

HAZARDOUS MATERIALS COMPLIANCE MANUAL

January 2025



U.S. Department of Transportation
Federal Railroad Administration

Prepared By: FRA Office of Railroad Safety, Hazardous Materials Division



Approved by Karl Alexy, Associate Administrator for Railroad Safety and Chief Safety Officer
January 7, 2025

Disclaimer

This document is considered guidance pursuant to DOT Order 2100.6A (June 7, 2021). Except when referencing laws, regulations, policies, or orders, the information in this document does not have the force and effect of law and is not meant to bind the public in any way. This document replaces the previous compliance manual issued in February 2017.

This document is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its agencies or other entities, officers or employees, or any other person. In addition, this document shall not be construed to create any right to judicial review involving the compliance or noncompliance with this document by the Federal Railroad Administration or the U.S. Department of Transportation, its Operating Administrations or components, its officers or employees, or any other person.

Table of Contents

Chapter 1 – About This Manual	1
1.1 Introduction.....	1
1.2 Comments from Interested Persons	2
1.3 Updating the Manual.....	2
Chapter 2 – Scope of Compliance Oversight Program	3
2.1 Statutory Authority.....	3
2.2 Scope of Regulatory Authority	3
2.2.1 Pre-transportation Functions.....	4
2.2.2 Transportation Functions	5
2.2.3 Other Regulated Functions and Standards.....	5
2.2.4 Structure of the Hazardous Materials Regulations	6
2.3 Inspection Authority.....	6
2.3.1 Summary	7
2.4 Coordination with DOT Modal Administrations and Other Federal Agencies.....	7
2.5 Hazardous Materials Regulatory Development.....	8
Chapter 3 – Roles and Responsibilities	9
3.1 Hazardous Materials Organization	9
3.2 Responsibilities of Hazardous Materials Division (HMD) Personnel.....	9
3.2.1 Staff Director	9
3.2.2 Deputy Staff Director District Operations	9
3.2.3 Deputy Staff Director Safety Management System/Risk Reduction Plan.....	10
3.2.4 Railroad Safety Specialist.....	10
3.2.5 Railroad Safety Specialist (RAM)	10
3.2.6 Railroad Safety Specialist Accident Chief.....	11
3.2.7 Program Analyst.....	11
3.2.8 District Hazardous Materials Supervisory Specialist	11
3.2.9 Hazardous Materials Inspector	12
3.2.10 Hazardous Materials Administrative Specialist.....	12
3.3 Organization of Tank Car Team.....	12
3.4 Responsibilities of Tank Car Team	13
3.4.1 Program Manager.....	13
3.4.2 Tank Car Quality Assurance Specialist.....	13
3.4.3 General Engineer	13
Chapter 4 – Inspector Safety.....	14

Chapter 5 – Risk-Based Prioritization	15
5.1 Asset Inventory of Railroads and Shippers.....	15
5.2 Territory Optimization Planning System	15
5.3 Risk-Based Inspections.....	15
Chapter 6 – Investigations.....	17
6.1 Complaint Investigation.....	17
6.2 Accident or Incident Investigation.....	17
6.3 Causality Investigation.....	17
6.4 Special Investigation.....	17
6.5 Waiver Investigation	17
6.6 One-time Movement Approval Investigation	18
6.7 HMII Investigations.....	18
Chapter 7– Inspections	19
7.1 Types	19
7.1.1 Regular Inspection	19
7.1.2 Special Inspection	19
7.1.3 Special Permit Inspection	19
7.1.4 Nuclear Route Inspection.....	19
7.1.5 Re-inspection	19
7.2 Locations of Hazmat Inspections and Common Components of Inspections	19
7.2.1 Railroad Customer Service Centers.....	20
7.2.2 Railroad Yards and Other Inspection Points	20
7.2.3 Intermodal Facilities (Agent/Broker and Actual Facilities).....	20
7.2.4 Shipper/Offeror Facilities	20
7.2.5 Tank Car Facility Inspection.....	20
7.2.6 Tank Car Owner Inspection	21
7.2.7 Tank Car Damage Assessment.....	21
Chapter 8 – Reporting	22
8.1 Inspection Report (Form FRA F 6180.96).....	22
8.2 Violation Report (Form FRA F 6180.110).....	22
8.3 Notice to Individual of Alleged Violation (Form FRA F 6180.80).....	22
8.4 Special Investigation Reporting.....	22
8.4.1 HMII	22
8.4.2 Special Permit Recommendations/Fitness Evaluation Recommendations.....	22
8.4.3 Complaint Investigation.....	23
Chapter 9 – Security Seal.....	24

9.1	Authority	24
9.2	Seal Security	25
9.3	Notification	25
Chapter 10 – Enforcement and Compliance Program		26
10.1	Determining When and What Enforcement Action Is Necessary	26
10.2	Factors to Consider When Enforcing the Hazardous Materials Regulations	26
10.3	Enforcement Tools	27
10.3.1	Defect Notices.....	27
10.3.2	Violation with Civil Monetary Penalties.....	27
10.3.3	Enhanced Penalties	28
10.3.4	Railworthiness Directives	28
10.3.5	Compliance Orders	28
10.3.6	Emergency Orders	28
10.3.7	Injunctions.....	29
10.3.8	Criminal Penalties.....	29
10.3.9	Individual Liability (Railroad Employees Only)	29
Chapter 11 – Notifications and Approvals		30
11.1	Notifications.....	30
11.2	Approvals	30
11.2.1	One-Time Movement Approvals	30
11.2.2	COFC/TOFC Approval.....	30
11.2.3	Cylinders in COFC/TOFC Service	31
11.2.4	Increase Gross Weight	31
11.2.5	Performance Standard Requirements DOT-117P Specification Tank Cars	31
11.2.6	Alternative Inspection and Test Procedures	31
Chapter 12 – Hazardous Materials Guidance Notice		32
APPENDICES		36
Appendix A – TWIC Card		36
Appendix B – Glossary & Acronyms		37

This document is considered guidance pursuant to DOT Order 2100.6A (June 7, 2021). Except when referencing laws, regulations, policies, or orders, the information in this document does not have the force and effect of law and is not meant to bind the public in any way.

CHAPTER 1 – ABOUT THIS MANUAL

The goal of the Federal Railroad Administration’s (FRA) hazardous materials (HM) safety program is to minimize, and where possible eliminate, the risks inherent to the transportation of HM by rail. Achievement of this goal requires identifying and managing risk to protect the public and ensure the continuing economic viability of the Nation.

This goal is accomplished through a variety of compliance tools including inspections, investigations, audits, and stakeholder outreach programs. The goal is the direct responsibility of the district and headquarters (HQ) staff of FRA’s Office of Railroad Safety (RRS) HM Division (HMD) and the Office of the Chief Counsel’s (RCC) Safety Law Division.

This discipline-specific manual outlines the structure of FRA's hazmat rail safety oversight programs, defines the roles and responsibilities of HMD personnel, including State partners, and discusses the tools used to assess compliance with the HM regulations (HMR:49 CFR Parts 171-180). The information in this manual is intended to generally describe internal policy and does not provide any basis for a private party to challenge FRA’s exercise of enforcement discretion in a particular case. The information provided in this manual may be revoked or modified without prior notice at any time by FRA. This manual supersedes all previous HM enforcement and/or compliance manuals.

This manual is a complement to RRS’ General Manual (General Manual). The General Manual provides detailed information regarding FRA’s overall operations, history, and statutory authority, rulemaking process, and inspection and investigation procedures. Both manuals are specifically intended for use by HM safety inspectors and technical specialists throughout the country who monitor compliance with Federal laws that apply to the transportation of HM by rail. Using both this discipline-specific manual and the General Manual will aid FRA inspectors in the uniform application and enforcement of the Federal HM transportation safety laws and implementing regulations, including laws and regulations affecting the security of HM in transportation.

1.1 Introduction

Within the U.S. Department of Transportation (DOT), the Pipeline and Hazardous Materials Safety Administration (PHMSA) is the DOT operating administration responsible for promulgating regulations implementing Federal HM transportation laws. Each of the modes (rail, water, highway, and air) is delegated responsibility to enforce DOT regulations within its area of expertise and familiarity.¹ With the support of PHMSA, groups spanning all of DOT’s modes work to achieve consistency, equity, and fairness in these enforcement activities with the goal of improved safety in hazmat transportation, regardless of how it moves.

¹ The U.S. Coast Guard, under the U.S. Department of Homeland Security, has the authority to enforce the HM transportation laws and regulations pertaining to water transportation.

The policies and guidelines contained in this manual are designed to ensure effective use of available resources. This manual will aid inspectors in the application and enforcement of the Federal HM laws. This uniformity is necessary for effective program management and execution.

This manual is the property of FRA and is intended for use by FRA and participating State HM personnel only. Comments and suggestions for future changes and additions to this manual are invited and should be forwarded to FRAHazmatSMS@dot.gov. In this manual, the rules of language construction established in the HMR at 49 C.F.R. § 171.9, *Rules of construction*, apply, unless otherwise indicated.

1.2 Comments from Interested Persons

As required by the Freedom of Information Act (5 U.S.C. § 552), this manual is available for public review. Interested persons are invited to submit constructive comments regarding the content of this manual and to make recommendations regarding any material they believe should be added.

