

**DEPARTMENT OF TRANSPORTATION****Pipeline and Hazardous Materials  
Safety Administration****49 CFR Parts 172 and 174**[Docket No. PHMSA-RSPA-2004-18730]<sup>1</sup>

RIN 2137-AE02

**Hazardous Materials: Enhancing Rail  
Transportation Safety and Security for  
Hazardous Materials Shipments**

**AGENCY:** Pipeline and Hazardous Materials Safety Administration (PHMSA), Department of Transportation (DOT).

**ACTION:** Interim final rule.

**SUMMARY:** The Pipeline and Hazardous Materials Safety Administration, in coordination with the Federal Railroad Administration and the Transportation Security Administration, is revising the current requirements in the Hazardous Materials Regulations applicable to the safe and secure transportation of hazardous materials transported in commerce by rail. This interim final rule fulfills requirements in Section 1551 of the Implementing Recommendations of the 9/11 Commission Act of 2007.

In this interim final rule, we are requiring rail carriers to compile annual data on certain shipments of explosive, toxic by inhalation, and radioactive materials, use the data to analyze safety and security risks along rail routes where those materials are transported, assess alternative routing options, and make routing decisions based on those assessments. We are also clarifying rail carriers' responsibility to address in their security plans issues related to en route storage and delays in transit. In addition, we are adopting a new requirement for rail carriers to inspect placarded hazardous materials rail cars for signs of tampering or suspicious items, including improvised explosive devices.

**DATES:** This interim final rule is effective June 1, 2008.

**Voluntary Compliance Date:** Voluntary compliance is authorized as of May 16, 2008.

**Comments:** Comments must be received by May 16, 2008.

**ADDRESSES:** You may submit comments identified by the docket number

PHMSA-RSPA-2004-18730 by any of the following methods:

- *Federal eRulemaking Portal:* Go to <http://www.regulations.gov>. Follow the online instructions for submitting comments.

- *Fax:* 1-202-493-2251.

- *Mail:* Docket Operations, U.S. Department of Transportation, West Building, Ground Floor, Room W12-140, Routing Symbol M-30, 1200 New Jersey Avenue, SE., Washington, DC 20590.

- *Hand Delivery:* To Docket Operations; Room W12-140 on the ground floor of the West Building, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

*Instructions:* All submissions must include the agency name and docket number for this rule. Note that all comments received will be posted without change, including any personal information provided. Please see the Privacy Act section of the preamble.

**FOR FURTHER INFORMATION CONTACT:** William Schoonover, (202) 493-6229, Office of Safety Assurance and Compliance, Federal Railroad Administration; or Susan Gorsky or Ben Supko, (202) 366-8553, Office of Hazardous Materials Standards, Pipeline and Hazardous Materials Safety Administration.

**SUPPLEMENTARY INFORMATION:****I. Background**

Hazardous materials are essential to the economy of the United States and the well being of its people. Hazardous materials fuel motor vehicles, purify drinking water, and heat and cool homes and offices. They are used for farming and medical applications, and in manufacturing, mining, and other industrial processes. Railroads annually carry over 1.7 million shipments of hazardous materials including explosive, poisonous, corrosive, flammable and radioactive materials. As common carriers, railroads are obligated to accept hazardous cargo that is tendered in compliance with legal requirements, whether or not they would choose to do so for business reasons. This common carrier obligation ensures that offerors are given the opportunity to ship hazardous materials, including the most dangerous hazardous materials, in the safest, most secure manner possible.

The need for hazardous materials to support essential services means transportation of hazardous materials is unavoidable. However, these shipments frequently move through densely-

populated or environmentally-sensitive areas where the consequences of an incident could be loss of life, serious injury, property damage, and/or significant environmental damage.

The same characteristics of hazardous materials that cause concern in the event of an accidental release also make them attractive targets for terrorism or sabotage. Hazardous materials in transportation are frequently transported in substantial quantities and are potentially vulnerable to sabotage or misuse. Such materials are already mobile and are frequently transported in proximity to large population centers. Further, security of hazardous materials in the transportation environment poses unique challenges as compared to security at fixed facilities. Finally, hazardous materials in transportation often bear clear identifiers to ensure their safe and appropriate handling during transportation and to facilitate identification and effective emergency response in the event of an accident or release; these identifiers may also identify hazardous materials shipments as targets of opportunity for terrorists or other criminals.

A primary safety and security concern related to the rail transportation of hazardous materials is the prevention of catastrophic release or explosion in proximity to densely populated areas, including urban areas and events or venues with large numbers of people in attendance. Also of major concern is the release or explosion of rail cars in close proximity to iconic buildings, landmarks, or environmentally significant areas. Such a catastrophic event could be the result of an accident—such as the January 6, 2005 derailment and release of chlorine in Graniteville, South Carolina, which resulted in 9 fatalities and 554 injuries—or a deliberate act of terrorism. The causes of intentional and unintentional releases of hazardous material are very different; however, in either case, the potential consequences of both releases are significant. Indeed, the consequences of an intentional release of hazardous material by a criminal or terrorist action are likely to be more severe than the consequences of an unintentional release because an intentional action is designed to inflict the most damage possible.

DHS is the lead agency for transportation security and has shared responsibility with DOT for hazardous materials transportation security. DOT consults and coordinates on security-related hazardous materials transportation requirements to ensure they are consistent with DHS's overall security policy goals. Both departments

<sup>1</sup> This rulemaking was formerly designated as HM-232E; however, with the transition to a new government-wide regulations portal, docket number nomenclature has since changed. Some references to the old docket number are still present in this document.

work to ensure that the regulated industry is not confronted with inconsistent security guidance or requirements promulgated by the government.

The Federal Hazardous Materials Transportation Law (Federal Hazmat Law, 49 U.S.C. 5101 *et seq.*), authorizes the Secretary of the Department of Transportation to “prescribe regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce.” The Secretary has delegated this authority to the Pipeline and Hazardous Materials Safety Administration (PHMSA). The Hazardous Materials Regulations (HMR; 49 CFR parts 171–180), promulgated by PHMSA under the mandate in section 5103(b), govern safety aspects, including security, of the transportation of hazardous material. In accordance with its security authority, in March 2003, PHMSA adopted new transportation security requirements for offerors and transporters of certain classes and quantities of hazardous materials and new security training requirements for hazardous materials employees. 68 FR 14509 (March 25, 2003). These security regulations, which are explained in more detail below, require offerors and carriers to develop and implement security plans and to train their employees to recognize and respond to possible security threats.

When PHMSA adopted its security regulations, we stated that these regulations were “the first step in what may be a series of rulemakings to address the security of hazardous materials shipments.” 68 FR 14511. PHMSA also noted that the Transportation Security Administration (TSA) “is developing regulations that are likely to impose additional requirements beyond those established in this final rule,” and stated it would “consult and coordinate with TSA concerning security-related hazardous materials transportation regulations \* \* \*” *Id.*

Under Section 101(a) of the Aviation and Transportation Security Act (ATSA) (codified at 49 U.S.C. 114) and 49 CFR 1502.1, TSA has broad responsibility and authority for “security in all modes of transportation \* \* \*” ATSA authorizes TSA to take immediate action to protect transportation security (49 U.S.C. 114(d)(2)), and to:

- Develop policies, strategies and plans for dealing with threats to transportation (§ 114(f)(3));
- Assess intelligence and other information in order to identify individuals who pose a threat to transportation security (§ 114(f)(1));

- Coordinate countermeasures with other Federal agencies to address such threats (§ 114(f)(4));
- Enforce security-related regulations and requirements (§ 114(f)(7));
- Ensure the adequacy of security measures for the transportation of cargo (§ 114(f)(10));
- Oversee the implementation and ensure the adequacy of security measures at transportation facilities (§ 114(f)(11));
- Carry out other appropriate duties relating to transportation security (§ 114(f)(15)); and
- Serve as the primary liaison for transportation security to the intelligence and law enforcement communities (§ 114(f)(5)).

In sum, TSA’s authority with respect to transportation security is comprehensive and supported with specific powers related to the development and enforcement of regulations, security directives, security plans, and other requirements. Accordingly, under this authority, TSA may identify a security threat to any mode of transportation, develop a measure for dealing with that threat, and enforce compliance with that measure.

