechanical, electrical, electronic, and pneumatic components of signal and train control and highway-rail crossing systems;

Broad knowledge of accident investigative techniques as applied to the railroad industry;

Skill to apply the above knowledge to: (1) determine the best method of obtaining compliance with Federal signal and train control regulations on all railroads in an assigned territory; and (2) investigate reportable accidents to determine probable cause and whether or not Federal regulations were violated.

A broad knowledge is required of the locomotives' braking system (both air and dynamic) in order to establish the required interface between the wayside signal apparatus and the train stopping or speed control-systems used on the locomotive;

A knowledge is required of other elements of the electronic and electrical fields. These include power distribution systems, cathodic protection of underground pipelines, electric locomotive propulsion ground current return systems (any of which may individually or collectively have an adverse effect on the function of the signal systems).

2. **Supervisory Controls**

The supervisor provides overall objectives, assigning the inspector responsibility for conducting periodic inspections in a specific geographical area. Work assignments are in the form of accident notification, copies of complaint letters, copies of carriers' request for approval of modifications, discontinuances or waiver of Federal rules and regulations, and verbal complaints and queries concerning signal and train control matters received from railroad employees. The frequency of test and inspection is established by the inspector dependent upon his knowledge of past observations and type of equipment and apparatus in use at the various locations such as density of traffic, kind of traffic (passenger or freight) and the carriers' use of new-modern or old or obsolete signal equipment and apparatus.

Based on knowledge of the railroads in the territory and on general agency policy, determines the best method of gaining compliance with safety regulations in each situation: informal discussion; defect notice; violation report; or immediate removal of equipment from service.

Keeps supervisor informed of any safety problems found in other areas of inspection (track, motive power, and equipment, etc.) and in the case of, interrelated safety problems, coordinates the enforcement activity.

Much of the work involves providing on-the-spot technical advice to trainees, railroad officials, and others which does not lend itself to supervisory review. Accident reports, recommendations regarding proposed signal changes, and other work products are usually considered technically sound. Controversial actions proposed by the employee are reviewed for their- practicality and potential effectiveness in promoting railroad safety.

Reports, notices, and other work products are reviewed for their effectiveness in promoting safety in the territory. Controversial findings or actions proposed by the inspector are reviewed for possible impact on agency enforcement programs and policies.

3. **Guidelines**

Guidelines include: agency policy, memoranda; inspector manuals; manufacturers' specifications and blueprints for signal and train control components; track layout plans; books of operating rules issued by the railroads; and the various Federal safety and health laws and regulations that apply to the railroad industry (especially, the Railroad Safety Act, the Accident Reports Act, the Signal Inspection Act, and the Track Standards). As an inspector working alone in an assigned territory, employee uses initiative and experienced judgment in handling new or unusual situations that are not covered in the inspectors' manuals.

Interprets and adapts the guidelines to fit a variety of problems and situations encountered at railroad facilities throughout the territory. For example, each signal system presents a unique combination of track circuits, lights, switches, interlocking and other control apparatus. The inspector must determine if there is a misplaced or broken item anywhere in the system, or ambiguous operating rules that could result in inaccurate information being relayed to the train crew or the dispatcher.

The Rules, Standards, and Instructions for Signal Systems is necessarily broad in the language used. This is due to the fact that each interlocking and control system is designed according to the physical layout of the tracks. There is very little standardization of circuit design, type or style of equipment used, nomenclature of circuits or applicable carrier operation rules, and signal and aspects used. Tests required to be made by the carrier are not specific. It must be determined that such tests fulfill the safety requirements of the system. Due to these variables, the
guidelines are broadly stated and to an extent are nonspecific. The development of new regulations and changes made to existing regulations is a continuing process caused by the
development of new signal systems, highway-rail crossing warning systems, apparatus, and electronic devices.

Carriers signal circuit design plans are sometimes found to have omissions or improper circuit design. These plans must be analyzed to determine if the design is proper to assure that the system operates as is intended. Specific guidelines are not provided for such reviews.

4. **Complexity**

In an assigned geographical territory, enforces and promotes Federal standards concerned with signals and train controls. A unique combination of factors must be considered to insure solving safety problems and to gain compliance with Federal signal and train control regulations. Among these factors are:

Physical layout of the track, signals, switches, and stopping distances for trains which must be considered if all the regulations are to be met;

Effects from outside sources and weather conditions;

Interface between the train speed control on locomotives with the wayside signaling including; speed, grade, braking effort, and curvature of track;

The lack of standardization by the railroads results in signal and highway-rail crossing circuits designed in many different ways;

Each carrier has its own set of rules covering many types of signals which convey information to govern the movement of trains;

The nomenclature used on signal circuit and highway-rail crossing plans is not standardized;

Investigation of accidents and complaints of safety hazards involving conflicting statements

from
witnesses, incomplete records and unusual equipment or operations. Uses experience, judgment in developing new techniques to solve difficult and complex problems.

5. **Scope and Effect**

Performs a variety of safety, compliant, and accident investigations, at railroad facilities in assigned territory. Inspections and investigations are conducted to identify safety and health hazards that railroad management is obligated to correct. If safety hazards pose an immediate danger, railroad equipment may be taken out of service by the railroad until repairs are made. An inspector's non-concurrence in a carrier's request for discontinuance of a signal system, interlocking or highway-rail crossing warning system will obligate the carrier to continue use and maintenance of disputed segment or system.

Failure of the carrier to comply with the Federal regulations when unsafe conditions are called to their attention by the inspector, can result in a monetary penalty through the process of the Claims Collection Procedures of the U.S. District Court. Work completed by the inspector has an impact on a large segment of the railroad industry.

6. **Personal Contacts**

Most contacts are with railroad employees, managers, manufacturers' representatives, and union officials at various railroad facilities. Other contacts can involve citizens who are lodging complaints about unsafe railroad conditions or who are witnesses to railroad accidents. Such contacts are usually not established on a routine or regular basis.

7. **Purpose of Contacts**

The purpose of contacts is to maintain compliance with Federal safety, and health regulations applicable to the railroad industry. While investigating complaints of unsafe conditions and accidents, the inspector must frequently interview witnesses who are unwilling to talk because of fear of reprisal, or reluctance to being involved in possible legal action. The inspector may become involved in disagreements between railroad managers and union representatives regarding the existence of safety problems or the speed with which defects should be corrected. In those cases, tact and persuasiveness are required to reach a solution acceptable to both sides. Manufacturers' representatives and suppliers are contacted in connection with new concepts, methods, or apparatus used to modernize the signal systems.

8. **Physical Demands**

Conducting accident investigations or on-site inspections relative to a proposed signal modification plan requires long periods of walking on rocky and uneven surfaces around railroad tracks, occasional bending and crouching to inspect signals, switches, and wreckage, and some climbing of embankments around track roadbeds. Requires the climbing of high signal ladders to inspect signal mechanisms. Many interlocked movable bridges over rivers and waterways require climbing above and below the bridge structure to inspect bridge wedges, locks, and operating mechanisms. Many of these bridges are vertical lift-type which are at heights to permit ocean-going vessels to pass.

9. **Work Environment**

Most inspection work takes place along railroad tracks, where the employee must be alert for trains and avoid getting in switches and other moving parts. A hardhat and safety shoes are usually worn. While conducting inspections and accident investigations, the employee is exposed to a variety of weather conditions and other environmental discomforts (mountainous or swampy locations). Inspections and tests are made on signal power lines and protective apparatus energized at voltages up to 6600 volts. Where third rail propulsion is used, voltages at 600 volts DC are located adjacent to the running rails. In AC electrified territory, the catenary system is 11,000 volts. Inspectors are required to inspect signals and cables in the close vicinity of the catenary system. Within yards and along the right of way, hazardous materials are transported; in a variety of conveyances. At derailments, the inspector is frequently exposed to poisonous, explosive, and highly, flammable commodities that could leak or suddenly ignite.

**Railroad Safety Inspector**
**(Track)**

The incumbent works in the field for the agency that administers and enforces Federal safety and health regulations that apply to the railroad industry. The primary objective of the position is to minimize the risk of human casualty and societal loss due to train accidents caused by defective conditions of railroad track and structures, or by hazardous working conditions for railroad employees, within the incumbent's assigned inspection territory.

## Duties

The incumbent performs inspection and monitoring functions to assure compliance with Federal safety and health regulations among railroads, railroad employees, and contractors to railroads within an assigned geographical territory. The principle subjects of inspection, monitoring and enforcement are:

The safety of railroad track, roadway, and roadway facilities, including bridges, culverts and other track-supporting structures, and excepting signal, train control and communication systems.

Working procedures and safety provisions for railroad employees engaged in work on and near active tracks and at heights on bridges and other structures.

Clean, safe and sanitary condition of temporary living quarters for railroad roadway maintenance employees.

Noise levels resulting from railroad operations and transmitted to the environment surrounding railroad property.

The incumbent also participates in work of a non-enforcement nature related to State participation programs, local railroad assistance projects, training of personnel and other special projects, both within and beyond the normally assigned territory.

In these capacities, the incumbent:

Plans and implements a program of periodic inspections to provide optimum coverage of the railroad track network in the assigned territory. Coordinates operation of a track geometry test car and uses the information produced to detect, locate and evaluate deviations in crosslevel, gage and profile of track. Performs on-ground inspections where defects are indicated to determine the seriousness of the problems and the best means of correction.

Prepares reports of violations when necessary, collecting sufficient back-up evidence to support agency attorneys in prosecution;

Investigates complaints from railroad employees, the general public, or Legislative or governmental representatives involving unsafe conditions of track or the other subject areas of responsibility, and interviews complainants, railroad officials, and any parties as required for proper investigation of the complaint;

Determines the need for and conducts safety meetings and training sessions for railroad employees regarding proper and safe inspection and maintenance procedures for track and other roadway facilities;

Performs, either individually, or as a member or leader of a team, investigations of significant train accidents resulting in serious injury to persons or property damage occurring on the line of any common carrier engaged in interstate or foreign commerce by railroad. Determines probable cause of accident or incident and whether any Federal regulations were violated;

Participates in evaluating requests of States or small railroads for Federal aid to upgrade light density rail lines and monitors the progress of work on Federal railroad assistance projects;

Conducts training of State-employed candidates for acceptance into the State Participation Program for
track inspection; and evaluates the progress of the candidates, providing detailed progress reports;

Initiates and maintains contacts with employees in other Federal, State and local government agencies in connection with issues relating to Federal railroad assistance and enforcement of Federal railroad safety regulations;

Maintains contact with local and mid-level officials of railroads and rail labor organizations on a regular basis while performing inspection and investigative duties, and accession with officials at corporate
and national levels;

Provides technical advice and interpretation of regulations to railroad officials when required to obtain or improve the quality of compliance; and,

Produces detailed reports of accident, complaint, violation, and special investigations, including all information necessary for the proper and expeditious processing of such investigations;

Receives regular training in technical aspects of railroad track and related subjects and in inspection and investigation procedures, and maintains contact with manufacturers of track components and maintenance machinery to keep abreast of the State of the art.

1. **Knowledge Required by the Position**

In addition to possession of a broad knowledge of the safety and health principles and practices applicable to all areas of the railroad industry, incumbent will have:

Thorough knowledge of the safety, economic, and practical operating issues involved in designing, constructing, and maintaining track systems and related structures;

Thorough technical knowledge of the properties and limitations of the material used in railroad track and related roadway structures under various environmental conditions (e.g. the ability of various ballast materials to provide drainage of the roadbed under varying moisture and weather conditions; and the expansion and longitudinal movement of rail when restrained by various types of fasteners);

Thorough knowledge of the principles of fall protection measures used by railroad employees working on bridges or at heights, and the specific knowledge necessary to use agency-supplied personal fall arrest equipment in a variety of situations on railroad bridges for the inspectors own personal safety when on bridges.

Working knowledge of railroad operating rules that affect the safety of railroad employees, and the inspector personally, while working on or near active railroad tracks to avoid being struck by moving trains or other railroad equipment and to enforce the regulations appertaining thereto.