1.3 Updating the Manual

As changes, revisions, or deletions occur in the manual, updated pages will be sent to FRA HM enforcement personnel, along with a notice identifying and describing the updates.

CHAPTER 2 – SCOPE OF COMPLIANCE OVERSIGHT PROGRAM

2.1 Statutory Authority

The Hazardous Materials Transportation Act of 1975 and its subsequent amendments² direct the U.S. Secretary of Transportation (Secretary) to issue regulations “for the safe transportation, including security, of hazardous material in commerce.”³ The authorizing HM statute specifically provides that such prescribed regulations apply to persons who:

1. Transport HM in commerce.
2. Cause HM to be transported in commerce.
3. Design, manufacture, fabricate, inspect, mark, maintain, recondition, repair, or test a package, container, or packaging component that is represented, marked, certified, or sold as qualified for use in transporting HM in commerce.
4. Prepare or accept HM for transportation in commerce.
5. Are responsible for the safety of transporting HM in commerce.
6. Certify compliance with any requirement of Federal HM transportation law (or its implementing regulations).⁴

The Federal HM transportation laws further provides that such regulations govern all “safety aspects, including security, of the transportation of hazardous material the Secretary considers appropriate.”⁵

2.2 Scope of Regulatory Authority

The HMR are found in 49 C.F.R. Parts 171–180. A central premise of the HMR is that the offering for transportation, acceptance for transportation, or transportation of a hazardous material is prohibited unless certain safety standards are met.⁶ A hazardous material shipment must be prepared in accordance with the requirements of the HMR in order to be offered for transportation, or transported by air, highway, railroad, or water. As such, the HMR impose regulatory requirements on persons who (1) perform functions in advance of transportation to prepare HM for transportation (“pre-transportation functions”)⁷; (2) perform “transportation” (i.e., movement and incidental loading, unloading, and storage functions)⁸; or (3) design,

² 49 U.S.C. § 5101 *et seq.*

³ 49 U.S.C. § 5103(b)(1). “Commerce,” for FRA’s purposes, means trade or transportation in the jurisdiction of the United States between a place in a State and a place outside of the State or that affects trade or transportation in a State and a place outside of the State. 49 U.S.C. § 5102(1).

⁴ 49 U.S.C. § 5103(b)(1)(A).

⁵ 49 U.S.C. § 5103(b)(1)(B).

⁶ 49 C.F.R. § 171.2.

⁷ 49 C.F.R. § 171.1(b).

⁸ 49 C.F.R. § 171.1(c).

manufacture, inspect, or maintain packages that are represented or sold as qualified for use in the transportation of HM in commerce.⁹

Functions that are not “pre-transportation functions” or “transportation functions,” and otherwise not subject to the HMR’s packaging requirements, are generally not regulated by the HMR (e.g., storage of a package containing HM at a shipper’s facility prior to the package being offered for transportation, unloading HM from a packaging following the delivery of the HM to their destination, or storage of a railcar containing HM on private track).¹⁰

2.2.1 Pre-transportation Functions

“Pre-transportation functions” are activities necessary to assure the safe transportation of the HM and are required to be performed before the HM is offered for transportation in commerce. Pre-transportation functions¹¹ include, but are not limited to:

- (1) Determining the hazard class of a hazardous material.
- (2) Selecting a HM packaging.
- (3) Filling a HM packaging, including a bulk packaging.
- (4) Securing a closure on a filled or partially filled HM package or container or on a package or container containing a residue of a hazardous material.
- (5) Marking a package to indicate that it contains a hazardous material.
- (6) Labeling a package to indicate that it contains a hazardous material.
- (7) Preparing a shipping paper.
- (8) Providing and maintaining emergency response information.
- (9) Reviewing a shipping paper to verify compliance with the HMR or international equivalents.
- (10) For each person importing a hazardous material into the United States, providing the shipper with timely and complete information as to the HMR requirements that will apply to the transportation of the material within the United States.
- (11) Certifying that a hazardous material is in proper condition for transportation in conformance with the requirements of the HMR.
- (12) Loading, blocking, and bracing a HM package in a freight container or transport vehicle.
- (13) Segregating a HM package in a freight container or transport vehicle from incompatible cargo.

⁹ 49 C.F.R. § 171.1(a).

¹⁰ 49 C.F.R. § 171.1(d).

¹¹ 49 C.F.R. § 171.1(b)(1)-(14).

- (14) Selecting, providing, or affixing placards for a freight container or transport vehicle to indicate that it contains a hazardous material.

Per the HMR, a “carrier” is a person who transports passengers or property in commerce by railcar, aircraft, motor vehicle, or vessel.¹² Common, contract, and private carriers are specifically included in this definition. Carriers who perform functions required by the HMR as a condition of acceptance of hazmat for transportation in commerce or who transfer hazmat to another carrier for continued transportation in commerce without performing a pre-transportation function, are specifically excluded from the definition of offeror.¹³ However, if the carrier performs a pre-transportation function, they are responsible for performing that function in accordance with the HMR.¹⁴

2.2.2 Transportation Functions

The HMR define “transportation” generally as the “movement of property and loading, unloading, or storage incidental to that movement.”¹⁵ The HMR provide that transportation in commerce begins when a carrier takes physical possession of HM for the purpose of transporting it and continues until the HM are delivered to the destination indicated on a shipping paper.¹⁶ One exception to this general rule applies to rail transportation. Specifically, a railcar transporting HM is considered “in transportation” for purposes of the HMR until it is delivered to a “private track or siding.”¹⁷ This is true, even if the railcar is delivered to its final destination indicated on its shipping paper.

2.2.3 Other Regulated Functions and Standards

The HMR contain standards applicable to persons who design, manufacture, inspect, or maintain packages that are represented or sold as qualified for use in the transportation of HM in commerce (e.g., 49 C.F.R. Part 178, Specifications for Packagings; Part 179, Specifications for Tank Cars; and Part 180, Continuing Qualification and Maintenance of Packagings).

The HMR require hazmat employees to be trained in the requirements of the HMR. It is the responsibility of the hazmat employer to ensure that those individuals are properly trained in accordance with the HMR.¹⁸

The HMR also contain requirements aimed at ensuring the security of HM in transportation (e.g., 49 C.F.R. Part 172, Subpart I, Safety and Security Plans). Sections 172.800–172.802 require certain offerors and carriers of HM to develop and maintain safety and security plans addressing, at a minimum, personnel security, unauthorized access, and en route security of HM in transportation. Section 172.820, *Additional planning requirements for transportation by rail*, requires carriers of certain “security sensitive materials” including high-hazard flammable

¹² 49 C.F.R. § 171.8 definition of “carrier.”

¹³ 49 C.F.R. § 171.8 definition of “person who offers” or “offeror”.

¹⁴ 49 C.F.R. § 171.2(a).

¹⁵ 49 U.S.C. § 5102(13). *See also* 49 C.F.R. § 171.8 for definitions of “storage incidental to movement” and “unloading incidental to movement.”

¹⁶ 49 C.F.R. § 171.1(c).

¹⁷ 49 C.F.R. § 171.8 definition of “private track” or “private siding.”

¹⁸ 49 C.F.R. § 171.8 definition of “hazmat employee” and “hazmat employer” and 49 C.F.R. Part 172, Subpart H for specific training requirements.

trains¹⁹ to annually review the safety and security risks of the routes over which the carriers transport the materials and choose the routes that pose the least overall safety and security risk for such transportation. RRS HQ staff is responsible for compliance oversight of the security plan and routing risk assessment.

2.2.4 Structure of the Hazardous Materials Regulations

FRA's HM rail safety program is primarily responsible for monitoring compliance with the following parts of the HMR:

- Part 171 – General Information, Regulations, and Definitions
- Part 172 – Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, Training Requirements, and Security Plans
- Part 173 – Shippers—General Requirements for Shipments and Packagings
- Part 174 – Carriage by Rail
- Part 178 – Specifications for Packagings
- Part 179 – Specifications for Tank Cars
- Part 180 – Continuing Qualification and Maintenance of Packagings

2.3 Inspection Authority

The Federal HM transportation laws provide the authority for the Secretary to inspect facilities and records related to HM transportation. Specifically, 49 U.S.C. § 5121 provides designated agents of the Secretary (including FRA and certified State HM inspectors) the authority to “inspect and investigate, at a reasonable time and in a reasonable manner, records and property relating” to the regulated HM functions described in this manual. Federal officials and Law Enforcement officials are not required to obtain or possess a Transportation Worker Identification Credential (TWIC) Card in order to gain or have unescorted access to Maritime Transportation Security Act (MTSA)- regulated facilities and/or vessels while in the performance of their official duties. *See Appendix A.*

The Secretary has delegated enforcement authority to the modal administrations under the Federal HM transportation laws. Specifically, the FRA Administrator is delegated the authority to:

*carry out the functions vested in the Secretary by 49 U.S.C. 5121(a), (b), (c) and (d), 5122, 5123, and 5124, with particular emphasis on the transportation or shipment of hazardous materials by railroad.*²⁰

¹⁹ 49 C.F.R. § 171.8 definition of high-hazard flammable train (HHFT).

²⁰ 49 C.F.R. § 1.89(j).