On August 7, 2006, PHMSA and TSA signed an annex to the September 28, 2004 DOT–DHS Memorandum of Understanding (MOU) on Roles and Responsibilities. The purpose of the annex is to delineate clear lines of authority and responsibility and promote communications, efficiency, and non-duplication of effort through cooperation and collaboration in the area of hazardous materials transportation security based on existing legal authorities and core competencies. Similarly, on September 28, 2006, the Federal Railroad Administration (FRA) and TSA signed an annex to address each agency’s roles and responsibilities for rail transportation security. The FRA–TSA annex provides that “DHS holds lead authority, primary responsibility and dedicated resources for security activities in all modes of transportation including rail.” Concerning safety, the FRA–TSA annex recognizes that FRA has authority over every area of railroad safety (including security) and that FRA enforces PHMSA’s hazardous materials regulations. The FRA–TSA annex includes procedures for coordinating: (1) Planning, inspection, training, and enforcement activities; (2) criticality and vulnerability assessments and security reviews; (3) communicating with affected stakeholders; and (4) use of personnel and resources. Copies of the

two annexes are available for review in the public docket for this rulemaking. In accordance with the principles outlined in the PHMSA–TSA and FRA–TSA annexes, PHMSA and FRA collaborated with TSA to develop this interim final rule.

## II. Current Hazardous Materials Transportation Safety and Security Requirements

### A. The Hazardous Materials Regulations

In accordance with § 172.704(a) of the HMR, all hazardous materials employees (hazmat employees) are required to fulfill the security awareness training, and employees responsible for developing and implementing security plans must also complete in-depth security training. Subpart I of Part 172 of the HMR requires persons who offer certain hazardous materials for transportation or transport certain hazardous materials in commerce to develop and implement security plans. A person is required to develop and implement a security plan if he or she transports any of the following materials in commerce:

(1) A highway route-controlled quantity of a Class 7 (radioactive) material, as defined at 49 CFR 173.403, in a motor vehicle, rail car, or freight container;

(2) More than 25 kg (55 pounds) of a Division 1.1, 1.2, or 1.3 (explosive) material in a motor vehicle, rail car, or freight container;

(3) More than one L (1.06 qt) per package of a material poisonous by inhalation, as defined at 49 CFR 171.8, that meets the criteria for Hazard Zone A, as specified in 49 CFR 173.116(a) or 173.133(a);

(4) A shipment of a quantity of hazardous materials in a bulk packaging having a capacity equal to, or greater than, 13,248 L (3,500 gallons) for liquids or gases or more than 13.24 cubic meters (468 cubic feet) for solids;

(5) A shipment in other than a bulk packaging of 2,268 kg (5,000 pounds) gross weight, or more, of one class of hazardous materials for which placarding of a vehicle, rail car, or freight container is required for that class under the provisions of subpart F of 49 CFR part 172;

(6) A select agent or toxin regulated by the Centers for Disease Control and Prevention under 42 CFR part 73; or

(7) A quantity of hazardous material that requires placarding under the provisions of subpart F of 49 CFR part 172.

Subpart I of part 172 sets forth general requirements for a security plan’s components rather than a prescriptive

list of specific items that must be included. The security plan must include an assessment of possible transportation security risks and appropriate measures to address the assessed risks. Specific measures implemented as part of the plan may vary according to the nature and level of threat at a particular time. At a minimum, the security plan must address personnel security, unauthorized access, and en route security. To address personnel security, the plan must include measures to confirm background information provided by job applicants for positions involving access to and handling of the hazardous materials covered by the plan. To address unauthorized access, the plan must include measures designed to limit or mitigate the risk of unauthorized persons gaining access to materials or transport conveyances being prepared for transportation. To address en route security, the plan must include measures to mitigate security risks during transportation, including the security of shipments stored temporarily en route to their destinations.

Under these standards, security plans can and should differ from one offeror or carrier to another. In each case, the plan should be based on the offeror's or carrier's individualized assessment of the security risks associated with the specific hazardous materials it ships or transports and its unique circumstances and operational environment.

The HMR also contain limited provisions intended to minimize delays in transportation. Pursuant to § 174.14 of the HMR, rail carriers are required to expedite the movement of hazardous materials shipments. Each shipment of hazardous materials must be forwarded "promptly and within 48 hours (Saturdays, Sundays, and holidays excluded)" after acceptance of the shipment by the rail carrier. If only biweekly or weekly service is performed, the carrier must forward a shipment of hazardous materials in the first available train. Additionally, carriers are prohibited from holding, subject to forwarding orders, tank cars loaded with Division 2.1 (flammable gas), Division 2.3 (poisonous gas) or Class 3 (flammable liquid) materials. The purpose of § 174.14 is to help ensure the prompt delivery of hazardous materials shipments and to minimize the time such materials spend in transportation, thus minimizing the exposure of hazmat shipments to accidents, derailments, unintended releases, or tampering.

#### *B. AAR Circular OT-55-I*

The rail industry, through the Association of American Railroads (AAR), has developed a detailed protocol on recommended railroad operating practices for the transportation of hazardous materials. These recommended practices were originally implemented by all of the Class 1 rail carriers operating in the United States; short-line railroads are also signatories to the most recent version of this document, known as Circular OT-55-I, issued by AAR on July 17, 2006. The Circular details railroad operating practices for: (1) Designating trains containing (i) five tank car loads or more of poison inhalation hazard (PIH) materials, (ii) 20 or more car loads or intermodal portable tank loads of a combination of PIH, flammable gas, Class 1.1 or 1.2 explosives, and environmentally-sensitive chemicals, or (iii) one or more car loads of spent nuclear fuel or high level radioactive waste as "key trains;" (2) designating operating speed and equipment restrictions for key trains; (3) designating "key routes" for key trains, and setting standards for track inspection and wayside defect detectors; (4) yard operating practices for handling placarded tank cars; (5) storage, loading, unloading and handling of tank cars; (6) assisting communities with emergency response training and information; (7) shipper notification procedures; and (8) the handling of time-sensitive materials.

Circular OT-55-I defines a "key route" as:

Any track with a combination of 10,000 car loads or intermodal portable tank loads of hazardous materials, or a combination of 4,000 car loadings of PIH (Hazard zone A, B, C, or D), anhydrous ammonia, flammable gas, Class 1.1 or 1.2 explosives, environmentally-sensitive chemicals, Spent Nuclear Fuel (SNF), and High Level Radioactive Waste (HLRW) over a period of one year.

Any route defined by a railroad as a key route should meet certain standards described in OT-55-I. Wayside defective wheel bearing detectors should be placed at a maximum of 40 miles apart, or an equivalent level of protection may be installed based on improvements in technology. Main track on key routes should be inspected by rail defect detection and track geometry inspection cars or by any equivalent level of inspection at least twice each year. Sidings on key routes should be inspected at least once a year, and main track and sidings should have periodic track inspections to identify cracks or breaks in joint bars. Further, any track used for meeting and passing key trains should be FRA Class 2 track or higher.

If a meet or pass must occur on less than Class 2 track due to an emergency, one of the trains should be stopped before the other train passes. This interim final rule in part reflects the recommended practices mentioned above, which are already in wide use across the rail industry.

#### **III. Notices of Proposed Rulemaking**

On December 21, 2006, PHMSA, in coordination with FRA and TSA, published a notice of proposed rulemaking (NPRM) under Docket HM-232E (71 FR 76834) proposing to revise the current requirements in the HMR applicable to the safe and secure transportation of hazardous materials by rail. Specifically, we proposed to require rail carriers to compile annual data on specified shipments of hazardous materials, use the data to analyze safety and security risks along rail routes where those materials are transported, assess alternative routing options, and make routing decisions based on those assessments. We also proposed clarifications of the current security plan requirements to address en route storage, delays in transit, delivery notification, and additional security inspection requirements for hazardous materials shipments.

Also on December 21, 2006, TSA published an NPRM proposing security regulations that would cover a broader spectrum of rail transportation, including passenger service. (71 FR 76852; see also TSA's Initial Regulatory Flexibility Analysis, 72 FR 7376 [Feb. 15, 2007].) The TSA proposal is intended to reduce security risks associated with certain hazardous materials shipments in designated High Threat Urban Areas (HTUAs) and to raise the overall security baseline for freight railroad shipments. (TSA has identified 46 geographic areas as HTUAs warranting special consideration based on population and risk assessment data. See 71 FR at 76861.) The TSA proposal applies to freight railroad carriers; intercity, commuter, and short-haul passenger trains; rail mass transit systems; and rail operations at certain fixed facilities that ship or receive PIH, explosive, or radioactive materials.