Broad knowledge of accident investigation techniques as applied to the railroad industry;

Skill to apply the above knowledge to:

(1) determine the best method of obtaining compliance with Federal track standards on all railroad lines in an assigned territory; and
(2) investigate significant railroad accidents and incidents to determine probable cause and whether or not Federal regulations were violated;

Skill to write clear, complete and concise reports of all assignments and investigations performed;

Ability to deal with railroad officials to obtain the highest possible level of compliance with Federal regulations and to assure an understanding of the applicable regulations.

2. **Supervisory Controls**

The supervisor sets forth overall objectives, assigning the inspector overall responsibility for scheduling and conducting inspections and other compliance activity in his/her territory. The inspector independently plans and carries out programs of enforcement activity in areas where particular problems exist, as identified by the inspector through independent observation and correlation with statistical information compiled by the agency. In consultation with the supervisor, the inspector recommends and establishes deadlines and general parameters as various projects occur in the territory.

Based on knowledge of the railroads in the territory and within broad limits set by general agency policy, the inspector determines the best methods of gaining compliance with safety regulations in each situation. The inspector uses initiative in adapting established procedures to circumstances when necessary to accomplish the mission effectively. Keeps the supervisor informed of progress, potentially controversial matters, or far reaching implications.

The incumbent informs inspectors in other disciplines of safety problems found in their areas of responsibility (signals, motive power and equipment, etc.) and, in the case of interrelated safety problems, coordinates and schedules enforcement activity with them.

Reports, notices and other work products produced by the incumbent are normally accepted without significant change. Work is reviewed for such matters as fulfillment of program objectives in the territory, effect of advice and influence of the overall program and to ensure that assigned inspections and investigations are conducted effectively. Controversial findings or actions proposed by the inspector are reviewed for possible impact on agency enforcement programs and policies.

3. **Guidelines**

Guidelines consist primarily of general agency administrative policies, the laws and regulations to be enforced, agency compliance manuals, and occasional clarifications, interpretations or revisions to agency policy. Documents produced by the inspected railroads, such as operating rules, track charts and internal inspection reports, are used in the expeditious handling of inspections and investigations.

The inspector interprets and adapts the limited guidelines to fit a variety of problems and situations encountered throughout the territory, using initiative and resourcefulness in adapting traditional methods to effectively treat each situation and accomplish the desired results.

4. **Complexity**

The incumbent enforces and promotes Federal railroad safety standards related to track conditions, bridge worker safety, roadway worker protection against trains, boarding car sanitation, and environmental noise restrictions on all common carrier railroads in an assigned geographical territory. The incumbent must consider a unique combination of factors at each location to determine the best approach to solve safety problems and to gain compliance with Federal safety standards. Among these factors are:

History of accidents, complaints, or violations in a particular area;

The characteristics of railroad traffic on a section of track, including train size and speed, weights of cars and locomotives, the mix of hazardous and non-hazardous materials in freight, and the existence of passenger traffic.

Environmental factors, such as temperature range, drainage conditions or the special risk factors associated with mountain railroading.

5. **Scope and Effect**

The work of the incumbent has a direct effect on the safety and health of the entire population living or working near the railroad tracks in the assigned territory, which might include the entire population of one or more States, or cities of equivalent population. The work has an even more direct impact on the safety and health of railroad employees and passengers who depend directly on the integrity of railroad track and associated structures.

Railroads are required by regulation to take immediate remedial action on all defects found and noted by the inspector. The inspector is authorized to immediately order a reduction of train speeds to ten miles per hour, and may recommend to higher authority in the agency that a track or facility be removed from service. Decisions of the inspector regarding the scheduling and intensity of inspection activity have an immediate, direct effect wherever a railroad operates on track that does not comply with Federal regulations. The inspector's actions in such instances significantly affect train operations, railroad freight and passenger service, and the financial performance of the railroad.

6. **Personal Contacts**

Most contacts are with officials of railroads and rail labor organizations, and the general public. Contacts are also maintained with State track inspectors. Occasional contacts include citizens who are witnesses to railroad accidents. Contacts with railroad officials are usually established on a routine or regular basis, during the normal conduct of inspection and monitoring activity. Occasionally the person contacted will represent a differing viewpoint or opinion, or will otherwise disagree with the inspector. In such cases the inspector must present the position of the Government in a tactful and competent manner.

7. **Purpose of Contacts**

The purpose of contacts is to:

Schedule and coordinate inspection and enforcement activity;

Obtain information either informally or through verified statements of witnesses;

Inform railroad personnel of situations or conditions that might appear contrary to their best interests, or those of their employer; and

Bring about compliance with safety standards and principles with the lowest level of Federal enforcement activity.

8. **Physical Demands**

The work requires long periods of walking on rocky and uneven surfaces around railroad tracks and accident sites, frequent bending and crouching to measure track geometry and inspect track defects, frequent climbing of embankments and track structures, and mounting and dismounting from railroad inspection vehicles. The inspector will occasionally travel on foot as much as ten miles in one day.

9. **Work Environment**

Most inspection work takes place along railroad tracks, in railroad yards, and around track structures, where the inspector must be alert at all times for the approach of trains or rolling equipment. The inspector must use extreme caution to avoid getting caught in the moving parts of turnouts, and to avoid slipping or tripping over track appurtenances or falling from structures. Safety eyeglasses, a safety helmet and safety shoes are usually worn while on railroad property. Accident investigations often bring the inspector in close proximity to hazardous materials and other potential hazards. While conducting inspections and accident investigations, the inspector is exposed to the weather conditions prevailing at the time, including temperature extremes and precipitation, and other environmental discomforts such as disagreeable insects, toxic vegetation, or poisonous snakes.

When monitoring compliance with workplace safety regulations on a bridge, the inspector regularly goes onto the bridges regardless of height above ground or water, equipped with personal fall protection equipment provided by the agency supplemented connected to fall arrest systems set up and used by the railroad or contractor.

**Railroad Safety Inspector**
**Highway-rail Grade Crossing Signal Systems**

The incumbent works in a State office for the agency indicated in the State Safety Participation Program agreement for the administration and enforcement of Federal safety and health laws and regulations that apply to the railroad industry as outlined in 49 CFR Part 212.

## Duties

As a Highway-rail Grade Crossing Inspector, the incumbent is concerned with active highway-rail grade crossing warning systems within their State and/or assigned territory. In this capacity, the inspector:

Plans and carries out an itinerary of periodic inspections of all active highway-rail grade crossing warning systems in the territory to ensure that they are properly installed, operated, tested, and maintained.

Investigates complaints submitted to State agencies from railroad employees, unions officials, and the general public regarding unsafe or hazardous active highway-rail grade crossing conditions; e.g., A false activations, activation failures.

Determines the need for and conducts public awareness presentations for railroad employees, civic organizations, school systems, and the general public regarding highway-rail grade crossing safety.

Participates with State and local law enforcement agencies in programs to enhance public safety at highway-rail grade crossings.

Determines the need for and conducts safety meetings and training sessions for railroad employees regarding proper installation, testing, and maintenance of active highway-rail grade warning systems.

Investigates independently, or as part of a team, motor vehicle-train collisions and other incidents involving active highway-rail grade crossing warning systems.

Evaluate railroad operating rules for compliance with Federal regulations as they pertain to active highway-rail grade crossing warning systems.

Advises railroad and appropriate governmental agencies of needed changes to the national highway-rail grade crossing inventory.

Evaluate accident/incident data and formulate recommendations for reducing the number of highway-rail grade crossing accidents and casualties.

Assist Federal, State, and local government agencies and planning organizations to reduce the number of highway-rail grade crossings by eliminating redundant and/or seldom used crossings.

May serve as a member of a diagnostic team, in partnership with other State agencies, in determining the need for, and technical requirements of new installations of highway-rail grade crossing warning systems.

Where noncompliance of Federal highway-rail grade crossing regulations is noted, the inspector initiates immediate correction and issues a violation if, in the opinion of the inspector, the condition is such as to present a serious hazard to the motoring public. The incumbent may be required to appear as an expert witness in a court trial to prosecute the violation.

Conducts inspections of hours of duty records for service performed subject to the hours of service laws as they pertinent to signal personnel. Detects areas of noncompliance with hours of duty records requirements, and communicates these findings to the appropriate Federal specialist for further investigation and prosecution.

1. **Knowledge Required by the Position**

Broad knowledge of the safety and health principles applicable to all areas of highway-rail grade crossing safety.

An understanding of typical motorist behavior at highway-rail grade crossings equipped with active warning systems and how unsafe actions can result in motor vehicle-train collisions.

Broad knowledge of the economic and operating, as well as the safety considerations involved in designing, constructing, testing, and maintaining active highway-rail grade crossing systems.

Broad knowledge of the standards and recommended construction practices for highway-rail grade crossing warning system installation as outlined in the Manual of Uniform Traffic Control Devices.

Knowledge of signal and train control systems sufficient to ensure for the safety of train operations while inspecting and testing highway-rail grade crossing warning systems.

Sufficient knowledge of 49 CFR Part 228 and the Hours of Service Act to be able to recognize noncompliance with hours of duty records requirements and the limitations on hours of duty imposed by the hours of service laws for signal employees.

Sufficient knowledge of railroad operating rules in order to evaluate such rules for compliance with Federal regulations as they pertain to active highway-rail grade crossing warning systems.

Thorough technical knowledge of the capabilities and limitations of the various mechanical, electrical, and pneumatic components of active highway-rail grade crossing warning devices and systems.

Broad knowledge of accident investigation techniques and data analysis as applied to highway-rail grade crossing accidents, injuries, and casualties.

Skill to apply the above knowledge to: (1) determine the best method of obtaining compliance with Federal highway-rail grade crossing regulations in a State and/or assigned territory; and (2) investigate motor vehicle-train collisions to determine probable cause and whether or not Federal regulations were violated.

A general knowledge is required of other elements of the electronic and electrical fields pertinent to railroad operations. These include power distribution systems, electric locomotive propulsion ground current return systems, magnetic theory, motor theory, and analog and digital electronic theory as they relate to the installation, testing, and maintenance of highway-rail grade crossing warning systems.

2. **Supervisory Controls**

The FRA Regional Headquarters provides overall objectives, program and technical guidance, and interpretations of Federal regulations. Inspector performance is routinely communicated to the State program manager by the FRA through a mutually agreed upon procedure. Routine and priority work assignments are made by the State program manager. Priority assignments include accident notification, complaint notification, and queries concerning highway-rail safety from railroad employees, other government agencies, and the general public. The frequency of regular test and inspection activities is established by the inspector based upon his knowledge of inspection history, the type of equipment and apparatus in use at various locations, rail and motor vehicle traffic mix and density, and historical accident/incident data.

Based on knowledge of the railroads in the State or assigned territory and general FRA and State policy, determines the best method of gaining compliance with safety regulations in each situation: informal discussion; defect notice; violation report; removal of the equipment from service; or individual liability actions. Keeps supervisor and FRA Regional Headquarters informed of any safety problems found in other areas of inspection (track, operating practices, etc.) and in the case of interrelated safety
problems, coordinates the enforcement or safety awareness activities.

Much of the work involves providing on-the-spot technical advice and safety awareness presentations to railroad employees and officials, State and local government agencies, and civic organizations which do not lend itself to supervisory review. Accident reports, complaint reports, and other work products are usually considered technically sound. Controversial actions proposed by the employee are reviewed by the supervisor and/or FRA Regional Headquarters for their practicality and potential effectiveness in promoting highway-rail grade crossing safety.

Reports, notices, and other work products are reviewed for their effectiveness in promoting safety in the State or assigned territory. Controversial findings or actions proposed by the inspector are reviewed for possible impact on State policies and FRA compliance programs and policies.