Accordingly, FRA has the authority to enter the property of railroads, offerors, and other entities performing functions subject to the HMR for the purpose of inspecting and monitoring compliance with the HMR, an authority supplemented by the power to subpoena persons and documents and to hold hearings and conduct investigations.²¹

Offerors are authorized to introduce HM into transportation only if it is in compliance with all statutory and regulatory requirements. Therefore, FRA has an obligation to investigate possible violations at points where shipments originate and to monitor compliance on a regular basis. The legal standard is clear: by engaging in the shipment of dangerous commodities, companies (and individuals) constructively accept the necessity of proper unannounced inspections.²²

The Hazardous Materials Transportation Safety and Security Reauthorization Act of 2005 and the Hazardous Materials Transportation Safety Improvement Act of 2012 revised 49 U.S.C. § 5121 to authorize agents of the Secretary to: (1) open packages to identify undeclared or noncompliant HM shipments; (2) inspect and temporarily detain suspicious packages; and (3) issue emergency orders (e.g., restrictions, prohibitions, and out-of-service orders) to address unsafe conditions or practices. These requirements were codified in two final rules published on March 2, 2011²³ (76 Fed. Reg. 11570) and on October 2, 2013²⁴ (78 Fed. Reg. 60755). A joint operation manual for 49 C.F.R. Part 109 was developed with the input of all modal agencies, and is available on PHMSA's website at:

<https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/Joint%20Operations%20Manual.pdf>.

2.3.1 Summary

FRA inspectors are authorized to inspect railroad, offeror, or other facilities and all pertinent documents whenever doing so would reasonably be expected to serve the purpose of ascertaining or encouraging compliance with the HMR. Neither a warrant nor any other prior approval is necessary. FRA personnel should be courteous, inspect in a manner to disrupt the facility's business as little as possible, and display credentials upon request. Simply stated, any person affecting the transportation of a hazardous material in commerce is subject to inspection and may be cited for a noncomplying condition under the Federal HM transportation law or the HMR.²⁵ Moreover, any activity affecting the transportation of a HM in commerce is subject to investigation and inspection to determine compliance with the Federal HM transportation law and the HMR.²⁶

2.4 Coordination with DOT Modal Administrations and Other Federal Agencies

In 2012, the Federal Aviation Administration (FAA), Federal Motor Carrier Safety Administration (FMCSA), FRA and PHMSA signed the Interagency Memorandum of Agreement (MOA) on Cross-Modal Hazardous Materials Inspection and Enforcement. The

²¹ 49 U.S.C. § 5121(a).

²² *United States v. V-1 Oil Co.*, 63 F.3d 909 (9th Cir. 1995); *see also United States v. Biswell*, 406 U.S. 311 (1972).

²³ 76 FR 11570 (March 2, 2011).

²⁴ 87 FR 60755 (October 2, 2013).

²⁵ For example, shippers, shippers' agents, consignees, brokers, freight forwarders, contractors, and unloaders may be cited.

²⁶ For example, FRA and State inspectors may investigate and inspect loading activities, certification, documentation, handling of HM shipments, unloading, and placarding.

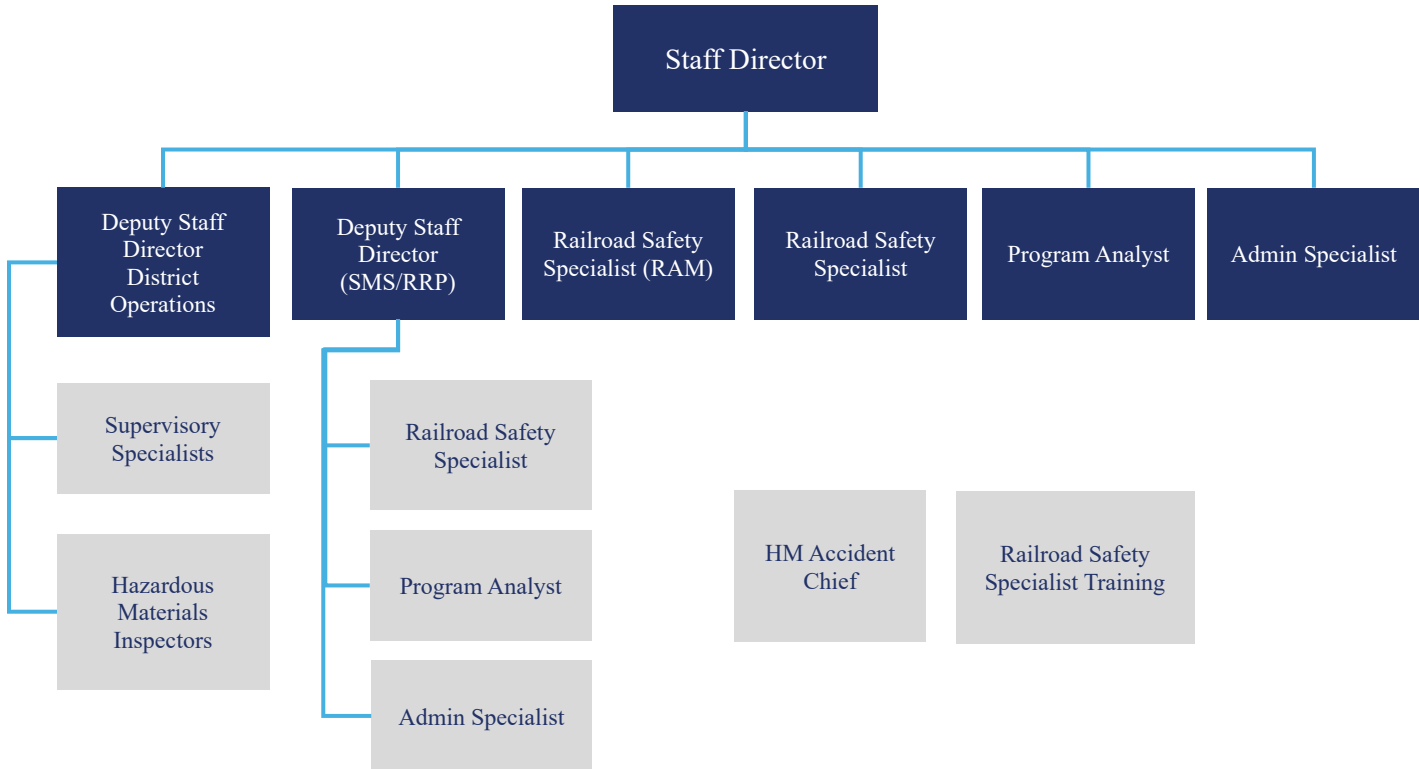
purpose of the MOA is to establish specific coordination guidelines for the Department's Operating Administrations (OA) with hazmat civil enforcement authority. The document outlines each OA's specific responsibilities with a focus on increasing efficiency of the Department's hazmat inspection and enforcement programs. Further, the MOA is intended to define and separate enforcement activities for the various modes of transportation. The MOA should serve as guidance for inspectors and other FRA technical representatives when interacting with DOT's other operating administrations during inspection and enforcement activities. In addition, DOT and the U.S. Coast Guard have entered into a MOU providing guidelines for coordination between the two agencies.

2.5 Hazardous Materials Regulatory Development

As previously stated, the HMR are promulgated by PHMSA in cooperation with other DOT operating administrations (FAA, FRA, FMCSA) and the U.S. Coast Guard (U.S. Department of Homeland Security). FRA staff, responsible for the promotion and regulation of railroad safety, engages PHMSA to ensure modal consistency in the final regulations. PHMSA, with input from the affected modal administration(s), makes a final determination on all applications for HMR Special Permits (SP). PHMSA's rulemaking procedures are set forth at 49 C.F.R. Part 106. FRA's HQ HMD staff provide technical, chemical, engineering, and operating expertise to PHMSA. The staff work with RCC to communicate FRA's advice and concerns related to the transportation of hazardous material by rail. Inspectors are encouraged to make suggestions for additions or amendments to the HMR to improve safety. Inspectors should submit their suggestions to the relevant district specialist for forwarding to the Staff Director, HMD.

CHAPTER 3 – ROLES AND RESPONSIBILITIES

3.1 Hazardous Materials Organization



3.2 Responsibilities of Hazardous Materials Division (HMD) Personnel

3.2.1 Staff Director

- Provides technical expertise and direction in the execution and administration of rail safety programs to ensure safety in railroad operations relevant to HM, including direction to the RRS field staff.
- Responsible for all aspects of planning, development, coordination, implementation, administration, and direction of the HM program within HQ and the field in support of FRA's safety mission, objectives, planning, and execution.
- Serves as the FRA principal HM advisor to the Director, Office of Railroad Infrastructure and Mechanical.

3.2.2 Deputy Staff Director District Operations

- Plans, develops, coordinates, and directs the Division's field operation program and district employees in support of FRA's safety mission, objectives, and policies; and

provides managerial direction and technical guidance over subordinate district elements and employees.

- Manages district HM Supervisory Specialist and Inspector support to the State Participation Program relating to HM operating practices, including monitoring State inspection activities for consistency with FRA's safety enforcement policies and programs and other safety-related aspects of the program.
- Serves as an advisor to the HMD Staff Director (SD) on district operation issues on safety-related or administrative programs and provides technical guidance and support to DSD – HM Safety Management System and Risk Reduction Programs (DSD-SMS&RRP).
- Makes recommendations on the assignment and use of the Division's district resources based on analysis of data from FRA's safety databases, the needs of the Railroad Safety Management Teams (SMTs) and other considerations.