The hazardous materials provisions of the TSA proposal complement and build on the proposals in the PHMSA NPRM. Specifically, TSA proposed to require railroads to designate rail security coordinators to serve as primary contacts for receipt of intelligence information and to require reporting of significant security concerns, potential threats, and incidents. In addition, upon request

from TSA, rail carriers and certain facility operators would be required to report car locations and shipping information for shipments of PIH, explosive, and radioactive materials within one hour of the request. TSA also proposed enhanced chain-of-custody requirements for rail shipments of PIH, explosive, and radioactive materials in HTUAs to ensure that no car is left unattended as it is transferred from shipper to carrier, between carriers, or from carrier to consignee.

To obtain additional public input on our NPRM, PHMSA hosted meetings on February 1, 2007, in Washington, DC, and February 9, 2007, in Dallas, Texas. TSA also held a public meeting on its NPRM on February 2, 2007, in Arlington, Virginia. Thirty-five persons attended the Washington, DC public meeting, and 15 persons attended the Dallas meeting. Records of the public meetings, including attendance lists, transcripts, and a list of questions commenters were asked to address, are available for review in the public docket for this rulemaking.

#### IV. Implementing Recommendations of the 9/11 Commission Act of 2007

Several weeks after the close of the comment period in this proceeding, Congress enacted the Implementing Recommendations of the 9/11 Commission Act of 2007 (Pub. L. 110–53; 121 Stat. 266), which the President signed into law on August 3, 2007. Among other requirements, the Act directs the Secretary of Transportation, in consultation with the Secretary of Homeland Security, to publish a final rule based on PHMSA's December 21, 2006 NPRM by May 3, 2008. In accordance with Section 1551(e) of the Act, PHMSA's final rule must require rail carriers of "security-sensitive materials" to "select the safest and most secure route to be used in transporting" those materials, based on the rail carrier's analysis of the safety and security risks on primary and alternate transportation routes over which the carrier has authority to operate. Specifically, the HM–232E final rule must require such rail carriers to perform the following tasks each calendar year:

(1) Collect and compile security-sensitive commodity data, by route, line segment, or series of line segments, as aggregated by the rail carrier and identify the geographic location of the route and the total number of shipments by UN identification number;

(2) Identify practicable alternative routes over which the carrier has authority to operate as compared to the current route for such shipments;

(3) Seek relevant information from state, local, and tribal officials, as appropriate, regarding security risks to high-consequence targets along or in proximity to a route used by a rail carrier to transport security-sensitive materials;

(4) Consider the use of interchange agreements with other rail carriers when determining practicable alternative routes and the potential economic effects of using an alternative route;

(5) Analyze for both the primary route and each practicable alternative route the safety and security risks for the route, railroad facilities, railroad storage facilities, and high-consequence targets along or in proximity to the route; these analyses must be in writing and performed for each calendar year;

(6) Compare the safety and security risks on the primary and alternative routes, including the risk of a catastrophic release from a shipment traveling along these routes, and identify any remediation or mitigation measures implemented on the primary and alternative transportation routes; and

(7) Using the analysis described above, select the practicable route posing the least overall safety and security risk.

The rule must also require that a covered rail carrier, at least once every three years, analyze its route selection determinations, including a comprehensive, system-wide review of all operational changes, infrastructure modifications, traffic adjustments, changes in the nature of high-consequence targets located along or in proximity to the route, or other changes affecting the safety and security of the movements of security-sensitive materials that were implemented since the previous analysis was completed. Finally, the rule is to require that covered rail carriers retain in writing all route review and selection decision documentation and restrict the distribution, disclosure, and availability of this information to appropriate persons.

The 9/11 Commission Act defines "security-sensitive material" to mean the material or classes of materials that the Secretary of Homeland Security, in consultation with the Secretary of Transportation, determines through a rulemaking proceeding with opportunity for public comment pose a significant risk to national security while being transported in commerce.

As we explain further in later sections of this rule, PHMSA believes the interim final rule we are publishing today fulfills the requirements in § 1551 of the 9/11 Commission Act, in addition to

addressing the comments received in response to the NPRM. We believe that the changes and additions to the NPRM made in this IFR are well within the scope of the NPRM. We are publishing an interim final rule rather than a final rule to provide interested persons with an opportunity to provide specific comments on whether the IFR fully implements the requirements of the Act.

#### V. Comments on the NPRM

We received more than 50 sets of comments from individuals; members of Congress; Federal, state, and local governmental entities; companies; industry associations; public interest groups; labor organizations; and a homeowners' association. Generally, large rail carriers and their associations express support for the proposals in the NPRM and, in particular, the flexibility for rail carriers to designate routes based on an analysis of safety and security vulnerabilities and measures implemented to address those vulnerabilities. Small carriers and single line haulers express some concern about the applicability of the routing provisions to their operations—in many cases, smaller rail carriers operate on a single line and routing options are limited.

Commenters representing state and local governments and environmental groups generally oppose the proposals in the NPRM. Some of these commenters suggest that the Federal government should mandate specific routing for high-hazard materials rather than provide rail carriers the discretion to make routing decisions. Others, particularly state and local government commenters, want to be able to implement routing restrictions within their jurisdictions and, thus, urge us to modify or eliminate the preemptive effect of a final rule on non-Federal jurisdictions.

Nearly all the commenters suggest that we maintain consistency with TSA's proposed rail requirements in regard to package size, covered hazardous materials, and enforcement of the proposed requirements.

The comments and public meeting transcripts in the docket for this rulemaking may be reviewed at <http://www.regulations.gov> under docket number PHMSA–RSPA–2004–18730. For your convenience, a listing of the docket entries is provided below.

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#### Name/company

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Melanie Weintraub and Family.  
Kevin D. Kime.  
Institute of Makers of Explosives (IME).  
Tom Nitza.

Name/company
Anonymous.
U.S. Department of Energy, Naval Nuclear Propulsion Program (NNPP).
Congressman Dennis J. Kucinich.
Transcript—Washington, DC Public Meeting.
BASF Corporation.
District of Columbia.
Institute of Makers of Explosives (IME).
American Chemistry Council (ACC).
The Chlorine Institute, Inc.
The Fertilizer Institute, Inc. (TFI).
Metropolitan Transportation Authority.
The Dow Chemical Company (Dow).
Chairman and 3 members of the Committee on Homeland Security, U.S. House of Representatives.
The National Industrial Transportation League (NITL).
American Short Line and Regional Railroad Association.
Greenpeace.
Back Creek-II Homeowners Association, Inc.
Argonne National Laboratory Report.
Surface Transportation Board (STB).
Friends of the Earth.
Friends of the Earth.
Friends of the Earth.
Mayo Clinic.
Association of American Railroads (AAR).
City of Cleveland, Ohio.
BNSF Railway Company.
Transportation Trades Department, AFL-CIO.
Independent Lubricant Manufacturers Association.
City of Baltimore, Maryland.
Norfolk Southern Corporation.
Eureka County, Nevada, Office of Public Works.
National Association of Chemical Distributors.
Brotherhood of Locomotive Engineers and Trainmen.
DuPont.
Friends of the Earth.
State of New Jersey, Office of Homeland Security & Preparedness.
Transcript—Dallas Public Meeting.
Union Pacific Railroad Company.
The Dow Chemical Company, Olin Corporation, Norfolk Southern Corporation, Union Pacific Railroad Company, and Occidental Chemical Corporation.
Akzo Nobel Chemicals, Inc.
City of St. Louis, MO.
Nuclear Energy Institute.
National Association of SARA Title III Program Officials.
Colorado Emergency Planning Commission.
Jefferson County Local Emergency Planning Committee.
City of Las Vegas, Nevada.
Springfield Terminal Railway Company.
American Petroleum Institute.
CSX Transportation, Inc.
State of Connecticut, Attorney General.

- Rail carriers transporting certain explosives, PIH material, and radioactive materials must compile information and data on the commodities transported, including the routes over which these commodities are transported.

- Rail carriers transporting the specified hazardous materials must use the data they compile and relevant information from state, local, and tribal officials, as appropriate, regarding security risks to high-consequence targets along or in proximity to a route to analyze the safety and security risks for each route used and practicable alternative routes to the route used.

- Using these analyses, rail carriers must select the safest and most secure practicable route for the specified hazardous materials.

- In developing their security plans, rail carriers must specifically address the security risks associated with shipments delayed in transit or temporarily stored in transit.

- Rail carriers transporting the covered hazardous materials must notify consignees of any significant unplanned delays affecting the delivery of the hazardous material.

- Rail carriers must work with shippers and consignees to minimize the time a rail car containing one of the specified hazardous materials is placed on track awaiting pick-up, delivery, or transfer.