3. **Guidelines**

Guidelines include: State policy; FRA policy memoranda; inspector manuals; manufacturers' specifications and circuit plans (including Boolean Algebra formula and Truth Tables); books of operating rules issued by the railroads; and various Federal safety and health laws and regulations that apply to highway-rail grade crossing safety (especially 49 CFR Part 234). As an inspector generally works alone in a State or assigned territory, employee uses initiative and experienced judgment in handling new or unusual situations that are not covered in the inspectors' manuals.

Interprets and adapts the guidelines to fit a variety of problems and situations encountered at highway-rail grade crossing locations throughout the State or assigned territory. For example, each active highway-rail grade crossing warning system presents a unique combination of track circuits, detection equipment, lights, gates, switches, and other apparatus. The inspector must determine if there is a noncomplying condition, or ambiguous operating rule that could result in a reduction of the designed level of safety of the system.

The Grade Crossing Signal System Safety regulation is necessarily broad in the language used. While concepts are the same and many of the components are similar, each highway-rail grade crossing warning system is unique in its application. The number of tracks, site distances, and other diverse geographic differences tend to make each location unique. Tests required to be made by the carrier are not specific. It must be determined that such tests fulfill the safety requirements of the system. Due to these variables, the guidelines are broadly stated and to an extent are nonspecific. The development of new regulations and changes to existing regulations is a continuous process caused by the development of new detection devices and apparatus.

Carriers' highway-rail grade crossing warning system circuit design plans are sometimes found to have omissions or improper circuit design. The inspector will analyze plans to determine if the design is proper to assure system integrate and that the system functions as intended. Specific guidelines are not provided for such reviews.

4**. Complexity**

Within a State or assigned territory the inspector will assure compliance with Federal standards concerning highway-rail grade crossing warning systems and promotes programs to increase the public awareness of crossing safety. A unique combination of factors must be considered to insure resolution of safety problems and to gain compliance with Federal highway-rail grade crossing signal regulations. Among these factors are:

- Past history of accidents, complaints, and violations at the location;
- Type of rail service and the speed of trains over the crossing;
- Physical layout of the crossing and the type of warning device provided;
- Effects of outside sources and weather conditions;
- The lack of standardization by the railroad resulting in a variety of detection devices;
- The variety of operating rules, special instructions, and maintenance of way rules as they apply to Highway-rail grade crossing warning systems.
- The lack of standardization of system circuits, circuit plans, and nomenclature;

Investigation of accidents and complaints of safety hazards involving conflicting statements from witnesses, incomplete records and unusual equipment or operations. Uses experienced judgment in developing new techniques to solve difficult and complex problems.

5. **Scope and Effect**

Performs a variety of safety, complaint, and accident investigations at highway-rail grade crossings and at railroad facilities within the State or assigned territory. Inspections and investigations are conducted to identify safety and health hazards that railroad management are obligated to correct. If safety hazards pose an immediate danger, railroad equipment may be taken out of service by the railroad until repairs are made. Some safety and health hazards identified by the inspector may require coordination and/or cooperation with other Federal, State and local agencies to achieve resolution. Human behavior problems regarding highway-rail grade crossing safety may require working in conjunction with civic organizations and other public institutions.

Failure of the carrier to comply with the Federal regulations when unsafe conditions are called to their attention by the inspector can result in a monetary penalty through the process of the Claims Collection Procedures of the U.S. District Court.

Activities performed by the inspector have a significant impact on the railroad industry and the safety of the motoring public.

6. **Personal Contacts**

Most contacts are with railroad employees, managers, manufacturers' representatives and union officials at various railroad locations and facilities. Contact with managers of other Federal, State, and local agencies, safety program managers, local elected officials and law enforcement official occur on a routine basis. Other contacts can involve citizens who are lodging complaints about unsafe railroad conditions or who are witnesses to motor vehicle-train accidents. Such contacts are usually not established on a routine or regular basis.

7. **Purpose of Contact**

The purpose of contacts is to maintain compliance with Federal safety and health regulations applicable to highway-rail grade crossing safety. Contact with Federal agencies such as the Federal Highway Administration, Federal Transit Administration, etc., other State agencies such as State DOT or PUC, other safety program managers may be required to resolve safety issues. While investigating complaints of unsafe conditions and accidents, the inspector must frequently interview witnesses who are unwilling to talk because of fear of reprisal or reluctant to being involved in possible legal action. The inspector may become involved in disagreements between railroad managers and union representatives regarding the existence of safety problems or the speed with which defects should be corrected. In those cases, tact and persuasiveness are required to reach a solution acceptable to both sides.
Manufacturers' representatives and suppliers are contacted in connection with new concepts, methods, or apparatus used to provide warning at highway-rail grade crossings.

9. **Work Environment**

Most inspection and investigation activities take place along active railroad tracks, where the employee must be alert for trains and avoid getting in switches and other moving parts. A hardhat, hearing protection, reflective vest, and safety shoes are usually worn. While conducting inspections and accident investigations, the employee is exposed to a variety of weather conditions and other environmental discomforts (mountainous and swampy locations). Inspections and tests are made on signal power lines and protective apparatus energized at voltages up to 6600 volts. Where third rail propulsion is used, voltages at 600 volts D.C. are located adjacent to the running rails. In A.C. electrified territory, the catenary system is energized to 11,000 volts. Inspectors are required to inspect signals and cables connected to highway-rail grade crossing systems in close proximity to the catenary system. Within rail yards and along the right of way, hazardous materials are transported in a variety of conveyances. At highway-rail grade crossing accidents, the inspector is frequently exposed to poisonous, explosive, and highly flammable commodities that could leak or suddenly ignite.

# Appendix 5

# Articles of Association
# Association of State Rail Safety Managers

# The Association of State Rail Safety Program Managers

## ARTICLES OF ASSOCIATION

### ARTICLE I
### Name

This Association shall be known as the Association of State Rail Safety Program Managers.

### ARTICLE II
### Purpose

The Association shall support, encourage, develop, and enhance railroad safety, especially through the Federal/State Railroad Safety Programs as established and defined by the Federal Railroad Safety Act of 1970, as amended, and other laws relative to railroad safety.

The Association shall promote railroad safety in all of the United States by encouraging consistent and uniform application and enforcement of railroad safety regulations and the promulgation of effective Federal regulations.

The objectives of the Association:

To enhance the exchange of ideas and encourage teamwork within the State Rail Safety Participation Program,

To promote professionalism within the State Rail Safety Participation Program,

To facilitate the exchange of information among the States and to aid all States in meeting their individual safety goals,

To ensure the interests of State Rail Safety Participation Program are effectively represented in all venues,

To encourage the growth and vitality of the State Rail Safety Participation Program,

To formulate consensus policy positions on State rail safety concerns and effectively communicate those positions.

## ARTICLE III
## Establishment of State Regions

The Association shall consist of the State managers from the following participating States:

**Region 1**
Maine
New Hampshire
New Jersey
New York

**Region 2**
Maryland
Ohio
Pennsylvania
Virginia
West Virginia

**Region 3**
Alabama
Florida
Mississippi
North Carolina
South Carolina
Tennessee

**Region 4**
Illinois
Minnesota

**Region 5**
Texas
New Mexico

**Region 6**
Iowa
Missouri
Nebraska

**Region 7**
Arizona
California
Nevada
Utah

**Region 8**
Montana
Idaho
Oregon
Washington

The Secretary shall update the list of active, participating States as changes occur.

## ARTICLE IV
## Regional Liaison

Regional Liaison: Shall be elected every two years by a majority vote of the Association Members from that region in attendance at the annual meeting.

## ARTICLE V
## Executive Committee

The eight Regional Liaisons shall comprise an executive committee which shall be the voting members representing each region.

## ARTICLE VI
## Association Officers

**President:** Duties shall include chairing the Association's annual business meeting and meetings of the executive committee; appointing Association delegates; representing the Association in formal communications with the Federal Railroad Administration (FRA) and other organizations; dissemination of all appropriate information to all State managers; and, coordinating preparation and transmission of Association policy positions.

**Vice President:** Duties shall include assisting and supporting the President in executing the President's duties. If the President vacates the office or is incapacitated, the Vice President shall assume the position of President.

**Secretary:** Duties shall include recording official actions of the Association, including amendment of Association bylaws.

## ARTICLE VII
## Terms Of Office

The President, Vice-President and Secretary shall be elected from the executive committee every two years by a majority of Association members in attendance at the annual meeting. In the event of a vacancy of the President's position, the Vice President shall assume the duties of the President and the Vice President's position shall be filled by a vote of the executive committee until the next annual meeting. In the event of a vacancy of the Secretary's position, the position shall be filled by a vote of the executive committee until the next annual meeting. A vacancy in the executive committee shall be filled by a vote of participating Association members of the affected region. An Association officer may be removed from office by an affirmative vote of five members of the executive committee.

## ARTICLE VIII
## Operating Procedures

### Association Policy Positions

The executive committee shall formulate Association policy positions on matters pertaining to the State Rail Safety Participation Program and safe rail transportation issues. State managers may propose an Association policy position by presenting a written recommendation for action to their Regional Liaison. The Regional Liaison will forward the policy position recommendation to the executive committee, which will meet by conference call to discuss the merits of the recommended policy position. All policy positions proposed by State managers will receive full consideration.

The recommended policy position must receive approval from a majority of the executive committee to merit further Association action. If the recommended policy position is supported by the executive committee, a draft policy position will be prepared by an Association Delegate appointed by the President pursuant to the Association Delegates section.

State managers' interest in the proposed policy position will be sought by the Association Delegate. The Association Delegate shall give equal consideration to all State managers' comments in the development of content of written statements or oral presentations drafted to express Association viewpoints. Policy positions drafted or developed by an Association Delegate must be adopted by a majority vote of the executive committee. Any policy position developed pursuant to this section will serve as the formal position of the Association.

Individual member States are not precluded from adopting positions that do not agree with policy positions of the Association.

**Association Delegates**

The President may appoint an Association delegate (a State manager, or another individual approved by the State manager of his/her State) to prepare draft Association policy positions, to advocate an adopted position in appropriate venues, or to obtain or provide information at outside meetings, conferences, workshops, or other forums. The State manager of the delegate's State shall keep the Association informed of all delegate activities.

**State/FRA Conflict Resolution**

State managers may ask the executive committee to intervene in conflicts with FRA Regional Administrators which cannot be resolved between the State manager and the Regional Administrator. The State manager should report the conflict to his/her Regional Liaison to enlist the aid of the Association in conflict resolution. The Regional Liaison will advise the President of the conflict issue. The President will arrange a conference call with the executive committee to discuss the conflict and to determine appropriate steps to resolve the matter. The State manager reporting the conflict will be fully apprised of all executive committee actions pertaining to conflict resolution.

## ARTICLE IX
## Amendment of Articles of Association

State managers may propose an amendment to the Articles of Association by presenting a written recommendation for action at the annual meeting. An amendment to the Articles of Association must receive a majority of all votes cast to be approved. Approved amendments will be forwarded to the Association Secretary to be incorporated into the Articles of Association. The Secretary shall distribute the amended Articles of Association to all State managers.

| | |
|---|---|
| Articles Adopted: | May 21, 1998 |
| Articles Amended: | August 24, 1999, providing for the President to appoint Association Delegates. |
| Articles Amended: | May 10, 2001, extending the term of office for the Executive Committee and the President and Vice President from one to two years. |

# Appendix 6

# User Fee Summary

## Summary of State User Fees
## Supporting State Rail Safety Participation Programs

**AL** Each transportation company, including any railroad or part of a railroad in this state or any cars or other equipment used thereon, or bridges, terminals or sidetracks used in connection therewith, whether owned by such railroad or otherwise for hire; any railroad depot or terminal station; doing business in this state and subject to the control and jurisdiction of the Commission with respect to its rates and service regulations, shall pay quarterly to the Commission, beginning November 1, 1985 and on each quarter thereafter, February 1, May 1, August 1, and November 1 of each year, a fee for the inspection and supervision of such business during the next preceding fiscal year. Such fees shall be ascertained as follows: A fee of $2.85 per $1,000.00 for the first $100,000.00 or less of such gross receipts; a fee of $2.35 per $1,000.00 for each additional $1,000.00 of such gross receipts up to and including $1,000,000.00 thereof; a fee of $1.85 per $1,000.00 for each additional $1,000.00 of such gross receipts over $1,000,000.00 thereof, but in no case shall said fee be less than $25.00, which shall be the minimum inspection and supervision fee to be paid by any transportation company. The maximum amount to be paid for any one year, by any such transportation company operating any railroad, or part of a railroad in this state, shall be $5,000.00.