3.2.3 Deputy Staff Director Safety Management System/Risk Reduction Plan

- Plans, develops, coordinates, and directs programs for HMD regarding Hazmat safety management systems and risk reduction programs that support FRA's mission, objectives, and policies; and provides managerial direction and technical guidance over subordinate HQ staff.
- Provides technical guidance and support to DSD – District Operations (DSD-District Ops), district elements and employees; and serves as an advisor to the HM SD on issues about safety-related or administrative programs.
- Serves as an advisor to the HMD SD on issues about safety-related or administrative programs; and makes recommendations on the assignment and use of the Division's HQ and district resources based on analysis of data from FRA's safety databases, the needs of the Railroad SMTs and other considerations.

3.2.4 Railroad Safety Specialist

- Serves as a technical expert and senior consultant on railroad transportation of HM.
- Provides expert advice and assistance to the HMD SD on Federal rules and regulations promulgated under the authority of the Federal Railroad Safety Act of 1970 and The Hazardous Materials Transportation Act of 1975 and its subsequent amendments.
- Provides special permit reviews, violation analysis, and preparation of reports for public issuance.

3.2.5 Railroad Safety Specialist (RAM)

- Coordinates planning and implementation of shipments of high-level and spent nuclear fuel with the Department of Energy (DOE), Nuclear Regulatory Commission, State representatives, Tribes, and other stakeholders.

- Reviews and administers the Safety Coordination Compliance Oversight Plan (SCCOP) for transportation of spent nuclear fuel safety programs.
- Partners with the DOE on the Preliminary Evaluation of Removing Used Nuclear Fuel from Shutdown and Active Nuclear Sites.
- Provides rail carrier oversight of the Electronic Data Interchange (EDI) for radioactive materials requirements.
- Serves as a classroom and hands-on training resource for inspectors within each district covering all aspects of radioactive material transportation by rail.

3.2.6 Railroad Safety Specialist Accident Chief

- Manages and coordinates accident and incident investigations reported in accordance with 49 C.F.R. Part 225 and other accident reports, and special projects relating to railroad incidents.
- Supports all segments of the accident/incident investigation process as documented in the FRA Office of Safety Accident Investigation Process and General Manual.
- Leads, manages, facilitates, and advises during each segment of an investigation, based on discipline leadership requirements.

3.2.7 Program Analyst

- Provides day-to-day business operations, technical analysis, and support activities with responsibilities in the areas of data and analytics strategy, reporting, information governance, database management, and/or communications.
- Assists in the development, communication and monitoring of departmental standards including data governance standards and standard operating procedures.
- Assists in the development of policies, plans, and strategies to improve departmental data management.

3.2.8 District Hazardous Materials Supervisory Specialist

- Plans, develops, coordinates, and directs programs for HM district employees in support of FRA objectives, policies, and missions.
- Provides managerial direction and technical guidance over subordinate district elements and employees.
- Serves as an advisor to the HM SD and DSDs on district level issues pertaining to safety related or administrative programs.

- Makes recommendations on the assignment and use of the Division’s district resources based on analysis of data from FRA’s safety databases, the needs of the Railroad SMTs and other considerations.

3.2.9 Hazardous Materials Inspector

- Conducts investigations including Non-Accidental Releases (NAR) of HM and railroad accidents.
- Evaluates regulatory compliance of companies who offer HM shipments by rail within an assigned territory.
- Inspects Class I, II, and III railroads for compliance with the HM regulations and assists in educating railroad personnel to enhance compliance with Federal regulations.

3.2.10 Hazardous Materials Administrative Specialist

- Provides administrative and program support to the division by planning, performing, and coordinating functions necessary for efficient operation.
- Provides analytical support to the staff director, deputy staff director, and other appropriate staff members within the division assigned.
- Divisional liaison for administrative matters with the RRS HQ Business Operations and Strategy (BOS) Division staff.

3.3 Organization of Tank Car Team



3.4 Responsibilities of Tank Car Team

The Office of Railroad Safety Tank Car Team is responsible for the compliance oversight of all DOT specification railroad tank cars used for transportation of any products. They are additionally responsible for the compliance oversight of non-DOT specification tank cars used for HM transportation.

3.4.1 Program Manager

- Plans, develops, coordinates, directs, and administers the Team’s operational program in support of FRA safety objectives, policies, and missions; provides managerial direction and technical guidance for team members.
- Responsible for safety program coordination with PHMSA, Transport Canada, the National Transportation Safety Board (NTSB) and other stakeholder agencies and organizations for tank car safety initiatives.
- Provides subject matter expertise and direction to FRA and PHMSA staff to ensure that railroad tanks cars used for the transportation of HM are in a safe and compliant state.
- Serves as the FRA principal HM advisor to the SD, Motive, Power, and Equipment (MP&E) Division on all hazardous material tank car and tank car tank issues.

3.4.2 Tank Car Quality Assurance Specialist

- Conduct inspections of tank car facilities to advance the progress of quality assurance for tank car manufacturing, maintenance and qualifications while ensuring tank car safety and compliance.
- Perform field investigations of tank cars that have failed in transportation or that are involved in derailments to assess damage and state of compliance.
- Provides subject matter expertise and guidance to other FRA staff for inspection, investigation and decision-making efforts on issues related to tank car safety.

3.4.3 General Engineer

- Perform inspections of tank car owners to advance the compliance and progress of their tank car qualification and maintenance programs that are used to ensure tank cars remain railworthy throughout their qualification intervals.
- Analyze requests for issuance of tank car Alternative Inspection Programs, Increased Gross Weight, Performance Standard Requirements for DOT-117P specification tank cars and PHMSA Special Permits and Competent Authority reviews.
- Provides subject matter expertise and guidance to other FRA and PHMSA staff for regulatory interpretations, incident investigations and rulemaking efforts related to tank car design and use.

CHAPTER 4 – INSPECTOR SAFETY

The HMD follows the guidance set forth in FRA’s Safe at Work booklet and appendices as reference for all written safety policy, instructions, and best practices.

When conducting an inspection at any location, all FRA personnel should comply with the safety rules and practices of the entity being inspected. This includes each railroad, shipper, transload, intermodal, and any other facilities where FRA has the authority to inspect.

A regulated entity may require FRA personnel to watch and or review safety practices before inspection BUT are not to take any safety tests or sign any documents provided by the entity being inspected, including sign-in sheets or liability waivers.

CHAPTER 5 – RISK-BASED PRIORITIZATION

RRS emphasizes use of data-driven safety analyses. Use of RRS data analyses facilitates an efficient and results-oriented enforcement and compliance program.

5.1 Asset Inventory of Railroads and Shippers

The Asset Inventory of Railroads and Shippers (AIRS) application (1) is an inventory of inspection points and assets identified by each discipline, (2) provides the ability for users to use tables to record data input, reports, and other pertinent factual information, and (3) ensures data collection methods and data maintenance are consistent within each discipline. The application enables a user to assign geographic areas, or “points,” to a territory code, which is then assigned to an inspector. Each discipline collects data, referred to as inventory, that is unique to that discipline. Each point within an inspector’s territory has inventory data. The data captured in the application provides meaningful reports that enable inspectors to carry out FRA’s safety mission.

The application offers an inventory of inspection points and assets for HM, MP&E, Operating Practices (OP), Signal and Train Control (S&TC) and Track. OP, S&TC and Track have one inventory set collected and summarized per discipline. HM has inventory collected and summarized by three inspection types: railroad, shipper, and other. The MP&E Tank Car Team has inventory collected and summarized by three inspection entities as well: railroad, tank car facility, and tank car owner.

5.2 Territory Optimization Planning System

Territory Optimization Planning System (TOPS) is a discipline-specific ArcGIS Online (AGOL) web application that provides at-a-glance views of FRA data from a variety of sources. The objective of TOPS is to provide information to discipline leadership for use in balancing workloads across territories and it provides inspectors with a user interface that enables them to communicate and document inspection priorities within territories.

TOPS territories and inspection locations are based on the data AIRS system, and human resources data on duty station locations. Other data sources include railroad incident reports through Forms FRA F 6180.54 (reported accident/incidents), 6180.55a (injuries, illness, and fatalities), and 6180.57 (highway-rail grade crossing accidents/incidents); the North American Rail Network (NARN); and the Bureau of Transportation Statistics (BTS) road network.

5.3 Risk-Based Inspections

FRA plans its enforcement activities and initiatives based upon many considerations, including statutory requirements and congressional mandates, executive orders, review of relevant safety statistics, results of prior inspections and investigations, and recommendations from the NTSB and the DOT Office of Inspector General (OIG).

TOPS serves as an inspection planning tool that uses “risk-based” methodology to evaluate and prioritize HM shipper and railroad inspections. The HM risk model for shippers and carriers incorporates the following basic elements: (1) inspection history; (2) safety history; (3) inspection frequency; and (4) additional HM packaging and commodity risk factors to calculate a comprehensive risk index in order to prioritize inspections.

HM inspections planning uses a three-pronged approach. First, an initial baseline plan is established for each of the eight districts. The HMD sets goals derived from models based on trend analyses and other data that guide district inspection activity and resource allocation for each shipper and railroad. Second, leadership adjusts the respective district plans to reflect emerging issues. Lastly, the risk-based inspection plan is reviewed by district and HQ leadership to monitor the progress of district inspections during the fiscal year.