- Rail carriers must conduct security visual inspections at ground level of rail cars containing hazardous materials to check for signs of tampering or the introduction of an improvised explosive device (IED).

This interim final rule is effective June 1, 2008. Beginning January 1, 2009, rail carriers must compile information on the commodities they transport and the routes they use for the 6-month period from July 1, 2008 to December 31, 2008. Rail carriers must complete their data collection by March 1, 2009. By September 1, 2009, rail carriers must complete the safety and security analyses of routes currently utilized and available alternatives and select the safest, most secure routes for transporting the specified explosive, PIH, and radioactive materials. Beginning January 1, 2010, and for subsequent years, rail carriers must compile information on the commodities they transport and the routes used for the previous calendar year and complete route assessments and selections by the end of the calendar year.

In adopting these requirements, we reject the more prescriptive approaches urged by some commenters. We

continue to believe that rail carriers are in the best position to identify and assess risks across their systems and that en route safety and security measures will be most effective in reducing system risks when tailored to the carrier's specific circumstances and operations. This approach for determining the safest and most secure rail routes is consistent with the requirements in § 1551 of the 9/11 Commission Act. Rail carriers use alternative routing in the normal course of business to accommodate a variety of circumstances, such as derailments, accidents, damaged track, natural events, traffic bottlenecks, and heightened security necessitated by major events. In performing the route analysis required by the interim final rule, we expect a rail carrier to make an informed decision, balancing all relevant factors and the best information available.

Although individualized risk assessment necessarily is more challenging to perform and oversee, we believe this approach offers the greatest overall benefit. We expect the end result of the analyses to be a clear picture of the practicable alternative route(s) available to rail carriers for the transportation of the specified hazardous materials. As we transition to the new requirements, PHMSA and FRA are committed to working with the railroads to provide the tools and training necessary to conduct the required analyses and make appropriate route selections.

By the same token, we intend to aggressively oversee railroads' route analyses and route selection determinations and will use all available tools to enforce compliance with the rule. As the agency with primary responsibility for railroad safety enforcement, FRA will incorporate review and inspection of route analyses and selections into its inspection programs. FRA inspectors may offer suggestions for modifying or improving the analysis or make changes to a route if the route selection documentation or underlying analysis is found to be deficient. If an inspector's recommendations are not implemented, FRA may compel a rail carrier to make changes and/or assess a civil penalty. Further, if the carrier's chosen route is found not to be the safest and most secure practicable route available, FRA may require the use of an alternative route.

As we implement the interim final rule, PHMSA and FRA are committed to working with railroads, and with communities and first responders, to strengthen their capabilities and reduce

## VI. Summary of the Interim Final Rule

Based on comments received in response to the NPRM and the provisions of the 9/11 Commission Act, in this interim final rule, we are adopting the following revisions to the HMR:

the risks associated with hazardous materials transportation. As discussed below, we are developing a route assessment tool that rail carriers may use in weighing and considering the route analysis criteria.

PHMSA also is stepping up its efforts to build emergency response capabilities through national programs and community-based planning and training. We are sponsoring several initiatives intended to enhance community preparedness, including a project with the International Association of Fire Chiefs to provide real-time access to emergency response information and to share lessons learned from past incidents and exercises. With Congress' approval, we are expanding the Hazardous Materials Emergency Preparedness (HMEP) program, which provides funds for developing, improving, and implementing emergency response plans and for training public sector employees to respond to accidents and incidents involving hazardous materials. We believe these planning and training efforts are most effective when they are tailored to the particular risks facing a community.

We agree that local and regional governments require information on the types, quantities, and locations of hazardous materials transported through their jurisdictions to plan for effective and appropriate emergency response to incidents. We developed a detailed handbook (Guidance for Conducting Hazardous Materials Flow Surveys, January 1995) for local governments to use in conducting commodity flow studies of hazardous materials transported by highway, and we are encouraging states to use HMEP grant funds to study flow patterns of hazardous materials within and between states and to determine the need within a state for regional hazardous materials emergency response teams. We are updating our 1995 handbook through a cooperative research project aimed at producing a comprehensive, user-friendly resource that will help local planners develop commodity-flow data for all modes of transportation and to use the data to inform decision-making concerning risk assessment, emergency response preparedness, and resource allocation and to support analyses across jurisdictional boundaries. In addition, we are developing a guide for assessing emergency response needs and capabilities for hazardous materials releases to provide a tool for state and local governments to use to identify and address unmet emergency response planning and resource needs.

The specific provisions of the interim final rule, including a discussion of comments received on the NPRM and the provisions of the 9/11 Commission Act, are detailed in the following sections of this rule.

## VII. Discussion of Comments and Section-by-Section Review

### A. General (§ 172.820(a))

In the NPRM, we proposed to require rail carriers to implement enhanced safety and security measures for shipments of the following classes and quantities of hazardous materials:

(1) More than 2,268 kg (5,000 lbs) in a single carload of a Division 1.1, 1.2 or 1.3 explosive;

(2) A bulk quantity of a material poisonous by inhalation, as defined in § 171.8 of the HMR; or

(3) A highway route-controlled quantity of a Class 7 (radioactive) material, as defined in § 173.403 of the HMR.

The 9/11 Commission Act directs the Secretary of Transportation to ensure that this final rule requires railroad carriers to compile commodity data on the security-sensitive materials they transport. Section 1501 of the Act defines "security-sensitive material" to mean a material or group or class of materials, in a particular quantity and form that the Secretary of Homeland Security, in consultation with the Secretary of Transportation, determines through rulemaking with opportunity for public comment, poses a significant risk to national security while being transported in commerce. In making such a determination, the Secretary of Homeland Security is directed to consider: (1) Class 7 radioactive materials; (2) Division 1.1, 1.2, and 1.3 explosives; (3) materials poisonous or toxic by inhalation, including Division 2.3 gases and Division 6.1 materials; and (4) a select agent or toxin regulated by the Centers for Disease Control and Prevention (CDC) under 42 CFR part 73.

PHMSA, FRA, and TSA assessed the safety and security vulnerabilities associated with the transportation of different types and classes of hazardous materials. The list of materials to which the proposed enhanced safety and security requirements would apply is based on specific railroad transportation scenarios. These scenarios depict how hazardous materials could be deliberately used to cause significant casualties and property damage or accident scenarios resulting in similar catastrophic consequences. DOT and DHS determined that the materials specified in the NPRM present the greatest rail transportation safety and

security risks—because of the potential consequences of an unintentional release of these materials—and the most attractive targets for terrorists—because of the potential for these materials to be used as weapons of opportunity or weapons of mass destruction.

Following is a basic summary of the materials and critical vulnerabilities warranting enhanced safety and security measures:

- *Division 1.1, 1.2, and 1.3 explosive materials.* A Division 1.1 explosive is one presenting a mass explosive hazard. A mass explosion is one affecting almost the entire load simultaneously. A Division 1.2 explosive has a projection hazard, which means if the material were to explode, it would project fragments outward at some distance. A Division 1.3 explosive presents a fire hazard and either a minor blast hazard or a minor projection hazard or both. If compromised in transit by detonation or as a secondary explosion to an IED, these explosives could result in substantial damage to people, public and private property, and rail infrastructure. Roughly 2,500 carloads of these explosives are transported by rail each year.

- *PIH materials.* PIH materials are gases or liquids that are known, or presumed on the basis of tests, to be toxic to humans and to pose a hazard to health in the event of a release during transportation. PIH materials pose special risks during transportation because their uncontrolled release can endanger significant numbers of people. The January 6, 2005 train derailment in Graniteville, South Carolina with subsequent release of chlorine sadly underscored this risk. About 100,000 carloads of TIH chemicals are shipped by rail each year. Note that for purposes of the HMR, the terms "poison" and "toxic" are synonymous, as are the terms "poison inhalation hazard" or "PIH materials" and "toxic inhalation hazard" or "TIH materials."

- *Highway Route Controlled Quantity Radioactive Materials (HRCQ).* Shipments of HRCQ of radioactive materials are large quantities of radioactive materials requiring special controls during transportation. Because of the quantity included in a single packaging, HRCQ shipments pose significant safety and security risks. Very few HRCQ shipments are transported by rail. Spent nuclear fuel and high-level waste are shipped in containers certified under the Atomic Energy Act to meet stringent safety requirements designed to prevent release of radioactive materials even in the event of a severe accident.