**CA** Only freight railroads pay the fee. Of the total fees collected each year, UPRR and BNSF pay about 95% and the shortline railroads pay the remaining 5% (based on gross revenues). Passenger/commuter rail and crossing safety activities are funded by other state accounts. The 95%-5% split between class 1s & shortlines is based on gross intrastate freight revenues. The split between UP & BNSF was agreed to in 1992 by the then 4 Class 1s(SP, UP, ATSF, BN)as to what percentage each would pay of the Class 1 share of the annual fee. The 4 class 1s presented their proposal to the Commission and the Commission adopted their proposal. No formula was presented, but we believe the percentages did reflect each RRs operations in CA. After the mergers, UP pays about 70% & BNSF 30% of the class 1 share. The 5% shortline share is allocated to each shortline based on gross revenues. Each May, the Commission, adopts a Resolution assessing the fees on each of the regulated utilities based on the budget needed to fund next fiscal year's activities. UP's & BNSF's fee is an actual dollar amount and the shortline's is a percentage (this does change from year to year) of their gross revenues.

**ID** Idaho assesses the railroads a fee based upon the gross intrastate operating revenues to cover the upcoming fiscal year appropriated budget. We can assess up to one percent of their gross intrastate operating revenues if need be. Right now we are at about 90% of that amount.

**IL** In Illinois, railroads are assessed fees based on route miles and number of grade crossings. Fees are assessed annually, and are due Feb. 1 ($37/route mile; $23/crossing). The Illinois Commerce Commission (ICC) sends notices out in late December/early January. The ICC also utilizes the Grade Crossing Protection Fund (GCPF), which receives $42 million/year in state motor fuel tax receipts, to support rail safety activities in Illinois.

**MD** The Maryland Railroad Safety and Health program is a General Fund program, with a designated source. Each year our projected operating costs are submitted to and collected by the PSC. The PSC then reimburses the General Fund for actual expenses. Reimbursement costs for operating RS&H are derived from, a portion of the less than two tenth's of one percent, assessment applied to the utilities/railroads that operate in the State of Maryland.

**MN** Minnesota Statutes 2012, section 219.015, subdivision 2, Railroad company assessment; account; appropriation.
(a) As provided in this subdivision, the commissioner shall annually assess railroad companies that are (1) defined as common carriers under section 218.011 (2) classified by federal law or regulation as Class I Railroad Class I Rail Carriers, Class II Railroads, or Class II Carriers; and (3) operating in this state
(b) The assessment must be by a division of state rail safety inspector program costs in equal proportion between carriers based on route miles operated in Minnesota, assessed in equal amounts for 365 days of the calendar year. The commissioner shall assess all start-up or re-establishment costs, all related costs of initiating the state rail safety inspector program. And ongoing state rail inspector duties.
(c) The assessments must be deposited in a special account in the special revenue fund, to be known as the state rail safety inspection account. Money in the account is appropriated to the commissioner for the establishment and ongoing responsibilities of the state rail safety inspector program.

**MS** Mississippi collects $201,000 each year from the Railroads operating in Mississippi. This amount is split between the affected RR companies based on track miles. This covers about 40% of the Rails Division Budget each year. The remainder is paid out of highway money.

**MO** Missouri assesses railroads fees based upon gross intrastate operating revenues for the preceding calendar year for the upcoming fiscal year appropriated budget. Assessments collected are not to exceed 3 percent of the total reported by all railroads, with the following adjustments:

<50 Miles of track - minimum of $100 and Maximum of $500
>50 miles but < 100 miles - not less than $1,000
>100 miles - not less than $5,000

**MT** In Montana each railroad company pays a PSC funding fee based on the company's proportional share of total gross operating revenue from all regulated activity in the state, as determined by the Montana Department of Revenue. The fees are adjusted annually with the goal of matching total fee collections from all regulated activity and the Public Service Commission's current budget appropriation. See Mont. Code Ann. §§ 69-1-402 and 69-1-224.

**NV** The Public Utilities Commission of Nevada (PUCN) finances the expenditures related to Railroad Safety. The Union Pacific Railroad (UPRR) and the Burlington Northern Santa Fe (BNSF) are the two freight carriers currently operating in Nevada. Each is required to file an annual report with the Commission, and from this report we obtain the total tonnage (originating in, terminating in, and traversing Nevada). The PUCN takes the total Railroad Safety expenditures and subtracts out the other Railroad Safety revenue collected from the Beatty Dump and Nevada Test Site. This provides the remaining revenue that needs to be collected from the freight carriers. From this information, the PUCN determines the assessment rate to use to get the revenue needed based on the UPRR's and BNSF's individual tonnage multiplied by the rate. The PUCN then invoices both the UPRR and BNSF for their respective assessments. The PUCN's Railroad Safety expenditures are fully reimbursed at 100-percent of every dollar charged to the Railroad Safety program.

**NH** New Hampshire does not assess a user fee. Railroads pay property tax on right of ways and other owned parcels. These monies go into the general fund. All railroad activities, including the expenses of our rail bureau, which includes the State Railroad Inspector/Investigator, are paid for from this fund.

**NJ** Effective June of 1993, NJ established a fee or $3 per placarded car originating or terminating in the State and all railroads operating in the State are required to annually report that number of placarded cars. Moneys received are to defray the expenses of a "Placarded Rail Freight Car Transporting Hazardous Materials Program" subject to appropriation from the General Fund. A formula for increasing this fee, limited to increases in the CPI-W, was also enacted.

**NY** The NYS "Rail Safety Fee" was added to the State Transportation Law, as Section 135, in 1991. The annual fee is "in an amount sufficient to raise funds to defray the expenses of the department (DOT) in administering and enforcing its railroad safety and related duties pursuant to the provisions of (the Transportation Law) and the Railroad Law". The fee is assessed against all railroads operating in the State of New York and is based on railroad gross operating revenues derived or earned from operations within the state in the proceeding calendar year".

**OH** All public utilities and railroads operating in Ohio pay an annual assessment to the Commission based upon a percentage of that company's intrastate gross earnings from the previous year. The percentage is calculated by dividing the total intrastate gross revenue of all regulated utilities and railroads into the amount of money appropriated to the Commission by the legislature that year.

The Commission also has the statutory authority to assess the costs of an investigation to the regulated company that is the subject of the investigation which we have done a time or two involving a railroad.

**PA** The Pennsylvania Commission imposes an annual assessment on jurisdictional utilities, which includes railroads, that is based on intra state operational revenues. The assessment factor for a utility group is calculated by dividing the amount of the Commission's budget that is allocated to that group by the total intrastate revenues reported by the group. A company's annual assessment amount is determined by applying the assessment factor to the intrastate revenues reported by the individual companies within that utility group.

**OR** The Rail Safety Section, which includes state and FRA programs, receives funding from a railroad user fee. This fee pays for 100% of the costs of these programs. The amount needed to operate the program for the upcoming year is estimated and assessed the railroads. Class I railroads' share is based on the number of track miles, the number of grade crossings and gross operating revenues for the previous year. Short line railroads are assessed based on last year's gross operating revenues only. The amount to be assessed for the next year is modified based on any positive or negative balances from the previous year.

The Crossing Safety Section also receives funding from the railroad user fee based on the same formula as above. This fee pays for 50% of the cost to operate this program with the other 50% coming from the Grade Crossing Protection Account (GCPA) which is derived from Motor Vehicle Registration fees. ODOT Rail receives $600,000 a year from the GCPA. Any GCPA amounts in excess of operating costs for the above program are used for crossing projects or as a match for federal Section 130 dollars.

**SC** The Gross Receipts assessment is determined by multiplying the total receipts amount that the RR reported on their Gross Receipt report by a factor of .004455396.

Example: Lancaster & Chester reported Gross Receipts of $181,367 and their tax assessment was $808.00.

**TN** Tennessee's user fee is assessed against the actual ton miles operated annually by each railroad operating in the state. The fee to be assessed is (4 cents) per one thousand ton miles. This fee is effective on payments made on or before July 1, of each year. (There is a minimum fee required)

**TX** One hundred percent (100%) of the program is funded by assessment. Class I contribution prorated on the basis of gross ton miles.

**VA** Railroad companies in Virginia are subject to a "special revenue tax" equal to two-tenths of one percent of the gross receipts from business done within the Commonwealth of Virginia. Further, the amount of special revenue tax paid by railroads shall not exceed the estimated expenses incurred by the Commission and the Department of Taxation reasonably attributable to the regulation and assessment for taxation of railroads, including a reasonable margin in the nature of a reserve fund.

**WA** Railroads operating in the State of Washington pay 1.5% of gross intrastate revenue. Railroads that haul oil in the State of Washington pay 2.5% of gross intrastate revenue. "Intrastate" is defined as a shipment that originates and terminates within the state.

**WV** Property assessments are not to exceed ten cents per one hundred dollars of value of property as ascertained by the last assessment. Intrastate revenue assessments are not to exceed forty cents on each hundred dollars of total gross revenue in the previous calendar year. The intrastate revenue is reported by the railroad each year.

# Appendix 7

# Glossary and Acronyms

**GLOSSARY (Reprinted from the FRA General Manual)**

**Absolute Permissive Block System (APB)**: Block signal system under which the block is usually from siding to siding for opposing movement and the fixed signals governing entrance into the block display an aspect indicating Stop when the block is occupied by an opposing train.

For following movements, the section between sidings is divided into two or more blocks and train movements into these blocks, except the first one, are governed by intermediate fixed signals, cab signals, or both. The intermediate fixed signals usually display an aspect indicating Stop; then Proceed at Restricted Speed, and the cab signal displays and aspect indicating Proceed at Restricted Speed, as its most restrictive indication.

**Acceptance**: consent to the terms of an offer, which consent creates a contract. The right to reject is implied.

**Agent**: One who, by mutual consent, acts for the benefit of another; one authorized by a party to act in that party's behalf.

**Alcohol**: Intoxicating agent in beverage alcohol, ethanol, or other low molecular weight alcohols including methyl or isopropyl alcohol.

**Alcohol concentration (or content)**: Alcohol in a volume of breath expressed in terms of grams of alcohol per 210 liters of breath (as indicated by a breath test under 49 CFR 219) or grams of alcohol per 100 milliliters of whole blood.

**Alerter**: A device or system installed in the operator cab to promote continuous, active operator attentiveness by monitoring select operator induced control activities. If fluctuation of a monitored operator control is not detected within a predetermined, speed dependent alerter reset time period, a sequence of audible and visual alarms is activated so as to progressively prompt a response by the operator. Failure by the operator to institute a change of State in a monitored control, or acknowledge the alerter alarm activity through a manual reset provision, results in a penalty brake application, bringing the locomotive, consist, or train set to a stop at a service rate.

**Alignment**: Horizontal location of a railroad as described by curves and tangents.

**Anti-Climber Engagements**: Parts of the ends of adjoining train set units that are designed to engage - when the units are subjected to large buff loads - to prevent lateral or vertical buckling of the train set.

**Approach Circuit**: A circuit generally used in connection with announcing the approach of trains at a block or interlocking station.

**Signal Aspect**: Appearance of a fixed signal conveying an indication as viewed from the direction of an approaching train; appearance of a cab signal conveying an indication as viewed by an observer in the cab.

**Automatic Block Signal System (ABS)**: Series of consecutive blocks governed by block signals, cab signals, or both, actuated by a train, or engine, or by certain conditions affecting the use of a block.