FRA inspectors should also use FRA's accident, injury, and inspection data (available on FRA's secure site), as well as data available from other sources (e.g., PHMSA) to gain insight into the types of violations that cause large numbers of accidents, incidents, and/or injuries. The data equips enables inspectors to weight criteria concerning the inherent seriousness of violations and the level of risk posed in specific circumstances. At the same time, an inspector's direct observations and experience are an important element of enforcement discretion.

CHAPTER 6 – INVESTIGATIONS

This chapter outlines the investigation process. Depending on the circumstances, inspectors will perform multiple types of investigations. Types of investigations that are conducted by the HMD include complaints, accident or incident investigations, causality investigations, special investigations, waiver investigations, one-time movement approval (OTMA) investigations, and hazardous materials incident investigations (HMII). Specific circumstances dictate the types of documentation reviewed and the aspects of HM transportation analyzed. Investigations and analyses of the data collected are used to support the strategic goal of the DOT, FRA, and the HMD — reducing the risk of unintended HM release in transportation, in both accident and non-accident conditions.

The inspector should follow a hierarchy when planning and performing duties. The inspector may be asked at any time to lead, or assist with, an investigation. Due to their time-sensitive nature, investigations will take priority over routine inspection activities, and may remain the inspector's number one priority for an extended period depending on the severity and complexity of the accident or incident.

6.1 Complaint Investigation

There are two types of complaints: congressional complaints and those filed by railroad employees, labor organizations, other government agencies, or the general public.

6.2 Accident or Incident Investigation

FRA investigates major accidents or incidents that meet any one of certain thresholds or criteria. FRA is primarily notified of an accident or incident by the National Response Center (NRC) based on telephonic reports of accidents or incidents in accordance with 49 C.F.R. § 225.9 or by railroad carriers directly notifying a SMT or other Office of Safety staff.

6.3 Causality Investigation

Fatality (FE) investigations are investigations conducted after the death of an on-duty railroad employee, contractor, or volunteer occurs, that was the result of railroad operations. The purpose of the FE investigation is to identify all contributing factors to operational fatalities in the rail industry. FE investigations are documented on Form FRA F 6180.55a (injuries, illness, and fatalities) and submitted to the appropriate Office Director, or designee, for review and concurrence.

6.4 Special Investigation

Special investigations are investigations initiated for a specific reason or purpose not otherwise identified.

6.5 Waiver Investigation

Waiver investigations are inspections to either investigate requests for temporary relief from Federal regulations or validate compliance with any waiver conditions already in effect.

6.6 One-time Movement Approval Investigation

OTMA investigations are initiated based upon information contained in a one-time movement approval application.

6.7 HMII Investigations

HMII program focuses on the reduction of NARs by identifying systemic causes and contributing factors of NARs. An investigation will be initiated when FRA becomes aware of a hazardous material release or other incidents involving HM packagings.

CHAPTER 7– INSPECTIONS

Comprehensive inspections are critical to HM transportation safety. FRA verifies compliance with Federal regulations and utilization of industry best practices. Inspections cover the full range of pre-transportation functions (e.g., classification, training, OTMA implementation, package securement). Moreover, FRA inspections provide an opportunity to educate shippers and provide a clear and consistent message regarding all pre-transportation functions.

7.1 Types

This chapter outlines the inspection types. Depending on the circumstances, inspectors perform different types of inspections. Generally, there are five reasons for conducting hazmat-related inspections: (1) regular inspections; (2) special inspections; (3) special permit inspections; (4) nuclear route inspections; and (5) re-inspections.

7.1.1 Regular Inspection

Regular inspections require inspectors to periodically inspect various types of facilities (e.g., railroads, offerors, contractors, or manufacturing facilities) and HM packagings within their assigned territories to determine compliance with Federal safety regulations.

7.1.2 Special Inspection

Special inspections are initiated for a specific reason or purpose not otherwise identified.

7.1.3 Special Permit Inspection

Special Permit (SP) inspections are conducted to evaluate compliance with the terms and conditions established within the SP.

7.1.4 Nuclear Route Inspection

Nuclear route inspections are conducted in support of FRA's radioactive SCCOP.

7.1.5 Re-inspection

Re-inspections may be undertaken after an initial inspection that discovers non-compliance with the HMR. These inspections should be conducted within a reasonable time after the violation or deficiency was discovered. In cases of less egregious violations or deficiencies, inspectors and specialists may exercise discretion in scheduling follow-up inspections to balance with other inspection priorities.

7.2 Locations of Hazmat Inspections and Common Components of Inspections

Because of the extensive nature of hazmat transportation, inspectors conduct activities at a wide range of facilities and operations discussed in this chapter. Since the regulations are function-specific, the locations described in this chapter may not be all inclusive.

7.2.1 Railroad Customer Service Centers

Where customer service centers exist, inspections are performed to determine the carrier's compliance with the documentation requirements of the HMR.

7.2.2 Railroad Yards and Other Inspection Points

The purpose of an HM inspection at a railroad yard is to determine compliance with the operation of trains, handling of placarded cars, and the inspection of HM shipments.

7.2.3 Intermodal Facilities (Agent/Broker and Actual Facilities)

Intermodal inspections are performed to determine whether shipments offered to rail carriers from other modes of transport comply with the rail transportation requirements. The inspection requirements for intermodal shipments are generally the same as railroad customer service centers and yard inspections. Follow-up inspections may take place at a non-railroad entity, such as a freight forwarder, broker, or an agent's place of business.

Intermodal shipments exported or imported into the United States are generally controlled by an agent or broker. Although the agent or broker may appear as the offeror and as such may be responsible for performing certain functions in accordance with the HMR, this does not change the original offeror's duty to comply with the HMR.

7.2.4 Shipper/Offeror Facilities

The purpose of this type of inspection is to determine if persons²⁷ who offer HM for transportation by railroad do so in compliance with the HMR. Inspections of this type are conducted at facilities that offer or receive HM by rail including intermodal offerors who do not have direct rail access.²⁸ Inspections will cover the full range of pre-transportation function²⁹ (e.g., classification, training, OTMA implementation, package securement). Shipper inspections will be comprised of four general regulatory elements: Special Permits, registration, training, document retention, package selection, as well as safety and security.

7.2.5 Tank Car Facility Inspection

Tank car facility is defined in the HMR as any entity that manufactures, repairs, inspects, tests, qualifies, or maintains a tank car to ensure that the tank car conforms to Part 179 and Subpart F of Part 180 of the HMR, that alters the certificate of construction of the tank car, that ensures the continuing qualification of a tank car by performing a function prescribed in Parts 179 or 180, or that makes any representation indicating compliance with one or more of the requirements of Parts 179 or 180.³⁰ FRA inspects these facilities to assess their compliance with the HMR concerning the functions they perform in accordance with the regulations.

²⁷ Under the HMR, the term "person" is broadly defined, and includes companies and corporations as well as individuals. For the purposes of the regulations, offerors and carriers are considered persons.

²⁸ Consistent with 49 C.F.R. § 171.8's definition of "offeror," an Ocean Transportation Intermediary (Non-Vessel Operating Common Carrier) is considered an offeror when the intermediary performs any offeror function. When inspecting such entities, inspectors should concentrate on the specific functions that the intermediary performs.

²⁹ 49 C.F.R. 171.1 (b).

³⁰ 49 C.F.R. § 179.2 (g).

7.2.6 Tank Car Owner Inspection

Tank car owner as defined in the HMR is the person to whom a rail car's reporting marks are assigned, as listed in the Universal Machine Language Equipment Register (UMLER). FRA inspects these facilities to assess their compliance with the functions they are responsible for performing under the HMR.

7.2.7 Tank Car Damage Assessment

Tank Car Damage Assessment is a process carried out by FRA Staff where a tank car involved in a train derailment will undergo an assessment of accident damage, which is recorded for accident performance data and analysis. The assessment data is used to determine both positive and negative performance characteristics of DOT specification tank cars. At the time of the assessment, FRA Staff also inspects the car for conformance to its design requirements and any contributing factors that may have added to the severity of accident, such as release of hazardous material, or a catastrophic failure of the packaging.

CHAPTER 8 – REPORTING

Data quality is vital at all levels of the organization to ensure adequate use of FRA’s limited inspection/investigation resources. Because of this, it is essential that inspectors consistently and accurately report their results and findings related to inspection/investigation activities.

HM inspectors routinely generate the following types of reports on U.S. Office of Management and Budget-approved forms:

- Inspection reports (Form FRA F 6180.96)
- Violation reports (Form FRA F 6180.110)
- Notice to individual of alleged violations (Form FRA F 6180.80)
- HM incident or complaint investigation reports (via memorandum)

8.1 Inspection Report (Form FRA F 6180.96)

Inspection reports are completed electronically using the Railroad Inspection System for Personal Computers (RISPC). For every inspection made, there is a corresponding inspection report.

8.2 Violation Report (Form FRA F 6180.110)

When an inspector discovers a violation, and he or she determines that the best method of gaining compliance with the applicable regulation is a recommendation for a civil penalty, the inspector must complete a Form FRA F 6180.110 (violation report) electronically that accompanies the inspection report.