The NPRM did not propose to include select agents or toxins regulated by the CDC under 42 CFR part 73 because railroads transport few, if any, shipments of these types of materials. Generally, shipments of infectious substances, including select agents and toxins, must be transported quickly from origin to destination to prevent degradation of samples that can occur over time and to ensure swift diagnosis and treatment of infectious diseases. For these reasons, highway (for short distances) and air (for longer distances) are the preferred modes of transport for these materials.

Most commenters agree that the above listed materials pose the most significant rail transportation safety and security risks. The Institute of Makers of Explosives (IME), Dow Chemical Company (Dow), Chlorine Institute, Inc., and Mr. Tom Nitza express some concern that the PHMSA and TSA rail security NPRMs are not consistent in terms of their application to shipments of PIH materials. The PHMSA NPRM applies to bulk quantities of PIH materials. A "bulk quantity" as used in the HMR means a quantity that exceeds 450 L (119 gallons) for liquids, a net mass greater than 400 kg (882 pounds) for solids, or a water capacity greater than 454 kg (1,000 pounds) as a receptacle for gas (49 CFR 171.8). Thus, the provisions of the PHMSA NPRM would apply to PIH shipments transported in tank cars, including residue amounts exceeding 119 gallons, and portable tanks and other bulk containers. The TSA NPRM applies to tank cars containing PIH materials, excluding residues. Commenters suggest that the two rules should be applied consistently and recommend that we adopt the TSA tank-car threshold and exclude residue shipments.

While we recognize that TSA used a risk-based approach in determining the PIH quantities to which its rail security NPRM would apply, we disagree from a safety perspective that bulk packages other than tank cars and residue shipments should be excepted from the route analysis and route selection requirements adopted in this interim final rule. Although target attractiveness from a security standpoint is diminished, significant safety risks persist. A typical tank car of chlorine, for example, will contain about 16,000 gallons when full and may contain a residue amount of 160–320 gallons (1–2 percent of the original amount in the tank). Upon release from its container or packaging, each cubic foot of liquid chlorine will rapidly expand to approximately 450 cubic feet of chlorine gas. Using this rough estimate for the

expansion of chlorine, a residue amount of 160–320 gallons would result in approximately 9,600 to 19,200 cubic feet of chlorine gas. Based on guidance in the DOT Emergency Response Guidebook, the residue amount remaining in a chlorine tank car, if spilled, would suggest an initial isolation distance ranging from 800 ft in all directions and a protective distance of at least 1.5 mi for persons downwind at night. From a safety standpoint, it makes sense to require bulk quantities of PIH residue remaining in tank cars to travel on the "best" route available—the route that considers factors such as population density, emergency response capabilities, environmentally-sensitive and significant areas, and event venues.

Adoption of the proposed TSA threshold for PIH shipments would also exclude rail shipments of most bulk packagings containing PIH materials from the route analysis and selection requirements in this interim final rule. Portable tanks, for example, typically contain up to 3,000 gallons, and some are designed to contain up to 6,000 gallons. While the isolation and evacuation distances for portable tanks would be the same as those for residue quantities in a tank car, the amount of gas produced would greatly increase. The amount of a PIH material contained in a fully loaded portable tank could, if released entirely, expand to produce roughly 180,000 to 361,000 cubic feet of gas, creating a safety risk to individuals within the area of the release. When considering risks posed by bulk containers such as portable tanks, different safety and security related aspects must be considered. Portable tanks are designed to be filled and emptied after removal from a transport conveyance; therefore, they have thinner walls and heads and are generally less robust, which makes them more prone to puncture or rupture than a tank car.

We believe the safety risks posed by the rail transportation of bulk quantities of PIH materials should be addressed through enhanced safety requirements, including route assessments. Therefore, in this interim final rule, we are requiring enhanced safety measures for bulk quantities of a material poisonous by inhalation, as proposed in the NPRM.

Written comments submitted by IME and AAR and statements by participants in the public meetings highlight the confusion as to whether we intended anhydrous ammonia to be included as a PIH material for which enhanced safety and security measures are required. The answer is yes. To ensure that this confusion does not persist, in this interim final rule, we are specifically

adding anhydrous ammonia as an example, in § 172.802(a), of a material that falls under the requirements to develop and implement additional safety and security planning requirements, as established by this interim final rule. Commenters are correct that, under the HMR, anhydrous ammonia is classified as a Division 2.2 compressed gas for domestic transportation. However, anhydrous ammonia meets the definition of a material that is poisonous by inhalation under § 171.8 of the HMR. That definition includes any material identified as an inhalation hazard by a special provision in column 7 of the § 172.101 Hazardous Materials Table (HMT). The entry for anhydrous ammonia in the HMT includes Special Provision 13, which requires the words "Inhalation Hazard" to be entered on shipping papers and marked on packages.

Once again, we note that for purposes of the HMR, the terms "poison" and "toxic" are synonymous, as are the terms "poison inhalation hazard" or "PIH materials" and "toxic inhalation hazard" or "TIH materials."

In the NPRM, we sought comments as to whether the proposed requirements should also apply to flammable gases, flammable liquids, or other materials that could be weaponized, as well as hazardous materials that could cause serious environmental damage if released into rivers or lakes. Commenters who addressed this issue state that rail shipments of Division 1.1, 1.2, and 1.3 explosives; PIH materials; and highway-route controlled quantities of radioactive materials pose significant rail safety and security risks warranting the enhanced security measures proposed in the NPRM and adopted in this interim final rule. Commenters generally do not support enhanced security measures for a broader list of materials than was proposed in the NPRM.

The City of Las Vegas, Nevada, supports expanding the list of materials for which enhanced security measures are required to include flammable liquids; flammable gases; certain oxidizers; certain organic peroxides; and 5,000 pounds or greater of pyrophoric materials. While DOT and DHS agree that these materials pose certain safety and security risks in rail transportation, the risks are not as great as those posed by the explosive, PIH, and radioactive materials specified in the NPRM, and we are not persuaded that they warrant the additional precautions required by the interim final rule. We note that the hazardous materials listed by the City of Las Vegas are currently subject to the



security plan requirements in Subpart I of Part 172 of the HMR. Thus, shippers and carriers of these materials must develop and implement security plans based on an assessment of the transportation security risks posed by the materials. Security plans must include measures to address personnel security, unauthorized access, and en route security. DOT, in consultation with DHS, will continue to evaluate the transportation safety and security risks posed by all types of hazardous materials and the effectiveness of our regulations in addressing those risks and will consider revising specific requirements as necessary.

For purposes of Section 1551 of the 9/11 Commission Act, DHS, in consultation with DOT, is developing a list of "security-sensitive materials" for rail transportation. DHS plans to publish its determination concerning "rail security-sensitive materials" in a forthcoming rulemaking. Upon publication of this determination, DOT will consider whether to revise the list of materials to which the safety and security requirements adopted in this IFR apply. We note in this regard that in future rulemaking actions DHS may also make determinations as to the materials that should be considered security-sensitive for other modes of transportation or for non-transportation operations and facilities.

#### *B. Commodity Data (§ 172.820(b))*

The NPRM proposed to require rail carriers to compile commodity data on an annual basis for the covered hazardous materials, including an identification of the routes utilized and the total number of shipments transported. The data are to be used by the rail carriers to identify the routes over which the specified hazardous materials are transported and the number of shipments utilizing each route. As proposed, rail carriers would be required to analyze the safety and security risks of the routes identified.

The City of Cleveland, Ohio, suggests that we revise the proposal in the NPRM to require rail carriers to share the commodity data with local governments responsible for the geographic areas through which hazardous materials are transported. We agree that state and local governments should have access to such information, provided access to the information is limited to those with a "need-to-know" for transportation safety and security purposes, and further provided that such information may not be publicly disclosed pursuant to any state, local, or tribal law. Because of the security sensitivity of the commodity data, it is not appropriate for

it to be broadly disclosed to government or private entities. We note that AAR Circular OT-55-I provides for disclosure of certain commodity flow data, upon request, to local emergency response agencies and planning groups. At a minimum, such information is to include rank-order identification of the top 25 hazardous commodities transported through the community.