**Automatic Train Control System (ATC)**: A track-side system working in conjunction with equipment installed on the locomotive, so arranged that its operation will automatically result in the application of the air brakes to stop or control a train’s speed at designated restrictions, should the engineer not respond. ATC usually works in conjunction with cab signals.

**Back Light (Grade Crossing Signal)**: Auxiliary signal light used for indication in a direction opposite to that provided by the main unit.

**Ballast**: Selected and graded materials placed on the subgrade to support the track, and to promote drainage.

**Batter**: Surface deformation of the rail head in the immediate vicinity of the end.

**Bent**: Combination of driven piles and cap; or posts, sill, and cap; that support a trestle.

**Bind**: To restrict the intended movement of one or more brake system components by reduced clearance, by obstruction, or by increased friction.

**Blending Valve**: A device which combines the maximum available dynamic brake retarding force with supplemental air brake retarding force.

**Block**: Length of track of defined limits, the use of which by trains and engines is governed by block signals, cab signals, or both.

> **Absolute**: Block in which no train is permitted to enter while it is occupied by another train.
>
> **Permissive**: Block in manual or controlled manual territory, based on the principle that a train other than a passenger train may be permitted to follow a train other than a passenger train in the block.

**Block Signal System**: Method of governing the movement of trains into or within one or more blocks by block signals or cab signals, or both.

**Block of Cars**: One or more cars coupled together for the purpose of being added to, or removed, from a train as a unit.

**Brake, Air**: A combination of devices operated by compressed air, arranged in a system, and controlled manually or pneumatically, by means of which the motion of a car or locomotive is retarded or arrested.

**Brake Application (Full Service)**: Application of the brakes resulting from a continuous or split reduction in brake pipe pressure at a service rate until maximum brake cylinder pressure is developed.

**Brake Control System**: Components including software that either automatically, or under the control of the engineer, cause changes in the retarding force applied to the train by the brake system.

**Brake, Conventional Air**: An air brake system designed in accordance with the current Manual of Standards and Recommended Practices of the Association of American Railroads.

**Brake, Disc**: A retardation system used on some rail vehicles, primarily passenger equipment, that utilizes flat metal discs as the braking surface instead of the wheel tread.

**Brake, Disc Friction**: A wheel-mounted or axle-mounted disc that provides a braking surface for the friction shoes.

**Brake, Dynamic**: A train braking system whereby the kinetic energy of a moving train is used to generate electric current at the locomotive traction motors, which is then dissipated through banks of resistor grids in the locomotive car body or back into the catenary or third rail system.

**Brake, Effective**: A brake that is capable of producing its required design retarding force on the train.

**Brake, Hand**: A system installed on individual railroad cars and locomotives to provide a means to apply brakes independently of power brakes.

**Brake Indicator**: A plunger type device directly actuated by brake cylinder pressure which indicates that brakes are applied or released.

**Brake, Inoperative**: A primary brake that, for any reason, no longer applies, releases or is otherwise ineffective.

**Brake, On-Tread Friction**: A braking system that uses a brake shoe, made of a composition material that acts on the tread of the wheel to retard the vehicle.

**Brake Pipe**: A system of piping (including branch pipes, angle cocks, cutout cocks, dirt collectors, hoses, and hose couplings) used for connecting locomotives and all cars for the passage of air to control the locomotive and car brakes.

**Brake, Primary**: Those components of the train brake system used to calculate stopping distances upon which signal spacing is based or necessary to prevent thermal damage to wheels of the train.

**Brake, Secondary**: Those components of the train brake system which develop supplemental brake retarding force that is not needed to stop the train within signal spacing distances or to prevent thermal damage to wheels.

**Brake Shoes/Pads Aligned with Tread/Disc**: The brake shoe/pad surface engages the wheel tread or disc surface with no more than a ¼ inch overhang on locomotives and passenger and commuter equipment.

**Brake System Failure**: Situation when the brake system does not apply or release in response to commands, or another significant departure from the intended operation occurs, which requires replacement or restoration of a component to correct. Misadjustment, damage from external sources, or wear out of consumable items are not considered failures. For the purposes of this definition, Brake System includes the shoes/pads, cylinders, rigging, piping, valves and controllers required to apply and release the service and emergency brakes. Accessory equipment used to hold cars or locomotives stopped, provide quick recharge of brake pipe or indicate status of the system is not included.

**Braking Distance**: Maximum distance on any portion of any railroad which any train, operating on such portion of railroad at its maximum authorized speed, will travel during a full service application of the brakes, between the point where such application is initiated and the point where the train comes to a stop.

**Braking System, Blended**: A braking system in which the primary brake and one or more secondary brakes are automatically combined to stop the train. If the secondary braking system(s) are unavailable the blended brake uses the primary brake alone to stop the train.

**Branch Line**: A secondary line of a railway as distinguished from the main line.

**Branding**: Identification markings on the rail Web.

**Bridge Tie**: Transverse timber member resting on the stringers and supporting the rails. Also a sawed tie usually pre-framed and of the size and length required for track on a bridge.

**Broken Base**: Any break in the base of rail.

**Broker**: One who, for commission or fee, brings parties together and assists in negotiating contracts between them.

**Cab Indicator**:

**(Audible)**: A device located in the cab which is designed to sound under predetermined Conditions.

**(Visual)**: A signal located in the cab indicating a condition affecting the movement of a train or engine.

**Cab Signal System**: System which provides for the automatic operation of cab signals.

**Cant**: Inward inclination of the rail effected by using inclined-surface tie plates or sloped rail seats with concrete ties.

**Cap**: Horizontal member on top of a bent's piling.

**Car Retarder**: An in-track braking device designed to reduce the speed of rolling equipment during switching operations.

**Carbon Steel**: Steel containing the elements carbon, manganese, phosphorus, sulfur, silicon, iron, and other trace elements.

**Centralized Traffic Control (CTC)**: Term applied to a system of railroad operation by means of which the movement of trains over routes and through blocks on a designated section of track or tracks is directed by signals controlled from a designated central point.

**Circuit Controller**: Device for opening and closing electric circuits.

**(Movable Bridge)**: Device for opening and closing electric circuits between the stationary and movable bridge spans.

**(Switch)**: Device for opening and closing electric circuits which is operated by a rod connected to a switch, derail, or movable point frog.

**Class 1 Passenger Train Safety Inspection**: A complete train brake system test combined with a mechanical safety inspection of all safety critical components and systems performed by qualified mechanical forces.

**Class 1a Train Brake System Test**: A test and inspection by visual observation of each component of the air brake system on each car in a train to ensure the air brake system is 100 percent effective.

**Class 2 Train Brake System Test**: A test of brake pipe integrity and continuity from controlling locomotive to rear car, after the brake pipe has been extended or divided by adding or removing cars or locomotives at an intermediate terminal.

**Classification Yard**: A rail yard consisting of a number of usually parallel tracks, used for making up trains.

**Clearance Point:** Location on a turnout at which the carrier's specified clearance is provided between tracks.

**Closed Circuit Principle**: Principle of circuit design where a normally energized electric circuit which, on being interrupted or de-energized, will cause the controlled function to assume its most restrictive condition.

**Collapsed Head**: Flattening or collapsing of the rail head, not involving Web deformation.

**Collision Posts**: Members of the end structure of a rail vehicle projecting upward from the under-frame to which they are securely attached, which provide protection of occupied compartments from penetration during a collision.

**Compound Fissure**: Progressive fracture originating in a horizontal split head which turns up or down in the rail head.

**Compromise Joint**: Rail joint designed to connect abutting ends of contiguous rails of different sections, or rails of the same section but of different joint drillings.

**Confirmation Test:** A second test, following a screening test with a result of .02 or greater, that provides quantitative data of alcohol concentration.

**Continuous Welded Rail**: Several rails welded together in lengths of 400 feet or more.

**Control Cooling**: Method of controlling the cooling rate of steel products which allows elimination of internal hydrogen inclusions.

**Control Valve**: That part of the air brake equipment on each car or locomotive that controls the charging, application, and release of the air brakes.

**Controlled Point**: Location where signals or other functions or both of a traffic control system are controlled from the control machine.

**Corner Post**: A rail vehicle structural member that extends vertically from the floor support structure to the roof support structure located at the intersection of the front or rear surface with the side surface of the vehicle. Corner posts may be part of the end structure.

**Corrosion**: Dissolving away of the surface of metal through chemical action.

**Corrugated Rail**: Rough condition on the rail head surface seen as alternate ridges and grooves, which develops in service.

**Covered Employee**: A person who has been assigned to perform service subject to the Hours of Service Act (45 U.S.C. 61-64b) during a duty tour, whether or not the person has performed or is currently performing such service, and any person who performs such service. (For the purposes of pre-employment testing only, the term covered employee includes a person applying to perform covered service.)

**Crack**: A fracture without complete separation into parts.

**Crash Energy Management**: An approach to the design of passenger rail equipment which controls the dissipation of energy during a collision. For example, high structural strength can be provided in the occupied volumes for crew and passengers, and lower strength, energy absorbing structures can be provided in unoccupied volumes. A CEM system can also be used to assist in providing anti-climbing resistance and to reduce the risk of jackknifing during a collision. Also, energy deflection could be considered as part of a CEM strategy.

**Crash Energy Management System**: Structural design techniques whereby unoccupied compartments or volumes of a rail vehicle are designed to be less strong than occupied compartments or volumes. The weaker compartments are designed to collapse in a controlled fashion to absorb or dissipate as much of the collision energy as possible.

**Crash Refuge**: A volume with extreme structural strength designed to maximize the survivability of crew members stationed in the locomotive cab during a collision.

**Creosote**: Coal tar distillate which is applied to timber to preserve the wood fibers.

**Crib**: Lateral space between two adjacent ties.

**Critical Buckling Stress**: Minimum stress necessary to initiate buckling of a structural member.

**Crossing**: Structure allowing two tracks to cross each other at grade. (An intersection of a road and railroad tracks is called a grade crossing.)

**Crossover**: Two turnouts joined by closure rails which unite two nearby and generally parallel tracks.

**Current of Traffic**: The movement of trains on a main track, in one direction, specified by the rules.

**Curve, Compound**: Continuous change in the direction of alignment by means of two or more contiguous simple curves of different degree, having a common tangent at their junction points.

**Curve, Degree**: Number of degrees of central angle subtended by a chord of 100 feet.

**Curve, Easement**: Curve whose degree varies either uniformly or in some definitely determined manner so as to give a gradual transition between a tangent and a simple curve, which it connects, or between two simple curves.

**Curve, Reverse**: Curve composed of two simple curves joined at a common tangent or by a short tangent track or a reverse easement curve, and seen in the opposite direction.

**Curve, Simple**: Continuous change in direction by an arc of a single radius.

**Curve, Vertical**: Connecting curve to intersecting grade lines.

**Cut-Section**: Location other than a signal location where two adjoining track circuits end within a block. (Relayed) Cut-section at which the energy supply to one track circuit is controlled by the adjoining track circuit.

**Dark Territory**: Non-signaled territory (colloquial).

**Decay**: Disintegration of wood fibers caused by wood-destroying fungi.

**Delay Time**: (Train stop, train control, etc.) Time which elapses after an automatic brake application is initiated until the brakes start to apply.

**Derail**: A safety device, attached to one rail of a siding or storage track that will cause a car to be derailed in the event it rolls free towards a main track where it could cause a major accident.

**Detail Fracture**: Progressive fracture originating at or near the gage corner of the rail head. Such fractures differ from transverse and compound fissures and other defects which have internal origins.

**Disc Brake Rotor**: A rotating disc attached to a wheel or axle which absorbs friction braking energy.

**Drug**: Any substance (other than alcohol) that has known mind or function-altering effects on a human subject, specifically including any psychoactive substance and including, but not limited to, controlled substances.

**Dynamic Braking**: A term used to describe a method of train braking whereby the kinetic energy of a moving train is used to generate electric current at the locomotive traction motors, which is then dissipated through banks of resistor grids in the locomotive car body or back into the catenary or third rail option.