8.3 Notice to Individual of Alleged Violation (Form FRA F 6180.80)

“Notice to Individual of Alleged Violation” (Form FRA F 6180.80) is used to provide notice to railroad employees regarding violations of Federal railroad safety or hazmat laws or regulations.

8.4 Special Investigation Reporting

8.4.1 HMII

HMIIs must be reported on Form FRA F 6180.96.

8.4.2 Special Permit Recommendations/Fitness Evaluation Recommendations

Assigned fitness evaluation/recommendations must be reported using a memorandum or other suitable regional reporting mechanism.

8.4.3 Complaint Investigation

Complaint investigations should be reported on a memorandum.

CHAPTER 9 – SECURITY SEAL

9.1 Authority

Federal law authorizes FRA inspectors to inspect records and property related to railroad safety, including HM transportation safety. The Federal HM statutes authorize inspection, “at a reasonable time and in a reasonable way,” of records and property related to the transportation of HM in commerce; the Federal railroad safety law authorizes, “at a reasonable time and in a reasonable way,” inspection of “railroad equipment rolling stock, operations, and relevant records.”³¹ Conducting inspections in a reasonable way requires, among other things, that seals be replaced in kind to maintain equivalent security.

FRA orders Customs-Trade Partnership Against Terrorism (C-TPAT) compliant seals for use by its inspectors. Inspectors may use seals from other agencies (e.g., the Federal Highway Administration) when conducting joint inspection activities with those agencies. Below is a photograph of seals currently used by FRA personnel.



³¹ 49 U.S.C. §§ 20107(b) and 5121(c)(1).

9.2 Seal Security

Inspectors must provide positive control of a shipment after a seal has been removed and until the shipment is resealed. Positive control means remaining with the item of inspection until it is resealed.

When accompanied by railroad personnel, inspectors should offer the railroad employee the opportunity to remove and replace any seals necessary to be broken for inspection. This process allows carriers to maintain seal control for their security purposes. If the railroad employee cannot or will not remove and replace seals, the inspector should do so consistent with the needs of his or her inspection.

9.3 Notification

Shippers are notified of the removal of a seal or seals in one of two ways: (1) if a defect is reported on a Form FRA F 6180.96, the report must include the identifying mark (letters or numbers) of the removed and replacement seals or (2) if no defect is found, the presence of an agency-issued FRA seal will be deemed adequate notice that an FRA inspector has removed a shipper seal to inspect for compliance.

CHAPTER 10 – ENFORCEMENT AND COMPLIANCE PROGRAM

The following chapter provides a broad overview of FRA's enforcement and compliance program and discusses the various enforcement tools that FRA may utilize to encourage compliance with the HMR.

10.1 Determining When and What Enforcement Action Is Necessary

FRA has found that the effective use of enforcement authority requires the informed exercise of discretion, beginning with the FRA inspector on the ground. FRA relies on the nuanced perceptions and experience of inspectors who are most familiar with the safety practices and specific operations of railroads and shippers operating in distinct geographic areas, facilities, and areas of industry specialization.

Enforcement discretion helps ensure that agency use of limited resources is calibrated for efficiency and effectiveness, from the identification of serious safety concerns to the remedial action necessary to ensure safety in transportation by rail.

FRA periodically analyzes inspection data to determine patterns of noncompliance or other problem areas that necessitate more stringent or broad-based enforcement actions. Personnel in the district and at the district level work with HQ to leverage FRA's accident and incident data, as well as data available from other public agencies (such as the NTSB or PHMSA) to gain insight into the types of violations that cause accidents, incidents, and/or injuries. FRA also uses focused inspections to maximize scrutiny of known hazards, from rail traffic along hazardous routes to older tank cars with special safety considerations. This data equips inspectors to assess the seriousness of violations and the level of risk posed in specific circumstances.

Combining inspectors' direct observations and experience with the best data available positions FRA to determine a railroad or shipper's overall safety record and commitment to improving safety, particularly regarding the specific regulation in question. Based on that determination and other factors, FRA selects the most appropriate enforcement approach.

Options range from less stringent enforcement measures, such as informal warnings, to the assessment of civil penalties or other elevated enforcement actions detailed below.

10.2 Factors to Consider When Enforcing the Hazardous Materials Regulations

In determining which instances of noncompliance merit civil penalties, inspectors will consider (1) The inherent seriousness of the condition or action; (2) The kind and degree of potential safety hazard the condition or action poses in light of the immediate factual situation; (3) Any actual harm to persons or property already caused by the condition or action; (4) The offending person's (i.e., railroad's or individual's) general level of current compliance as revealed by the inspection as a whole; (5) The person's recent history of compliance with the relevant set of regulations, especially at the specific location or division of the railroad/company involved; (6) Whether a remedy other than a civil penalty (ranging from a warning on up to an emergency

order) is more appropriate based on the facts; and (7) Such other factors as the immediate circumstances make relevant.³²

10.3 Enforcement Tools

Below is a brief discussion of each of the available enforcement tools. In consultation with the district specialist and in certain circumstances described below, HQ specialists, and the Office of Chief Counsel, inspectors consider all available enforcement options when determining the appropriate course of action.

10.3.1 Defect Notices

When an inspection reveals noncompliance with the HMR, each noncomplying condition should be listed in an inspection report that FRA sends to the railroad, shipper, tank car manufacturer, or other regulated entity.

10.3.2 Violation with Civil Monetary Penalties

Of all the enforcement tools available, inspectors recommend violations with civil penalties against railroads, shippers, tank car manufacturers, and other regulated entities most frequently. The civil penalty enforcement system, while only one aspect of FRA's safety enforcement program, is vital to FRA's safety mission. To assess a civil penalty, FRA must prove a "knowing" violation of the HMR. A person (an entity or individual) acts knowingly when they knew or should have known the facts giving rise to the violation or if a reasonable person acting in the circumstances and exercising due care would have such knowledge. In most cases, the offering, acceptance, or transporting of a non-compliant shipment is the "triggering event." The date of this "triggering event" is typically the "violation occurred" date. To substantiate a violation, the inspector must prove (1) the conditions or events occurred; and (2) that a person knew or should have known of the occurrence of these conditions or events—i.e., knowledge of the facts.

Once a violation report is received by RCC and assigned to the appropriate attorney, the attorney reviews the violation report package for legal sufficiency, inclusion of only appropriate materials, and determines the appropriate penalty amount, taking the Civil Penalties Schedules and Guidelines (Guidelines)³³ and any enhanced penalties request into consideration.

When the assigned attorney transmits a case, the respondent is issued a Notice of Probable Violation (NOPV) that includes a summary of the alleged violation(s) and the proposed civil penalty. The inspector's violation report, inspection report, and supporting materials accompany the NOPV. Following the NOPV is an explanation of respondent options as laid out in 49 C.F.R. Part 209, Subpart B. Respondents may: 1) pay the total proposed penalty; 2) respond informally by submitting a written explanation and information in answer to, or in mitigation of, the charges (and request an informal conference to discuss the written explanation); and/or 3) request a formal conference before a hearing officer designated by the Office of the Chief Counsel.

Failure to respond within 30 days of the date of issuance constitutes a waiver of any right to appear and contest the merits of the allegations or the amount of the proposed penalty before

³² 49 C.F.R. Part 209, Appendix A.

³³ <https://railroads.dot.gov/legislation-regulations/civil-penalties-schedules-guidelines>.

FRA or any court and authorizes FRA to find the facts as alleged and assess a penalty in the amount proposed in the NOPV.

10.3.3 Enhanced Penalties

FRA may assess civil penalties, bounded by minimum and maximum values set by statute, and adjusted annually for inflation. FRA has statutory authority to take a violation for each day a violation occurs or, if a violation is continuing, until the railroad, shipper, or other regulated entity, corrects the problem. FRA may also pursue civil penalties above the guideline amount listed in the penalty schedule, capped at the statutory maximum. In addition to the evidence needed to support any violation, inspectors recommending an extraordinary maximum penalty must explain why the violation is extraordinary and why the penalty should be higher than the penalty schedule amount. FRA may also pursue aggravated maximum penalties when the violation is knowing and resulted in death, serious illness, or severe injury or substantial destruction of property.³⁴

10.3.4 Railworthiness Directives

If FRA determines that a tank car or a class or design of tank cars may be in an unsafe operating condition, FRA may require that the car or cars be inspected without regard to any other periodic inspection requirements. A railworthiness directive (RWD) describes the condition or defect and orders the testing and inspection of the tank car(s). An RWD also requires correction of all defects and unsafe conditions, whether determined by Federal standards or under the Association of American Railroads (AAR) Tank Car Manual.³⁵

10.3.5 Compliance Orders

In accordance with 49 C.F.R. Part 209, Subpart C, FRA may commence a proceeding when FRA has reason to believe that a person is engaging in conduct or a pattern of conduct that involves one or more violations of the Federal railroad safety laws or HMR. A compliance order may be issued against a respondent after providing the respondent with both notice that FRA has reason to believe that the respondent has committed one or more violations of the HMR and an opportunity for an administrative hearing, in which FRA requires the respondent to take certain remedial action to promote its compliance with those laws. The order may be issued either by FRA's hearing officer or, if by consent of the respondent, by FRA's Administrator.