Section 1551(h) of the 9/11 Commission Act requires rail carriers to seek relevant information from state, local, and tribal officials, as appropriate, regarding security risks to high-consequence targets along or in proximity to a route used to transport security sensitive materials. A "high consequence target" is defined in the Act to mean a property, natural resource, location, area, or other target designated by the Secretary of Homeland Security that is a viable target of national significance for which an attack by railroad could result in catastrophic loss of life, significant damage to national security or defense capabilities, or national economic harm. We are adopting this requirement in this interim final rule. More broadly, however, rail carriers should work with state and local governments when conducting the route safety and security analysis required by this interim final rule and in making routing decisions based on that analysis. To this end, rail carriers must share information as necessary and appropriate to enable state and local governments to provide meaningful input into the process. We note in this regard that among the factors to be considered by rail carriers in conducting the safety and security analysis are population density along the route; environmentally-sensitive or significant areas; venues along the route (stations, events, places of congregation); emergency response capability along the route; measures and countermeasures already in place to address apparent safety and security risks; proximity to iconic targets; and areas of high consequence along the route. State and local governments may well be able to assist rail carriers in identifying and assessing this type of information. Moreover, state and local government entities may also be able to assist rail carriers in addressing any safety or security vulnerabilities identified along selected routes, in the scheduling of public events, for example, or enhancing emergency response capabilities. If a rail carrier is unable to acquire relevant information from state, local, or tribal officials, then it must document that in its analysis.

We note as well that states and local governments may contact FRA to voice

concerns and request an inspection of a route plan, security vulnerability, or, more generally, a rail carrier.

To provide carriers with flexibility in compiling and assessing the data, we are not adopting a specified format; however, the data must be available in a format that can be read and understood by DOT personnel and that clearly identifies the physical locations of the carrier's route(s) and commodities transported over each route. Physical location may be identified by beginning and ending point, locality name, station name, track milepost, or other method devised by the rail carrier which specifies the geographic location. Carriers must retain the data for two years, in either hard copy or electronic form.

#### *C. Rail Transportation Route Analysis (§ 172.820(c))*

In the NPRM, PHMSA proposed to require rail carriers to use the data compilation described above to analyze the rail routes over which the specified materials are transported. As proposed, carriers would be required to analyze the specific safety and security risks for routes identified in the commodity data collection and the railroad facilities along those routes. The route analyses would be required to be in writing and to consider, at a minimum, a number of factors specific to each individual route. A non-inclusive list of those factors was included in proposed Appendix D to Subpart I of Part 172.

Several comments were submitted in response to the proposed requirement. In its comments, Dow suggests that "railroad facilities," as used in this section, should be defined as facilities at which storage incidental to movement occurs along the route, including, but not limited to, classification and switching yards, and non-private sidings. Dow suggests that we clarify that railroad facilities do not include an offeror's facility, private track, private siding, or the hazardous materials' final destination. We agree with Dow that the term "railroad facility" should be clearly defined in the HMR. Therefore, in this interim final rule, we are adopting Dow's suggested definition in § 172.820(c). For purposes of this section, "railroad facility" means railroad property including, but not limited to, storage facilities, classification and switching yards, and non-private sidings. The term does not include an offeror's facility, private track, private siding, or consignee's facility.

AAR suggests an exception from the analysis requirements if there have been no significant changes since the



previous analysis and less than five calendar years have passed since the previous analysis was performed. We will address this issue in more detail later in this rule. We would note that any significant changes to the route over which the covered hazardous materials are transported that occurs before the calendar year actually lapses trigger a revised route analysis.

AAR also suggests an exception from the route analysis requirements for rail carriers that transport fewer than 500 carloads of the covered hazardous materials. We do not agree. The safety and security risks posed by shipments of Division 1.1, 1.2, and 1.3 explosives, highway route controlled quantities of radioactive materials, and bulk quantities of PIH materials are significant even if a rail carrier only transports a single carload. The 2005 accident in Graniteville, South Carolina, resulted in the puncture of a single tank car of chlorine, but the consequences of that accident were devastating. While it is true that the calculation of safety and security risks for the rail transportation system as a whole increases as the total number of shipments increases, it is also true there is a risk associated with each carload transported. An exception from the route analysis requirements adopted in this interim final rule for rail carriers that transport the specified hazardous materials in amounts below a given threshold is not warranted given the safety and security risks posed by these materials.

The National Industrial Transportation League asserts that requiring a small railroad to analyze the safety and security risks of its only available route serves no purpose since such railroads have no alternative routes to assess. The commenter notes that small Class II and III railroads generally operate on a single track, usually a feeder track to main rail lines, and have no available alternate routes. We do not agree. Even in the absence of alternative routes, we believe an assessment of the safety and security risks along the route utilized is critical to enhancing rail transportation safety and security. A comparison of the route utilized with an alternate route is not required in this circumstance; however, rail carriers must address safety and security vulnerabilities identified by the route analysis.

Section 1551(c) of the 9/11 Commission Act requires rail carriers' safety and security analyses of the routes used to transport security sensitive materials to include the route, railroad facilities, railroad storage facilities, and high-consequence targets along or in proximity to the route. This

is consistent with the analysis requirements proposed in the NPRM and adopted in this interim final rule. We have modified the applicable sections of the interim final rule to clarify that rail carriers' safety and security analyses must cover the listed items.

As discussed in the NPRM, we gave careful consideration to the question of how to define a "rail transportation route" for the purpose of the analysis proposed in the NPRM. We proposed this very basic definition: a route is a series of one or more rail line segments, as selected by the rail carrier. Between the beginning and ending points of a rail carrier's possession and responsibility for a hazardous materials shipment, it would be up to the rail carrier to define the routes to be assessed. For example, a route could begin at the geographic point where a rail carrier takes physical possession of the hazardous material from the offeror or another carrier for transportation. A route could end at the geographic point where: (1) The rail carrier relinquishes possession of the hazardous material, either by delivering the commodity to its final destination or interchanging the shipment to another carrier; or (2) the carrier's operating authority ends. Hazardous materials shipments will likely have intermediary stops and transitions for example, a shipment may be held in a railroad yard, placed in a different train, or stored temporarily during transportation. Our aim is to have rail carriers analyze the territory and track over which these certain hazardous materials are regularly transported in the carrier's normal course of business, while providing flexibility concerning how specific routes will be defined and assessed. The final analysis, however, should provide a clear picture of the routes a rail carrier uses for the specified hazardous materials. Patterns and regular shipments should become obvious, as should non-routine hazardous materials movements, such as the one-time move of a specific shipment of military explosives or high-level nuclear waste.

#### *D. Alternative Route Analysis and Route Selection (§ 172.820(d) & (e))*

In addition to the routes normally and regularly used for hazardous materials movements, we proposed to require carriers to analyze and assess the feasibility of available alternative routes over which they have authority to operate. As proposed in the NPRM, for each primary route, one commercially practicable alternative route must be identified and analyzed using, at a minimum, the Rail Risk Analysis

Factors of proposed Appendix D to Part 172. It is the rail carrier's responsibility to retain a copy (or an electronic image thereof) of all route review and selection decision documentation used when selecting the practical route posing the least overall safety and security risk. This documentation should include, but is not limited to, comparative analyses, charts, graphics, or rail system maps. The NPRM noted that a primary safety and security concern for the rulemaking was the prevention of a catastrophic release or explosion in proximity to densely populated areas, including urban areas and events or venues with large numbers of people in attendance. The goal of the routing analysis requirement is to ensure that each route used for the transportation of the specified hazardous materials is the one presenting the fewest overall safety and security risks.

Consistent with § 1551(d) of the 9/11 Commission Act, this interim final rule requires rail carriers to identify practicable alternative routes over which the carrier has authority to operate and perform a safety and security analysis of the alternative routes for comparison to the currently used route, including the risk of a catastrophic release from a shipment traveling each route. In this interim final rule, we are adopting a requirement for rail carriers to identify and analyze all practicable alternative routes, rather than a "commercially practicable" route as proposed in the NPRM. We note in this regard, however, that the identification of an alternative practicable route must necessarily include a determination of its commercial practicability. Congress recognized this by including in § 1551(d) a requirement for the alternative route analyses to include the potential economic effects of using an alternative route. Accordingly, we expect rail carriers to address whether a route is economically viable in light of, but not limited to, market conditions, legal and regulatory requirements, and the economics of the commodity, route, offeror, and consignee. A practicable alternative route is one that may be utilized by the railroad within the limits of the railroad's particular operating constraints and, further, is economically viable given the economics of the commodity, route, and customer relationship. The question of commercial practicability must be reasonably evaluated by each rail carrier as a part of its analysis based on the specific circumstances of the route and proposed traffic. If using a possible alternative route would significantly

increase a carrier's operating costs, as well as the costs to its customers, the carrier should consider and document these facts in its route analysis. We expect that carriers will make these decisions in good faith, using the financial management principles generally applied to other business decisions affecting safety and security.