**Effective Brake Shoe/Pad Limits**: A condemning thickness of on-tread brake shoes of ½ inch for cast metal and  inch for composition shoes/pads, excluding the backing plate on composition shoes/pads.

**Electric Locking**: Combination of one or more electric locks and controlling circuits by means of which levers of an interlocking machine are locked, or the equivalent using circuits only, so that switches, signals, or other units operated in connection with signaling and interlocking, are secured against operation under certain conditions.

> **(Approach)**: Electric locking effective while a train is approaching, within a specified distance, a signal displaying an aspect to proceed, and which prevents, until after the expiration of a predetermined time interval after such signal has been caused to display its most restrictive aspect, the movement of any interlocked or electrically locked switch, movable point frog, or derail in the route governed by the signal, and which prevents an aspect to proceed from being displayed for any conflicting route.
>
> **(Detector Indication)**: Electric locking which prevents manipulation of levers that would result in an unsafe condition for a train movement if a signal, switch, or other operative unit fails to make a movement corresponding to that of its controlling lever, or which directly prevents the operation of a signal, switch, or other operative unit, in case another unit which should operate first fails to make the required movement.
>
> **(Route)**: Electric locking, effective when a train passes a signal displaying an aspect for it to proceed, which prevents the movement of any switch, movable point frog, or derail in advance of the train within the route entered. It may be so arranged that as a train clears a track section of the route, the locking affecting that section is released.
>
> **(Section)**: Electric locking effective while a train occupies a given section of a route and adapted to prevent manipulation of levers that would endanger the train while it is within that section.
>
> **(Time)**: Method of locking, whether mechanical or electrical, which, after a signal has been caused to display an aspect to proceed, prevents, until after the expiration of a predetermined time interval after such signal has been caused to display its most restrictive aspect, the operation of any interlocked or electrically locked switch, movable point frog, or derail in the route governed by that signal, and which prevents an aspect to proceed from being displayed for any conflicting route.
>
> **(Traffic)**: Electric locking which prevents the manipulation of levers or other devices for changing the direction of traffic on a section of track while that section is occupied or while a signal displays an aspect for a movement to proceed into that section.

**Electro-pneumatic Brake**: A braking system used on high-speed electric passenger trains. Brakes are applied and released on each car through the action of electro-pneumatic valves energized by current taken from contacts on the motorman's brake valve and continuous train wires. Brakes can be applied instantaneously and simultaneously with this device, eliminating undesirable slack action and providing more positive control of train speed.

**Elevation (Super-elevation)**: Vertical distance that the outer rail is above the inner rail on a curve.

**Emergency Application**: A brake application resulting in the maximum retarding force available from the train brake system.

**End Structure**: The main support structure projecting upward from the floor or under frame. The end structure is securely attached to the under frame at each end of a passenger vehicle or power vehicle.

**Engine Burn Fracture**: Rail failure which originates in spots where driving wheels have slipped on top of the rail head. In developing downward, it frequently resembles the compound or even transverse fissure, with which it should not be confused or classified.

**Exemption**: A granted relief from a regulation based on the grantee's maintenance of equivalent levels of safety or levels of safety consistent with the public interest.

**Facing Point Switch**: Track switch, the points of which face traffic approaching in the direction for which the track is signaled.

**Fail Safe**: Term used to designate a railway signaling design principle, the objective of which is to eliminate the hazardous effects of a failure of a component or system.

**False Proceed**: Failure of a system, device, or appliance to indicate or function as intended, which results in less restriction than is required.

**False Restrictive**: Failure of a system, device, or appliance to indicate or function as intended which results in greater restriction that is required.

**False Restrictive Aspect**: Aspect of a signal that conveys an indication more restrictive than intended.

**Fastenings**: Joint bars, bolts, spikes, or other alternatives to spikes, used in track construction.

**Flange way**: Part of a track structure that provides a passageway for wheel flanges.

F**lat Switching**: Switching movements in a yard where cars are moved by a locomotive on relatively level tracks as opposed to over a hump.

**Flat Yard**: A yard where car switching is dependent on locomotive power with little assistance from gravity.

**Foul**: To restrict the intended movement of one or more brake system components because it became snagged, entangled, or twisted.

**Fouling Circuit (Shunt):** Track circuit in the fouling section of a turnout, which is connected in multiple with the track circuit in the main track.

**Fouling Point**: Location on a turnout in back of the frog at which insulated joints or derails are placed at or beyond the clearance point.

**Fouling Section**: Section of track between the switch points and the fouling point in a turnout.

**Freight Forwarder**: A person who, having no interest in goods and no ownership or interest in the means of their carriage, forwards them, for hire, by safe carrier to their destination.

**Frog**: Track structure used at the intersection of two running rails to support the wheels and passageways for flanges, permitting wheels on either rail to cross over the other.

**Frog, Rigid**: Rolled carbon steel rail stocked with filler block and frog bolts. Unlike other types of frogs, the rigid frog has no manganese steel insert.

**Frog, Spring Rail**: Frog having a moveable wing rail, normally abutting the frog point held by springs, horns, and hold-down, which provides a gapless (impact-free) transition from one rail to another.

**Frog, Railbound Manganese Steel (RBM)**: Structure of a manganese steel body casting (which reduces wear) abutting stocked rolled rails and fastened with frog bolts.

**Frog, Self Guarded**: Frog, normally constructed of manganese steel casting, which has rim face guides and flange ways. This type of frog can be used without rail bars, and is used on slow-speed tracks such as those in rail yards.

**Fuel Tank, Integral**: A fuel containment volume that is integral with some other structural element of the locomotive not designed solely as a fuel container.

**Full Height**: (Pertains to collision post, corner post and side frame post): Any vertical framing member in the car body structure that spans the distance between the under frame and the roof at the car body section where the post is located. For collisions posts located at the approximate third points of an end frame, the term full height shall apply to posts that extend and connect to supporting structural members in the roof at the location of the posts, or to a beam connected to the tops of the end-frame and supported by the roof rails (or anti-telescoping plate), or to both.

**Full Service Application**: A brake application which results from one or more brake pipe reductions sufficient in amount to cause a full service reduction.

**Gage Line**: Line 5/8 inches below the top of the center line of the head of running rail along that side which is nearer the center of the track.

**Gauge**: Tool or device that measures the gage-face distance between in-track rails. (Standard gage is 4 feet, 8 ½ inches.)

**Glazing, End Facing**: A glazing panel where a line perpendicular to the exterior surface of the panel makes an angle of 50 degrees or less with the longitudinal center line of the train set unit in which the panel is installed.

**Glazing, Exterior**: A glazing panel that is an integral part of the exterior skin of the train set with a surface exposed to the outside environment.

**Glazing Frame**: The arrangement used to install the glazing into the structure of the train set unit.

**Glazing, Interior**: A glazing panel with no surface exposed to the outside environment and which is protected from projectiles by the structure of the train set.

**Glazing, Side Facing**: A glazing panel where a line perpendicular to the exterior surface of the panel makes an angle of more than 50 degrees with the longitudinal center line of the train set unit in which the panel is installed.

**Grade (Degree of)**: As used in connection with railway line, ascent or descent of track from the horizontal position and expressed as the vertical rise or fall per 100 feet of horizontal length.

**Grade Crossing**: An intersection of a highway with a railroad at the same level. Also, an intersection of two or more railroad tracks at the same elevation.

**Guard Check Gage**: Distance between the guard line and gage line, measured across the track at right angles to the gage line.

**Guard Face Gage**: Distance between guard lines, measured across the track at right angles to the gage lines.

**Guard Rail**: Rail or other structure laid parallel with the running rails of a track to prevent wheels from being derailed; or to hold wheels in correct alignment to prevent their flanges from striking the points of the turnout, crossing frogs, or points of switches.

**Handrails**: Safety appliances installed on either side of train-set exterior doors to assist passengers and crew to safely board and depart the train set.

**Hazardous Materials Transportation Act (HMTA)**: The Hazardous Materials Transportation Act of 1974 (Public Law 93 -633; 49 app. U.S.C. 1801 et seq.).

**Hazardous Materials Regulations (HMR)**: Title 49 Code of Federal Regulations, Parts 100-185.

**Hazardous Material (HM)**: A substance or material which the Secretary of Transportation has determined poses an unreasonable risk to health, safety, and property when transported in commerce. (See the “Condensed Chemical Dictionary” for a detailed listing of hazardous materials.)

**Hazardous Material Incident**: A hazardous material event that requires the submission of DOT Form 5800.1. See 49 CFR 171.15 and 171.16.

**Head Block Signal**: Home signal governing entrance into the block between sidings on single track.

**Head End Power (HEP)**: Power generated aboard the power vehicle used as hotel power for the passenger vehicles.

**High and Wide**: A term referring to outside dimensions of a car or open top load that exceeds the normal clearances on the route to be traveled.

**Home Signal**: A fixed signal at the entrance of a route or block to govern trains or engines entering and using that route or block.

**Horizontal Split Head**: Horizontal progressive defect originating inside the rail head, generally 1/4 inch or more below the running surface, and progressing horizontally in all directions. The defect appears as a crack lengthwise of the rail when it reaches the side of the rail head.

**Hunting**: Lateral oscillations of a high speed passenger train-set truck that could lead to a dangerous instability. The hunting threshold for automatic alarm is defined as six or more consecutive oscillations having an acceleration of .8g peak-to-peak or more at a frequency between 1 and 10 Hz.

**In Advance of a Signal**: Term used to define the territory beyond a signal as seen from an approaching train.

**In Approach of a Signal**: Term used to define the territory to which a signal indication is conveyed.

**Indication (Signal)**: Information conveyed by the aspect of a signal.

**Indication Lock**: Electric lock which is connected to a lever of an interlocking machine to prevent the release of the lever or latch until the signals, switches, or other units operated, or directly affected by such lever, are in the proper position.

**Inspection**: Through observation or testing, determination of compliance or non-compliance by individuals or entities with established laws, rules, regulations, and standards.

**Inspection, Maintenance and Test Plan**: The document written by the system developer/operator which describes in technical detail all the inspections, maintenance and tests required for the train-set vehicles. This document becomes the basis for the train-set inspection, maintenance and test program.

**Interior Fittings**: Any auxiliary component in the passenger compartment which is mounted to the ceiling, sidewalls, or end walls, and projects into the passenger compartment more than one inch from the surface or surfaces to which it is mounted. Based on this definition, interior fittings do not include, for example, windows, or side and end wall, floor, door pockets, and ceiling lining materials.

**Interlocking**: An arrangement of signals and signal appliances so interconnected that their movements must succeed each other in proper sequence and for which interlocking rules are in effect. It may be operated manually or automatically.

**Interlocking, Automatic**: An arrangement of signals, with or without other signal appliances, which functions automatically as distinguished from those functions that are controlled manually, and which are so interconnected by means of electric circuits that their movements must succeed each other in proper sequence, train movements over all routes being governed by signal indication.

**Interlocking, Limits**: The tracks between the home signals of an interlocking.

**Interlocking Signals**: The fixed home signals of an interlocking.

**Interlocking Station**: A place from which an interlocking is operated.

**Intermittent Control (cab signal, train control, etc.)**: Type of control in which the locomotive apparatus is affected only at certain designated points, usually at signal locations.

**Investigation**: An inspection or study by close examination of and systematic inquiry about accidents, incidents, violations, or alleged violations of laws, rules, regulations, and standards.

**Joint**: Fastening designed to join the abutting ends of contiguous rails.

**Joint, Insulated Rail**: Joint in which electrical insulation is provided between adjoining rails to interrupt track signal circuits.

**Level**: Condition of the track in which the transverse elevation of the two rails is the same.

**Line**: Condition of the track regarding uniformity in direction over short distances on tangents, or uniformity of curvature over short distances on curves.

**Lock (Electric)**: Device used to prevent or restrict the movement of a lever, switch, or movable bridge, unless the locking member is withdrawn by an electrical device, such as an electromagnet, solenoid, or motor.