10.3.6 Emergency Orders

In accordance with 49 U.S.C. § 5121, if FRA determines, based on testing, inspection, investigation, or research, that an unsafe condition or practice (or combination) causes an imminent hazard, FRA may issue an emergency order to impose restrictions or prohibitions necessary to abate the imminent hazard. A hazard is "imminent" if it is reasonably likely to result in death or serious injury to the public or railroad employees before a civil penalty action or compliance order proceeding could be expected to produce a remedial action. RRS must work closely with RCC to pursue this type of remedy.

³⁴ 49 U.S.C. § 5123.

³⁵ 49 C.F.R. § 180.509.

10.3.7 Injunctions

An injunction is a court order from a U.S. district court judge requiring a party to comply with the law immediately. This tool could be used to stop a pattern of violations. RRS must work closely with RCC to pursue this type of remedy.

10.3.8 Criminal Penalties

FRA is a civil agency without criminal investigative authority. If an inspector becomes aware of a possible willful or reckless violation of the Federal HM transportation laws, the inspector should report circumstances that may involve criminal violations to RCC.

Additionally, the DOT OIG maintains a Hotline for receiving allegations of fraud, waste, abuse, or mismanagement affecting DOT's programs or operations. Allegations may be reported to the OIG 24 hours a day, seven days a week, by DOT employees, contractors, or the public. They may call: (800) 424-9071 or email: hotline@oig.dot.gov directly. If an FRA inspector or district specialist believes that there may be violations with criminal implications, they may refer the matter directly to the OIG for investigation. An example of a possible criminal violation would be falsifying HM training records. Office of Railroad Safety employees are not required to consult with Office of Chief Counsel before referring suspected criminal violations to the OIG. However, Office of Chief Counsel is available to assist in the preparation of referrals to OIG, if requested.

10.3.9 Individual Liability (Railroad Employees Only)

FRA generally has authority to take enforcement action against individuals who are employed by railroads when their actions contribute to a violation of the Federal HM safety laws, or they demonstrate they are unfit for safety-sensitive service under 49 C.F.R. Part 209, Subpart D. There is generally a 5-year statute of limitations.

Individual liability (IL) is an important tool which should be used judiciously, and with discretion, to achieve compliance. An IL should be considered in situations where deterring a particular individual's noncompliance would be most effective (i.e., the violation arose from the individual's own decision-making). FRA has discretion to pursue enforcement action against the railroad, the individual, or both. That decision depends on the culpability of the respective parties. Early communication between the investigating inspector and district specialist on potential IL liability issues is critical.

For the typical IL action, the FRA inspector discovers the violation and identifies the individual for potential individual enforcement action during normal inspection duties, accident investigations, or complaints. The inspector conducts the investigation and gathers supporting evidence such as witness statements, reports of interview, and photos. The inspector confirms with RRS management that the IL action aligns with policy and consults the RRS IL subject matter expert to determine whether to pursue an IL.

CHAPTER 11 – NOTIFICATIONS AND APPROVALS

11.1 Notifications

The shipper shall notify the Federal Railroad Administration whenever a tank car loaded with a flammable cryogenic liquid, hydrogen chloride refrigerated liquid, or vinyl fluoride is not received by the consignee within 20 days from the date of shipment. Notification to the Federal Railroad Administration may be made by e-mail to Hmassist@fra.dot.gov or telephone call to (202) 493-6229.³⁶

11.2 Approvals

11.2.1 One-Time Movement Approvals

FRA's process to allow movement of non-complying bulk packages for a special purpose (usually repair) under specified conditions ensuring the safety of the rail movement. (*See* 49 C.F.R. § 174.50.)³⁷ Granting of such authority does not relieve a party from any liability applicable to such movements. Additionally, an OTMA approval issued by FRA is only applicable to movements of a nonconforming bulk package/packaging by rail within the United States.³⁸

The OMTA process also provides an informational database that can identify systemic problems with a particular series of tank car or valve, as well as documents the root cause and contributing factors of defective conditions.

The information obtained as a result of the movement approval process may identify facilities that have procedural problems and require assistance in ensuring that their practices, in regard to package preparation for transportation, are adequate to ensure regulatory compliance and safety.

Further guidance on the OTMA process is explained in the current version of [Hazardous Materials Guidance \(HMG\)-127](#) available for review on FRA's website.

11.2.2 COFC/TOFC Approval

A carrier may not transport a bulk packaging (e.g., portable tank, IM portable tank, IBC, Large Packaging, cargo tank, or multi-unit tank car tank) containing a hazardous material in container-on-flatcar (COFC) or trailer-on-flatcar (TOFC) service except under conditions specified in 49 C.F.R. § 174.63 or approved for transportation by the Associate Administrator for Safety, FRA.

³⁶ 49 C.F.R. §§ 173.314 and 173.319.

³⁷ FRA and PHMSA developed a process to increase movement efficiency without compromising the safety of HM transportation. The final rule (Docket HM-216, 61 Fed. Reg. 28677, June 5, 1996) consolidated and revised 49 C.F.R. §§ 174.47, 174.48, and 174.50 (§ 174.50 already allowed for short movements of nonconforming or leaking packages under certain conditions) into the current § 174.50. The new section prohibited the movement of bulk packagings, as defined in 49 C.F.R. § 171.8, that do not conform to the HMR without prior approval, or unless a short movement will reduce or eliminate an immediate threat or harm to human health or the environment.

³⁸ Cross-border movements to or from Canada must be moved in accordance with the Transportation Dangerous Goods (TDG) Regulations (see § 171.12) or a Temporary Certificate issued by the Competent Authority of Canada, as applicable. Cross-border movements to or from Mexico require an applicant to coordinate with the appropriate Mexican agency representatives.

11.2.3 Cylinders in COFC/TOFC Service

Cylinders may not be transported by rail in container on freight car (COFC) or trailer on flat car (TOFC) service except under conditions approved by the Associate Administrator for Safety, Federal Railroad Administration.³⁹

11.2.4 Increase Gross Weight

DOT specification tank cars may only be operated above 263,000 pounds (119,295 kg) gross weight on rail if they meet the design requirements detailed in “Operating Certain Railroad Tank Cars in Excess of 263,000 Pounds Gross Rail Load; Approval, 72 FR 4250 (January 25, 2011).” Tank cars that do not meet these prescriptive design requirements must have a demonstrated equivalent level of safety. FRA will analyze design criteria for demonstrated equivalent level of safety and approval by the Associate Administrator for Railroad Safety/Chief Safety Officer, FRA.⁴⁰

11.2.5 Performance Standard Requirements DOT-117P Specification Tank Cars

Tank cars that do not meet DOT-117 specification requirements may be designed and constructed as DOT-117P specification tank cars provided they have a demonstrated equivalent level of safety (i.e., equal to the performance standards of a DOT-117 tank car). FRA will analyze design, testing, and modeling results for demonstrated equivalent level of safety and approval by the Associate Administrator for Railroad Safety/Chief Safety Officer, FRA.

11.2.6 Alternative Inspection and Test Procedures

DOT specification tank cars may have maintenance and qualifications performed that deviate from the requirements of 49 C.F.R. Part 180, Subpart F. A tank car owner, or a coating or lining owner may use an alternative inspection and test procedure, or interval based on a damage-tolerance analysis or based on a service reliability assessment supported by analysis of systematically collected data. FRA will analyze each service reliability assessment and damage-tolerance analysis for demonstrated equivalent level of safety and approval by the Associate Administrator for Railroad Safety/Chief Safety Officer, FRA.⁴¹

³⁹ 49 C.F.R. § 173.301(i)(3).

⁴⁰ 49 C.F.R. §179.13.

⁴¹ 49 C.F.R. §180.509.

CHAPTER 12 – HAZARDOUS MATERIALS GUIDANCE NOTICE

HMG-101 – OTMA	Rescinded - Superseded by HMG-127
HMG-102 – Specialized valve defects	Rescinded - Superseded by HMG-127
HMG-103 – Train Placement with Specially Equipped Tie Down Attachments	Issuance date: December 2017 This HMG clarifies the train placement rules in 49 C.F.R. § 174.85 as applied to certain TIX Company (TIX) flatcars.
HMG-104 – Class 207 - Pressure Differential Covered Hoppers	Issuance date: March 2018 The purpose of this HMG is to clarify issues surrounding Association of American Railroads (AAR) Class 207 cars.
HMG-105 – Railroad Security Plans and Routing	Issuance date: January 2018 This HMG discusses FRA inspection and enforcement requirements for HM security plans and security training required by 49 C.F.R. Part 172, Subparts H and I.
HMG-106 – Seals and Replacement	Rescinded - Incorporated into the Hazardous Materials Compliance Manual in 2017.
HMG-107 – RSPA final rule "Hazardous Materials Regulations; Compatibility with the Regulations of the International Atomic Energy Agency" HM-230 Final Rule	Rescinded
HMG-108	RESERVED

HMG-109 – Time-phased PIH Material Requirements	Rescinded - Compliance allowance expired in 2006.
HMG-110 – Fumigant Marking Applicability	Issuance date: February 2018 This HMG explains the requirements of the HMR applicable to the offering and the rail transportation of fumigated freight containers and rail cars, or containers or rail cars undergoing fumigation.
HMG-111 – Determining RQ for Hazardous Substance Residue	Issuance date: February 2018 This HMG explains FRA’s policy on the applicability of the HMR to the return of packagings containing a residue of a hazardous substance.
HMG-112 – Train Placement "Occupied Caboose" and "Dead-in-tow locomotive"	Issuance date: December 2017 This HMG explains FRA’s interpretation of the locomotive terms, “dead-in-tow” and “occupied caboose.”
HMG-113 – Asbestos Sheeting	Rescinded
HMG-114 – Marking and Placarding Multi-Compartment and Articulated Tank Cars	Issuance date: February 2018 The purpose of this HMG document is to provide FRA's interpretation of 49 C.F.R. §§ 172.336(c) and 172.504 as they pertain to the marking and placarding of multi-compartment and articulated tank cars.
HMG-115 – PIH Classification	Issuance date: May 2018 This HMG discusses the calculations that can be used to determine whether or not a material meets the poison-by-inhalation requirements of 49 C.F.R. § 173.132. As an illustration of these calculations, two safety data sheets (SDS) are analyzed.
HMG-116 – Tank Car Overdue for Qualification	Issuance date: March 2018 This HMG provides guidance regarding the movement of tank cars overdue for inspection/qualification.