As we acknowledged in the NPRM, in many cases, the only alternative route in a particular area may be on another carrier's system. A rail carrier would not be obligated to analyze an alternative route over which it has no authority to operate. Likewise, in some cases, no alternative route will be available; in those instances, no alternative route analysis would be required. This is particularly true in the case of regional or short-line railroads that are often the only rail carriers in a given geographic area. However, as discussed below, carriers must consider the use of interchange agreements when identifying practicable alternative routes.

When an alternative route is available, the carrier must analyze that route and document its analysis, including the safety and security risks presented by the alternative route, any remediation or mitigation measures in place or available, and the economic effects of using the alternative route.

Under arrangements known as "trackage rights," it is not uncommon for a carrier to conduct train operations over a rail line that is owned, dispatched, and maintained by another carrier. Such arrangements typically grant the trackage rights tenant little or no control over the track and associated infrastructure, including many of the factors set forth in Appendix D. In completing the route analysis required by this interim final rule, a carrier may identify specific risk mitigation measures that are outside its ability to accomplish. Because it is essential that safety and security measures be coordinated among all responsible entities, it is incumbent upon the tenant carrier to work with the owner of the track to evaluate the vulnerabilities and identify measures to mitigate the risks. If measures required by this interim final rule cannot be implemented because another entity refuses or fails to cooperate, the carrier must notify FRA. As stated in the Compliance and Enforcement section of this interim final rule, FRA retains the authority to require use of an alternative route until such time as identified deficiencies are mitigated or corrected. In today's edition of the **Federal Register**, FRA is issuing an NPRM setting forth the

enforcement procedures it will use in requiring the use of an alternative route.

On behalf of Friends of the Earth, Fred Millar submitted four sets of comments and spoke at the DC public meeting. In his verbal and written comments, Mr. Millar states that many citizens, local governments, and rail workers are seeking a protective rerouting of the most dangerous hazardous materials cargoes (e.g., TIH or poison gas cargoes) around HTUAs. Mr. Millar suggests that rerouting of through shipments around HTUAs would yield a significant, immediately achievable, and permanent risk reduction.

Greenpeace suggests that we promulgate new regulations that prohibit the storage and routing of TIH rail cargo through densely populated and other sensitive areas wherever technically feasible. Greenpeace states: "If the federal government is concerned about differing local statutes, they should support national routing legislation." Friends of the Earth similarly acknowledges that "nobody thinks it's a good idea to have 46 high-threat target areas with their own local regulations. What we need is a sensible national protective rerouting regulation \* \* \*

In their comments, both Mr. Millar and Greenpeace express support for the use of interchange agreements by rail carriers to swap cargo between different rail carriers and avoid HTUAs. In addition, § 1551(d) of the 9/11 Commission Act requires rail carriers, when determining practicable alternative routes, to consider the use of interchange agreements with other carriers. We encourage rail carriers to take all feasible actions to mitigate the safety and security risks for hazardous materials shipments; therefore, in this interim final rule, we are adopting the requirement in § 1551(d) for rail carriers to consider interchange agreements when identifying practicable alternative routes.

In a separate effort to address these concerns, in late 2005, FRA granted a request by the AAR and the American Chemistry Council (ACC) to convene a conference under the authority of 49 U.S.C. 333, which affords limited antitrust protection to rail carriers. Section 333 authorizes the FRA Administrator, as delegate of the Secretary of Transportation, to convene conferences at the request of one or more railroads to address coordination of operations and facilities of rail carriers in order to achieve a more efficient, economical, and viable rail system. Persons attending a section 333 conference are immune from antitrust

liability for any discussions at the conference, and can also receive immunity for any resulting agreements that receive FRA approval. The purpose of the "Section 333 Conference" is to discuss ways to minimize security and safety risks flowing from the transportation by rail of TIH materials. FRA, PHMSA, and representatives from the Department of Justice (DOJ), the Federal Trade Commission (FTC), TSA, and the Surface Transportation Board (STB) are participating in these discussions. The initial efforts of the conference are focused on the rail transportation of chlorine and anhydrous ammonia, because those chemicals represent over 80 percent of all TIH rail shipments. FRA has met with the rail carriers to discuss modeling and routing options, and has held separate meetings with rail shippers of chlorine and anhydrous ammonia. Further meetings with the rail carriers are anticipated. Projects agreed to through the conference may need the approval of the STB in order to be implemented.

In light of these efforts, and in the interests of system safety, we will not ban movement of the specified hazardous materials through densely populated or other sensitive areas. Rerouting of hazardous materials shipments over longer, more circuitous alternative routes, most of which traverse urban areas at some point, could actually increase safety and security risks. Rerouting to avoid certain areas could add hundreds of miles and several days to a hazardous materials shipment. Those additional miles and days could be on rail infrastructure less suitable to handling hazardous materials. Such rerouting could also result in additional switching and handling of rail cars and more time in rail yards. Longer distances and transit times, increased car handling, and more time in rail yards contribute to an increase in the safety risks to railroad workers and the public inherent in rail transportation in general and the transportation of hazardous materials. As well, military installations, power plants, and other potentially attractive terrorist targets are purposely located on or near rail lines rather than in major metropolitan areas. Such facilities could be placed at greater risk if the Federal government were to require rerouting of highly hazardous materials to avoid densely populated areas. Finally, we would suggest that transportation security is enhanced if terrorists cannot determine whether or when hazardous materials may be rerouted. Such flexibility, provided its use is not made

public, decreases the likelihood that a target will be where a terrorist may expect it to be.

Moreover, the 9/11 Commission Act does not direct the Federal government to mandate specific rail routes for security-sensitive materials; rather, § 1551 of the Act specifically directs the Secretary of Transportation to ensure that the final rule requires *rail carriers* to select the safest and most secure route to be used to transport security-sensitive materials based on a safety and security assessment of the current routes utilized and practicable alternative routes.

We continue to believe that en route safety and security measures will be most effective when tailored to a railroad's specific circumstances and operations. Rail carriers are in the best position to assess security risks along the full length of the routes available to them and to target enhanced safety and security measures to identified vulnerabilities. Appendix D to the rule lists the wide variety of factors that a carrier must consider in choosing the safest and most secure route. The interim final rule requires carriers to analyze the primary route and a practicable alternative route using the Rail Risk Analysis Factors in Appendix D and select the route posing the least overall safety and security risk. As discussed below, carriers are also required to address delays in transit and en route storage security measures in their security plans.

As with the primary route analysis, we expect the end result of the alternative route analysis to be a clear picture of the practicable alternative route(s) available to rail carriers for the transportation of the specified hazardous materials. Alternative routing is used in the normal course of business throughout the railroad industry in order to accommodate circumstances such as derailments, accidents, damaged track, natural events (mudslides, floods), traffic bottlenecks, and heightened security due to major national events. The rail carriers' analysis of the alternative routes should, in the end, clearly indicate the reasonableness, appropriateness, and feasibility, including economic feasibility, of using the alternative routes. We expect a complete alternative route analysis will reflect such considerations as any actual use of the alternative route; safety and security benefits and risks of the alternative route; and commercial or economic costs and benefits of the route. Clearly, if an alternative route, after analysis, is determined to be the safest and most secure practicable route, the carrier

would either designate it as the primary route or identify and implement mitigating measures to improve the safety and security of the analyzed primary route. Each carrier will be required to use the practicable route posing the least overall safety and security risk, based on its analysis.

We recognize there may not be one single route that affords both the fewest safety and security risks. The most important part of this process is the route analysis itself and the identification of the safety and security risks on each route. The carrier may then make an informed decision, balancing all relevant factors and the best information available, regarding which route to use. For example, if a rail carrier determines one particular route is the safest and most practicable, but has a particular security risk, the carrier should then implement specific security measures so that the route will pose the least overall safety and security risk. We also recognize some security risks or threats may be long-term, while others are short-term, such as those arising from holding a major national event (e.g., national political party conventions) in close proximity to the rail route. Mitigation measures could be put in place for the duration of the event; after the event is over, normal operations could resume. Again, we expect many of the railroads already have experience in addressing safety and security issues such as these and have already catalogued possible actions to mitigate such risks.

In the evaluation of alternative routes, rail carriers may also indicate certain conditions under which alternative routes will be used. In the case of a short-term safety or security risk, such as a temporary event at a venue along the route, or a derailment, carriers may specify an alternative route and the measures to be put in place for use of that alternative route.