**Locomotive**: A piece of on-track equipment other than hi-rail, specialized maintenance, or other similar equipment which may consist of one or more units operated from a single control with (1) One or more propelling motors designed for moving other equipment; (2) With one or more propelling motors designed to transport freight or passenger traffic or both; or (3) Without propelling motors but with one or more controls.

**Locomotive Cab**: Compartment or space aboard a locomotive where the control stand is located and is normally occupied by the engineer when the locomotive is being operated.

**Locomotive, Control Cab or Cab Car**: A passenger car without propelling motors, but with one or more control stands.

**Locomotive, Controlling**: The locomotive from which the engineer exercises control over the train.

**Locomotive, MU**: A self propelled (by any power source) passenger car with or without control stands.

**Longitudinal**: In a direction parallel to the normal direction of travel of a rolling stock unit.

**Luminescent Material**: A material that absorbs light energy when ambient levels are high and emits this stored energy when ambient levels are low--giving it a “glow in the dark” quality.

**L/V Ratio**: The lateral force the flange of a wheel of a high speed passenger train-set exerts on the rail, divided by the vertical force the tread of the same wheel exerts on the rail.

**Main Track**: A track upon which the operation of trains is governed by one or more of the following methods of operation: timetable; mandatory directive; signal indication; or any form of absolute or manual block system.

**Manual Block Signal System**: Block or series of consecutive blocks, governed by block signals operated manually, upon information by telegraph, telephone, or other means of communication.

**Medical Facility**: A hospital, clinic, physician’s office, or laboratory where toxicological samples can be collected according to recognized professional standards.

**Medical Review Officer (MRO)**: A licensed physician designated by the railroad who is responsible for receiving laboratory results generated by the railroad’s drug testing program, who has knowledge of substance abuse disorders, and who has appropriate medical training to interpret and evaluate an individual’s positive test result (as reported by laboratory) together with his or her medical history and any other relevant bio-medical information.

**Movable Bridge**: That section of a structure bridging a navigable waterway so designed that it may be displaced to permit passage of traffic on the waterway.

**Movable Bridge Locking**: Rail locks, bridge locks, bolt locks, circuit controllers, and electric locks used in providing interlocking protection at a movable bridge.

**Non-vital Circuit**: Any circuit whose function does not affect the safety of train operation.

**Occupied Volume**: The sections of the passenger vehicle or power vehicle which contain seating and are normally occupied by passengers or crew.

**Off Air**: A block of cars that is not connected to a source of compressed air.

**Offer**: A manifestation of willingness to enter into a bargain, so made that the other party understands that assent to that bargain is invited and will conclude it.

**Offeror**: A person who performs functions associated with offering a hazardous material for transportation; a person who offers for transportation the packagings of a hazardous material or packages containing the residue of a hazardous material.

**Office of Hazardous Materials Transportation (OHMT)**: A Division within the Research and Special Programs Administration (RSPA), whose responsibilities include the development of the HMR.

**Opposing Signals**: Roadway signals that govern movements in opposite directions on the same track.

**Ordinary Break**: Any partial or complete fracture in which there is no sign of an internal or external defect.

**OS**: Term used to report the time that trains pass designated points.

**Overlap**: Distance the control of one signal extends into the territory which another signal, or signals, governs.

**Overlap Block Signal System**: Block signal system in which the control of a signal, or signals, extends into the territory which another signal, or signals, governs, so that one or more opposing signals display an aspect indicating Stop.

**Over-ride**: Compressive forces causing a vehicle or unit to climb over the normal coupling or side buffers and linking mechanism and to impact the end of the adjoining vehicle or unit above the under frame.

**Ordered or Date Ordered**: New equipment for which a contractor or supplier is given notice to proceed (with date) by the procuring railroad.

**Passenger Car**: A unit of rolling stock that is used to transport passengers.

**Person**: An individual, firm, co-partnership, corporation, company, association, or joint-stock association; includes any trustee, receiver, assignee, or personal representative thereof.

**Piped Rail**: Rail defect in the form of a vertical split in the rail Web or head, usually due to failure in the side of the shrinkage cavity in the ingot to unite in rolling.

**Piston Travel**: The amount of linear movement of the air brake hollow rod (or equivalent) or piston rod when forced outward by movement of the piston in the brake cylinder or actuator and limited by the brake shoes being forced against the wheel or disc.

**Plug, Tie**: Rectangular section of wood in the shape of a spike shank used to fill and preserve holes from which spikes have been withdrawn.

**Point Detector**: Circuit controller which is part of the switch operating mechanism and operated by a rod connected to a switch, derail, or movable point frog to indicate that the point is within a specified distance of the stock rail.

**Positive Rate**: The number of positive results for random drug tests conducted, plus the number of refusals of random tests required, divided by the sum of the total number of random drug tests conducted, plus the number of refusals of random tests required.

**Power Brakes**: All apparatus or components operated by power sources to produce the necessary retarding force to safely decelerate a train.

**Pre-Revenue Service Acceptance Test Plan**: A document prepared by the system operator that explains in detail how the pre-revenue service tests demonstrate that a high speed passenger train-set meets Federal safety standards and its own safety design requirements.

**Principal**: One who has permitted or directed another to act for his benefit and subject to his direction or control.

**Profile**: Established grade line in relation to the horizontal.

**Qualified Person**: An employee of the system operator or an employee under contract to the system operator qualified by the system operator to perform specific tasks necessary for the operation of the high speed rail system.

**Qualified Train Crew Member**: A person who has demonstrated the knowledge and skills necessary to inspect or to test train brake systems.

**Rail Saw**: Power machine used to cut steel rails.

**Rail Section**: Shape of the end of a rail cut at right angles to its length. The rail mills identify the different shapes and types of rails by code numbers, as for example, 131-28 for the 131 RE rail section.

**Rail, Track**: Rolled steel T-section rail designed to be laid end to end in two parallel lines on cross ties or other suitable supports to form a track for railway rolling stock.

**Receiving Yard**: A rail yard generally used for receiving trains after road movements.

**Refusal to Submit**: Failure by a covered employee to provide a urine sample as required by 49 CFR Part 40, without a genuine inability to provide a specimen (as determined by a medical evaluation), after he or she has received notice of the requirement to be tested, or engages in conduct that clearly obstructs the testing process.

**Refusal to Submit (to an Alcohol Test)**: Failure by a covered employee to provide adequate breath for testing without a valid medical explanation after he or she has received notice of the requirement to be tested, or engages in conduct that clearly obstructs the testing process.

**Repair Point**: A location designated by the railroad where repairs of the type necessary occur on a regular basis. A repair point has, or should have the facilities, tools, and qualified mechanical employees required to make the necessary repairs. Repair points need not be manned continuously.

**Research and Special Programs Administration (RSPA)**: The lead DOT agency in the development of the HMR.

**Restricted Speed**: A speed that will permit stopping within one-half the range of vision, but not exceeding 20 mph.

**Right-of-Way**: Lands or rights used or held for railroad operation and construction.

**Roof Rail**: The longitudinal structural member at the intersection of the side wall and the roof sheathing.

**Running Test**: A test of a train-set system or component while the train-set is in motion to verify that the system or component functions as intended.

**Safety Appliance**: An appliance, including but not limited to, handholds, handrails, or ladder treads made of steel or a material of equal or greater mechanical strength used by the traveling public and railroad employees that provides a means for safely coupling, uncoupling, ascending or descending railroad rolling stock equipment.

**Safety Inspection Criteria**: A measurement limit or observation threshold used to trigger corrective action to prevent a serious safety problem from developing. Measurements may be taken manually or by reliable sensors.

**Screening Test**: An analytical procedure conducted by a medical laboratory to determine whether a covered employee may have a prohibited concentration of alcohol in his or her system.

**Sectional Release**: Type of route locking in which directional stick relays unlock the route in sections. The purpose is to release switches or other devices in the route after the rear of a train movement has cleared them.

**Semi-permanently Coupled**: Coupling and uncoupling of each unit in a train can only be performed safely while at a maintenance or shop location where personnel can safely get under or between units in order to operate the coupler.

**Shear Strength**: The ability of a structural member to resist forces or components of forces acting perpendicular to compression/tension forces in the member.

**Shock Absorbent Material**: Material designed to prevent or mitigate injuries due to impact by yielding and absorbing much of the energy of impact.

**Shunt**: Bypass in an electrical circuit.

**Shunting Sensitivity**:

> **(Non-coded Track Circuit)**: Maximum resistance in ohms which will cause the relay contacts to open when resistance is placed between the rails at the most adverse shunting location.
>
> **(Coded Track Circuit)**: Maximum resistance in ohms which will prevent the code responsive track relay from following the code when this resistance is placed between the rails at the most adverse shunting location.

**Side Posts**: Main vertical structural elements supporting the sides of a vehicle.

**Side Sills**: That portion of the under frame or side which provides horizontal support to the sides of a vehicle.

**Siding**: Auxiliary track adjacent to a main track used by meeting or passing trains.

**Signal Application**:

**Absolute**: Signal of an automatic block signal system that is capable of displaying “Stop” as opposed to “Stop and Proceed.”

**Approach**: Fixed signal used in connection with one or more signals to govern the approach thereto.

**Block**: Fixed signal at the entrance of a block to govern trains and engines entering and using that block.

**Cab**: Signal located in engine control compartment or cab indicating a condition affecting the movement of train or engine and used in conjunction with interlocking signals and in conjunction with or in lieu of block signals.

**Distant**: Signal of fixed location indicating a condition affecting the movement of a train or engine.

**Fixed**: Signal of fixed location indicating a condition affecting the movement of a train or engine. Note: The definition of “fixed signal” covers such signals as switch, train order, block, interlocking, speed signs, stop signs, yard limit signs, slow signs, or other means for indicating a condition affecting the movement of a train or engine.

**Grade Crossing Signal**: Electrically operated signal used for warning highway traffic of the approach of trains at highway-rail grade crossings.

**Holding**: Fixed signal at the entrance of a route or block to govern trains or engines entering and using that route or block.

**Home**: Fixed signal at the entrance of a route or block to govern trains or engines entering and using that route or block.

**Intermediate Permissive**: Signal on which the most restrictive aspect is “Stop and Proceed,” or “Restricted.”

**Signal (Types and Arrangements)**:

**Bracket**: Arrangement in which the signals for movements in the same direction on each of two or more tracks are mounted side by side on the same ground mast, using a cross piece rather than a cantilever arm.

**Color Light**: Fixed signal in which the indications are given by the color of a light only.

**Color Position Light**: Fixed signal in which the indications are given by color and the position of two or more lights.

**Dwarf**: Low home signal.

**Flashing Light**: Grade Crossing Signal, the indication of which is given by two horizontal red lights flashing alternately at predetermined intervals, or a fixed signal in which the aspects are given by color and by the flashing of one or more of the signal lights.

**Four-Position**: Light signal unit arranged to provide four aspects.

**Light**: Fixed signal in which the indications are displayed by the color and/or position of a light(s).

**Position Light**: Fixed signal in which the indications are given by the position of two or more lights.

**Pot**: Small revolving fixed signal used as a substitute for a dwarf signal.

**Searchlight**: Type of color light signal that uses a single lamp with a single lens or lens doublet to display up to three different aspects by placing a color cone or disc between the lamp and lens.

**Three-Position**: A semaphore arm or light signal unit arranged to provide three aspects.

**Two-Position**: A semaphore arm or light signal unit arranged to provide two aspects.

**Signal Indication**: The information conveyed by the aspect of a signal relative to speed and conditions on the track ahead.

**Sill**: Lowest horizontal member of a framed bent.

**Single Car Test**: A comprehensive test of the functioning of all critical brake system components installed on an individual car. Single car tests may be conducted within a pre-defined period of time and/or when components of the brake system are removed, repaired, or replaced.

**Single Car Test, Passenger Car**: A comprehensive test of a conventional brake system on a passenger car in accordance with the AAR Standard S-044, contained in the AAR "Instruction Pamphlet 5039-4, Supp. 3" (April 1991). The test is required on a periodic basis and when components of the brake system are removed, repaired or replaced.