HMG-117 – Definition of Sift-proof closed bulk packaging	Issuance date: March 2018 This HMG explains the meaning of "sift-proof packaging" and the practical effect of the term in the context of rail transportation.
HMG-118 – Tank Car Spray on Thermal	Issuance date: January 2018 The purpose of this HMG is to describe FRA policy addressing tank car "spray-on" thermal protection systems.
HMG-119	RESERVED
HMG-120 – 48-Hour Rule	Issuance date: December 2017 The purpose of this HMG is to clarify existing regulations at 49 C.F.R. §§ 174.14 (Movements to be expedited) and 174.16 (Removal and disposition of HM at destination).
HMG-121 – Reasonable Timeframe for Providing Requested Documents to FRA	Issuance date: February 2018 The purpose of this HMG is to explain FRA's policy regarding reasonable access to records pertaining to the safe transportation of HM by railroad.
HMG-122 – Acceptable Blocking and Bracing Practices	Issuance date: February 2018 This HMG clarifies the blocking and bracing requirements of 49 C.F.R. § 174.55.
HMG-123 – Definition of a Train	Issuance date: January 2018 This HMG provides guidance on the application of the term "train" as defined in the HMR at 49 C.F.R. § 171.8. The term is relevant to determining when the HMR's train placement and hazard communication requirements apply. <i>See</i> 49 C.F.R. § 174.85 and 49 C.F.R. Part 172, Subparts C-G.
HMG-124 – Placarding White Square Background	Issuance date: December 2017 The purpose of this HMG is to provide FRA's interpretation of 49 C.F.R. §§ 172.508(a) and 172.510(a) as they pertain to the use of the white square background for placards.
HMG-125 – Root cause analysis	Rescinded

HMG-126 – Product purity linings and coatings	Rescinded
HMG-127 – One-Time Movement Approval Procedures	Issuance date: October 2024 This HMG summarizes the procedures for applying for an FRA OTMA in accordance with 49 C.F.R. § 174.50.
HMG-128	RESERVED
HMG-129	RESERVED
HMG-130 – Phase Out Schedule for DOT-111 Tank Cars	Issuance date: December 2017 This HMG clarifies FRA enforcement policy regarding the mandatory phase-out of DOT-111 tank cars in Class 3 flammable liquid service.
HMG-131	RESERVED
HMG-132	RESERVED

APPENDICES

Appendix A – TWIC Card



TWIC INFORMATIONAL BULLETIN

List of Agencies Qualifying for the “Federal Officials” Exemption

Federal officials and Law Enforcement officials are not required to obtain or possess a TWIC in order to gain or have unescorted access to MTSA regulated facilities and/or vessels while in the performance of their official duties (33 CFR 101.514(b), (c), (d)). This also includes contractors assigned to Federal agencies that are issued agency credentials (either HSPD-12 compliant credentials or the agencies official credentials currently in use) and to those State and local regulatory enforcement officials that are described in TWIC Policy Advisory Council Decision 01-07 (<http://homeport.uscg.mil/twic>).

The following list is provided to serve as a quick reference guide at access control points aboard MTSA regulated facilities and vessels; it is not intended to be all inclusive as there are numerous federal agencies with jurisdiction in and around the maritime transportation sector. All personnel with security duties including CSOs, FSOs, VSOs, and security guards should familiarize themselves both with this list and with the credentialing and/or uniforms (if applicable) from the below list of agencies.

Personnel with security duties are reminded that the TWIC exemption applies only to those Federal officials, Law Enforcement officials and Federal Government contractors who are entering while in the performance of their official duties and who have their respective agency/department credentials and/or Department of Defense Common Access Card (CAC) to provide for verification in accordance with 33 CFR 101.515(c).

- Army Corp of Engineers
- Centers for Disease Control
- Federal Bureau of Investigation
- Federal Emergency Management Agency
- Federal Grain Inspection Service
- Federal Railroad Administration
- National Marine Fisheries
- National Oceanographic & Atmospheric Administration
- National Science Foundation
- National Transportation Safety Board
- Pipeline & Hazardous Materials Administration
- Transportation Security Administration
- US Coast Guard
- US Coast Guard Auxiliary
- US Customs & Border Protection
- US Department of Agriculture
- US Department of Defense
- US Department of Energy
- US Department of Homeland Security
- US Department of Interior
- US Department of Transportation
- US Drug Enforcement Agency
- US Environmental Protection Agency
- US Immigration & Customs Enforcement
- US Maritime Administration
- US Marshals Service
- US Nuclear Regulatory Commission
- US Postal Service
- US Secret Service

** Security personnel are encouraged to contact their local Coast Guard Captain of the Port (COTP) with any questions regarding this bulletin and for clarification on agency and/or department officials not listed above.

Appendix B – Glossary & Acronyms

Acceptance: Consent to the terms of an offer in which consent creates a contract; implies the right to reject.

Administrator: The Administrator of the Federal Railroad Administration.

Agent: One who, by mutual consent, acts for the benefit of another; one authorized by a party to act on that party's behalf.

Associate Administrator: The Associate Administrator for Railroad Safety/Chief Safety Officer of the Federal Railroad Administration.

Broker: One who acts as an intermediary for a commission or fee, brings parties together, and assists in negotiating contracts between them.

Fitness: Demonstrated and documented knowledge and capabilities resulting in the assurance of a level of safety and performance necessary to ensure compliance with the applicable provisions and requirements of the Hazardous Materials Regulations, Special Permit, or approval issued under the regulations.

Freight Forwarder: A person who, having no interest in goods and no ownership or interest in the means of their carriage, undertakes (for hire) forwarding these goods by safe carrier to a destination.

General Manual: The manual that provides the general duties and responsibilities common to all district personnel of the Office of Railroad Safety.

Hazardous Materials Regulations or HMR: Title 49 Code of Federal Regulations (C.F.R.) Parts 100– 199.

Hazardous material, Hazmat, or HM: A substance or material, including a hazardous substance, which has been determined by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce, and which has been so designated.

Hazardous Material Incident: A HM event that requires the submission of a DOT Form 5800.1. See 49 C.F.R. §§ 171.15 and 171.16 (2024).

Inspection: Checking or reviewing a person against established laws, rules, regulations, and standards.

Inspection Report: Federal Railroad Administration Inspection Report Form FRA F6180.96, and the continuation sheet FRA Form F6180.96a.

Inspector: A Federal HM inspector and any authorized person acting in that capacity.

Investigation: An inspection or study by close examination and systematic inquiry of accidents, incidents, violations, or alleged violations of laws, rules, regulations, and standards.

Offer: A “manifestation of willingness to enter into a bargain, so made as to justify another person in understanding that his assent to that bargain is invited and will conclude it.” Restatement, Contracts (2d) § 24.

Offeror: A person who performs functions associated with offering a hazardous material for transportation. A person who offers packagings of a hazardous material or packages containing the residue of a hazardous material for transportation. Although the word “shipper” does appear in the HMR, it is used in an ordinary layman's manner rather than as a specific, technical term of art.

One-Time Movement Approval: The Federal Railroad Administration’s process to allow movement of non-complying bulk packages for a special purpose (usually repair) under specified conditions ensuring the safety of the rail movement. (See 49 C.F.R. § 174.50 (2024).) Granting of such authority does not relieve a party from any statutory liability applicable to such movements.

Person: An individual, corporation, company, firm, partnership, society, association, or joint-stock association, which includes any trustee, receiver, assignee, or personal representative thereof.

Pipeline and Hazardous Materials Safety Administration (PHMSA): The lead agency in the development of the HMR. The agency was formerly known as Research and Special Programs Administration.

Principal: “One who has permitted or directed another to act for his benefit and subject to his direction or control.” Seavey Law of Agency § 3 (1964)

Secretary: The Secretary of Transportation.

Special Permit: A document issued by the Associate Administrator of PHMSA under the authority of 49 U.S.C. § 5117 permitting a person to perform a function that is not otherwise permitted under Subchapter A or C of 49 C.F.R. or other regulations issued under 49 U.S.C. § 5101 et seq. (e.g., Federal Motor Carrier Safety Administration routing requirements). The terms “Special Permit” and “exemption” have the same meaning for the purposes of Subchapter A or C or other regulations under 49 U.S.C. § 5101 through 5127.

Violation Report: Hazardous Materials Violation Report Form FRA F 6180.110.