**Single Car Test Device**: A device capable of controlling the application and release of the brakes on a single car through defined orifices and of measuring air flow.

**Skin**: The outer covering on the front of the locomotive, MU locomotive, or cab car locomotive, excluding the windows and forward facing doors. The skin may be covered with another coating of a material such as fiberglass, etc.

**Slack Adjuster, Automatic**: An appliance for automatically adjusting brake cylinder piston travel to a predetermined length.

**Slag Ballast**: Precious metal residue, very dense with extraordinary interlocking capability, a superior ballast for prevention of Sun Kink.

**Slip Switch Double**: Combination of a crossing with two right-hand and two left-hand switches, used in space-constricted areas such as passenger terminals.

**Software Safety Plan**: A document that the system operator requires the system developer to produce that lays out the procedures and tests to be used to ensure that computer programs developed for the train-set are fail-safe and reliable.

**Spall**: Small pieces of glazing that fly off the back surface of glazing due to an object striking the front surface.

**Spiral**: Form of easement curve in which the change of degree of curve is uniform throughout its length.

**Split Web**: Longitudinal or diagonal transverse crack in the Web of a rail.

**Spot Checks**: Random checks of train inspections, tests, or maintenance operations conducted by qualified supervisors.

**Static End Load**: The compressive force the under frame or the unit body structure or body space frame must be able to withstand without damage or permanent deformation of the occupied volume.

**Stock Rail and Trunk Rail**: Running rail against which the switch, derail, or movable frog point rests.

**Stopping Distance**: The maximum distance on any portion of any railroad which any train operating on such portion or railroad at its maximum authorized speed will travel during a full service application of the brakes, between the point where such application is initiated and the point where the train comes to a stop.

**Stringer**: Longitudinal member supporting the bridge ties or ballast deck extending from bent to bent.

**Subgrade**: Finished surface of the roadbed below the track and ballast.

**Sun Kink**: Small irregularity in track alignment which is caused by excessive compression in the rails (from exposure to high temperatures).

**Switch**: Track structure with movable rails used to divert rolling stock from one track to another.

**Switch, Heel of**: End of a switch rail farthest from the point of a switch.

**Switch, Spring**: Track switch with a spring mechanism that automatically returns the switch points to a normal position after they have been displaced by the passage of cars in a trailing point movement.

**Switch, Throw of**: Distance through which the points of switch rails are moved side wise, measured along the center line of the No. 1 switch rod or head rod. (This distance is standardized at 4 3/4 inches.)

**Switch Point**: Movable tapered track rail, the point of which is designed to fit against the stock rail.

**Switch Point Derail**: Derail consisting essentially of a split switch point with the necessary fixtures.

**Switch Stand**: Device for manual operation of switch points.

**Switching**: Switching service consists of moving cars from one track to another track or to different positions on the same track. It includes the moving of cars in the make-up and break-up of trains; also moving of cars on industrial switching tracks or interchange tracks, and the general movement of cars within terminals or at junctions.

**System**: A composite of equipment, computer programs, people, facilities, procedures and documentation which are integrated to perform a specific operational function in a specific environment.

**System Developer**: The legal entity responsible for bringing the high speed rail system to the point it has been approved for revenue service. The system developer and system operator may or may not be the same legal entity.

**System Operator (Or operating railroad)**: The legal entity responsible for the operation of passenger trains in revenue service.

**System Safety Plan**: A document that the system operator requires the system developer to produce that gives the details of the techniques, procedures and tests to be used as part of the train set design process to ensure that the train set meets all Federal Safety Standards and its own safety design requirements.

**System Safety Program**: The activities described in the system safety plan that the system operator requires the system developer to perform to ensure that the train set meets all Federal Safety Standards and its own safety design requirements.

**Tangent**: Straight portion of track alignment.

**Telescope**: Compressive forces causing a vehicle or unit to override an adjoining vehicle or unit and penetrate into the interior of that adjoining vehicle or unit.

**Terminal**: A train's starting point, where passengers may embark a train, and ending point where passengers may disembark a train of a single scheduled trip. Normally the location is a point where the train would reverse direction or change destinations.

**Tie Plate**: Steel plate between a rail or other track structure and a tie. Supports the rail base and distributes loading over a wider "bearing area."

**Time Release**: Device used to prevent the operation of an operative unit until after the expiration of a predetermined time interval after the device has been actuated.

**Track Circuit**: Electrical circuit of which the rails of the track form a part.

> **Clearance-coded**: Track circuit in which the energy is varied or interrupted periodically.
>
> **Distance to Couple (Hump Yard)**: Special track circuit used to measure the distance between the clearance point after the last switch and the nearest standing car on the classification track.
>
> **High Level AC DC**: Rrefers to a track circuit which employs relatively high alternating current voltage on rails, a low impedance energy source, and a transformer-rectifier unit between rails and direct current track relay.
>
> **Impulse**: Generally refers to a track circuit whose track relay is influenced by or activated by a sudden change of current.

**Traffic Control System**: A block signal system under which train movements are authorized by block signals whose indications supersede the superiority of trains for both opposing and following movements on the same track.

**Trailing Point Switch**: Track switch, the points of which face away from traffic approaching in the direction for which the track is signaled.

**Train**: One or more locomotives coupled with one or more rail cars, except during switching operations or where the operation is that of classifying rail cars within a railroad yard for the purpose of making or breaking up trains.

**Train Brake Communication Line**: The communication link between the locomotive and cars by which the brake commands are transmitted. This may be a pneumatic pipe, electrical line, or radio signal.

**Train Control System**: System so arranged that its operation will automatically result in the following: A full service application of the brakes which will continue either until the train is brought to a stop, or, under control of the engine man, its speed is reduced to a predetermined rate.

**Train Stop System**: System so arranged that its operation will automatically result in the application of the brakes until the train has been brought to a stop.

**Train, Commuter**: A short haul passenger train operating on track which is part of the general railroad system of transportation, within an urban, suburban regional or metropolitan area. It includes a passenger train provided by an instrumentality of a State or political subdivision thereof.

**Train-Sets of Tilting Design**: Train sets designed with a feature to tilt passenger compartments in curves to allow the safe negotiation of curves at higher speeds.

**Train-Set, Passenger**: A passenger train including the locomotive(s) or power car(s) and passenger cars that are semi-permanently coupled to operate as a single unit. The individual components are uncoupled only for emergencies or maintenance.

**Transverse**: In a direction perpendicular to the normal direction of travel of a rolling stock unit.

**Transverse Fissure**: Rail defect which originates inside the rail head and spreads outward, crosswise of the rail. (Common to non-control-cooled rail rolled before 1937.)

**Turnout**: Arrangement of a switch and a frog with closure rails by means of which rolling stock may be diverted from one track to another. Another name for “track switch.”

**Ultimate Strength**: The ability of a structural member to resist fracture or total structural failure.

**Uncoupling Mechanism**: The arrangement for operating the coupler lift lock.

**Under Frame**: The lower horizontal support structure of a car body.

**Unit**: A car or locomotive of any type. For articulated equipment a unit is defined as a piece of equipment between two trucks.

**Unit Body (monocoque) Design or Unistructure**: A type of vehicle construction where the shell or skin acts as a single unit with the supporting frame to resist and transmit the loads acting on the vehicle.

**Unoccupied Volume**: The sections of the passenger vehicle or power vehicle which do not contain seating and are not normally occupied by passengers or crew.

**Vertical Split Head**: Split along or near the middle of the rail head which extends into or through the head.

**Vestibule:** An area of a rail passenger vehicle that normally does not contain seating and leads to the side exit doors.

**Violation Rate**: The number of covered employees found during random tests to have an alcohol concentration of .04 or greater, plus the number of employees who refuse a required random test, divided by the sum of the total reported number of employees in the industry given random alcohol tests, plus the total reported number of employees in the industry who refuse a required random test.

**Vital Circuit**: Any circuit whose function affects the safety of train operations.

**Welded Rail (vs. CWR - see definition)**: Two or more rails welded together at their ends to form an overall length of less than 400 feet.

**Wheels Free of Cracks**: Freight car wheels with no visible cracks in the tread surface or flange of the wheel.

**Witness Plate**: A thin foil placed behind a piece of glazing undergoing impact test. Any material spilled or broken from the back side of the glazing will dent or mark the witness plate.

**Wood Trestle**: Timber structure with driven or posted bents that support stringers and the track deck. May or may not have walkways.

**Yard**: A system of tracks within defined limits provided for the making up of trains, storing of cars, and other purposes, over which movements not authorized by timetable or train order may be made, subject to special instructions.

**Yard Air Test**: A train brake system test conducted using a source of compressed air other than a locomotive.

**Yield Strength**: The ability of a structural member to resist a change in length caused by a heavy load. Exceeding the yield strength may cause permanent deformation of the member.

**ACRONYMS**

| | |
|---|---|
| AAP | Annual Allocation Model (Replaces National Inspection Plan or NIP) |
| AAR | Association of American Railroads |
| ABS | Automatic Block System |
| APTA | American Public Transit Association |
| AREA | American Railway Engineering Association |
| ASCE | American Society of Civil Engineers |
| ASLRA | American Short Line Railroad Association |
| ASME | American Society of Mechanical Engineers |
| ASSE | American Society of Safety Engineers |
| ASTM | American Society for Testing and Materials |
| ATSDR | Agency for Toxic Substances and Disease Registry (HHS) |
| BLE | Brotherhood of Locomotive Engineers |
| BMWE | Brotherhood of Maintenance-of-Way Employees |
| BOE | Bureau of Explosives |
| BRC | Brotherhood or Railway Carmen |
| CDC | Center for Disease Control |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CFR | Code of Federal Regulations |
| CHEMMET | A mutual aid network of chemical offerors and contractors |
| CHEMTREC | Chemical Transportation Emergency Center |
| CHLOREP | A mutual aid group comprised of offerors and carriers of chlorine. |
| CMA | Chemical Manufacturers Association |
| CTC | Centralized Train Control |
| CWR | Continuous Welded Rail |
| DOD | Department of Defense |
| DOE | Department of Energy |
| DOT | Department of Transportation |
| EPA | Environmental Protection Agency |
| FEMA | Federal Emergency Management Agency |
| FEP | Focused Enforcement Program |
| FHWA | Federal Highway Administration |
| FR | Federal Register |
| FRA | Federal Railroad Administration |
| GAO | General Accounting Office |
| HHS | Department of Health and Human Services |
| HMTA | Hazardous Materials Transportation Act |
| HMR | Hazardous Materials Regulations |
| NCP | National Contingency Plan |
| NIOSH | National Institute of Occupational Safety and Health |
| NTSB | National Transportation Safety Board |
| NRT | National Response Team |
| OHMT | Office of Hazardous Materials Transportation |
| OSC | On-Scene Coordinator |
| OSHA | Occupational Safety and Health Administration |
| OTA | Office of Technology Assessment, U.S. Congress |
| PSI | Pounds per Square Inch (Measurement of Pressure) |
| PPB | Parts per Billion |
| PPM | Parts per Million |
| PPT | Parts per Trillion |
| PUC | Public Utility Commission |
| RCRA | Resource Conservation and Recovery Act |
| RIP | Regional Inspection Point |
| RRT | Regional Response Team |
| RSAC | Railroad Safety Advisory Committee |
| RSAP | Railroad Safety Agreement Plan |
| RSPA | Research and Special Programs Administration |
| RTECS | Registry of Toxic Effects of Chemical Substances |
| RQ | Reportable Quantity |
| SACP | Safety Assurance and Compliance Program |

**ACRONYMS**

| | |
|---|---|
| SARA | Superfund Amendments and Re-authorization Act of 1986 |
| TCS | Train Control System |
| TRC | Technical Resolution Committee |
| TWU | Transportation Workers' Union of America |
| TSCA | Toxic Substances Control Act |
| TWA | Time Weighted Average |
| USC | United States Code |
| USCG | United States Coast Guard |
| UTU | United Transportation Union |