Dow suggests that, consistent with the proposed rule's performance standard, a rail carrier should not be required to implement remediation and mitigation measures to address vulnerabilities identified during the performance of the safety and security risk analysis if: (1) An alternative route analysis reveals a practicable route posing the least overall safety and security risk; and (2) the carrier selects that route in accordance with § 172.820(e). We agree with the commenter, but note that the requirement to implement remediation and mitigation measures proposed in the NPRM and adopted in this interim final rule applies in situations where a rail carrier selects a route that does not pose the least overall safety and security

risks, based on the alternative routing analysis. In such a situation, the carrier must address the safety and security risks along the selected route through implementation of remediation and mitigation measures. Current security plan requirements apply in assessing risks and implementing measures to mitigate risks on existing routes. Nothing in this interim final rule requires remediation and mitigation measures to address vulnerabilities on a route that the carrier has not selected.

To assist rail carriers in performing these analyses of rail transportation routes and alternative routes, PHMSA is adopting a new Appendix D to Subpart 172. This appendix lays out the minimum criteria a rail carrier must consider in analyzing each route and alternative route. The criteria listed are those we believe are most relevant in analyzing the rail routes for the hazardous materials covered by this interim final rule. Of course, not all the criteria will be present on each route, and each route will have its own combination of factors to be considered. Again, our aim is to enable rail carriers to tailor these analyses to the particular risks and factors of their operations, and to get a clear picture of the characteristics of each route.

For the initial route analysis, we anticipate rail carriers will review the prior two-year period when considering the criteria contained in Appendix D. In subsequent years, the scope of the analyses should focus on changes from the initial analyses. For example, using the criteria in Appendix D, carriers should analyze the impact of changes in areas of high consequence along the route, traffic density, new customers offering or receiving the specified hazardous materials, and significant operational changes, to name a few of the considerations listed in Appendix D.

We recognize the need for flexibility in performing risk assessments; yet we must balance it against the need for some degree of uniformity in the assessments. We have tried to balance these interests by prescribing uniform assessment criteria, while allowing each rail carrier to choose the assessment methodology it will follow. Regardless of the risk assessment methodology selected, a rail carrier should apply certain common principles. These include the following:

- The analysis should employ the best reasonable, obtainable information from the natural, physical, and social sciences to assess risks to health, safety, and the environment;
- Characterizations of risks and of changes in the nature or magnitude of risks should be both qualitative and, to

the extent possible given available data, quantitative;

- Characterizations of risk should be broad enough to deduce a range of activities to reduce risks;
- Statements of assumptions, their rationale, and their impact on the risk analysis should be explicit;
- The analysis should consider the full population at risk, as well as subpopulations particularly susceptible to such risks and/or more highly exposed; and
- The analysis should adopt consistent approaches to evaluating the risks posed by hazardous agents or events.

We believe institutionalizing a practical assessment program is important to supporting business activities and provides several benefits. First, and perhaps most importantly, assessment programs help ensure identification, on a continuing basis, of the movement of materials presenting the greatest risk to the public and the business community. Second, risk assessments help personnel throughout the organization better understand where to best apply limited resources to minimize risks. Further, risk assessments provide a mechanism for reaching a consensus on which risks are the greatest and what steps are appropriate for mitigating them. Finally, a formal risk assessment program provides an efficient means for communicating assessment findings and recommended actions to business unit managers as well as to senior corporate officials. The periodic nature of the assessments provides organizations a means of readily understanding reported information and comparing results over time.

The route analysis described above must identify safety and security vulnerabilities along the route to be utilized. Each rail carrier's security plan must include measures to minimize the safety and security vulnerabilities identified through the route analyses. With respect to mitigation measures and cost, there are many measures rail carriers can take without necessarily adding to the cost of compliance. For example, carriers can work to notify local law enforcement and emergency responders of the types and approximate amounts of particular commodities typically transported through communities. Further, location changes can be made as to where rail cars containing highly hazardous materials are stored in transit. As with the current security plan requirements, our goal is to permit rail carriers the flexibility to identify potential safety and security vulnerabilities and

measures to address them, including the determination of which of a carrier's routes present the overall fewest safety and security risks.

We anticipate several possible route selection outcomes:

- The existing route presents the lowest overall safety and security risk and continues to be the selected route.
- The alternative route presents the lowest overall safety and security risks. The alternative will be selected, and transportation of the identified materials on the alternative route will begin as expeditiously as possible.
- The existing or the alternative route presents the lowest overall safety and security risk except under specific identified conditions. The lowest overall safety and security risk route will be used dependent upon the conditions. The conditions warranting route change must be clearly identified in the analyses and routing decision documentation.
- Based on the analyses, either the existing or alternative practicable route is identified as presenting the lowest overall safety and security risks; however, the rail carrier identifies measures to mitigate some of the risk and lower the overall risk of the other route. The route with the lowest overall safety and security risk should be selected and used. In documenting the route selection, the carrier should identify remediation measures to be implemented with a schedule of their implementation and the route change upon completion.

Clearly, other outcomes are possible. The analyses must be completed and any routing changes resulting from the analyses must be implemented no later than January 1 of the following year.

#### *E. Completion of Route Analyses (§ 172.820(f))*

In the NPRM, we proposed to require rail carriers to conduct the rail transportation route analysis, alternative route analysis, and route selection by the end of the year to which it applies. In addition, we proposed to require the carrier to complete a comprehensive review of all operational changes, infrastructure modifications, traffic adjustments, or other changes implemented over a period not to exceed five calendar years.

Most comments addressing this aspect of the NPRM request that we eliminate confusion and shorten the five-year time period for the system wide review. One commenter, AAR, suggests that we make the one year review encompass the entire system or better clarify what is meant by the separate reviews. AAR further suggests that carriers should be

required to revise and update route analyses only when necessary to account for changes in the way a carrier operates, changes to the routes utilized, or in response to specific threats. In addition, AAR suggests an exception from the analysis requirements if there have been no significant changes since the previous analysis and fewer than five calendar years have passed since the previous analysis was performed.

The Brotherhood of Locomotive Engineers and Trainmen suggests that the frequencies set forth in the proposed rule are appropriate, except that the comprehensive review should be performed every three (3) years.

The 9/11 Commission Act prescribes both the nature and frequency of the analysis. Under § 1551(g) of the Act, we must require rail carriers to perform a comprehensive review at least once every three years. The analysis is to include a system-wide review of all operational changes, infrastructure modifications, traffic adjustments, changes in the nature of high-consequence targets located along or in proximity to the route, and any other changes affecting the safety and security of the movement of security-sensitive materials that were implemented since the previous analysis was completed.

We accept the comments that our proposed schedule for one- and five-year reviews is unnecessarily confusing and complicated and that the proposed five-year time frame for system-wide reviews is too long. Therefore, in this interim final rule, we are requiring rail carriers to conduct all the required analyses every year—that is, each year, a rail carrier must assess the safety and security vulnerabilities along the routes it uses to transport the specified hazardous materials and must also assess the safety and security vulnerabilities of practicable alternative routes for each route currently utilized. This analysis must include a comprehensive review of all operational changes, infrastructure modifications, traffic adjustments, changes in the nature of high-consequence targets located along or in proximity to the route, or other changes affecting the safety and security of the movement of the materials covered by this interim final rule. This process will ensure that modifications and changes to the entire system are taken into account in the route analyses during the same calendar year that they occur. In addition, a rail carrier should consider changes that may reasonably be anticipated to occur in the upcoming year, such as changes to the volumes or types of hazardous materials transported or changes affecting rail infrastructure (e.g.,

planned maintenance that could result in temporary closures of bridges or track segments).

We do not agree with AAR that a carrier should be required to review and revise its route analysis only when necessary to account for changes in the way a carrier operates, changes to the routes utilized, or in response to specific threats. We believe there is value in conducting an annual review of the route analysis even in the absence of changes to the way a carrier operates. Conditions along the selected routes may have changed, for example, or there may be changes affecting other factors utilized in the analyses, such as incidents on the selected route, the capabilities of local emergency response agencies, or venues located in proximity to the selected route.

*F. Storage, Delays in Transit, and Notification (§ 172.820(g))*

In the NPRM, we proposed to require rail carriers to specifically address delays in transit and en route storage in security plans. Thus, we proposed to require rail carrier security plans to include: (1) A procedure for consulting with offerors and consignees to minimize the time a material is stored incidental to movement; (2) a procedure for informing the operator of the facility at which the material will be stored incidental to movement that the material has been delivered; (3) measures to limit access to the materials during storage and delays in transit; (4) measures to mitigate risk to population centers during storage incidental to transportation; (5) measures to be taken in the event of an escalating threat level during storage incidental to transportation; (6) a procedure for notifying the consignee in the event of transportation delays; and (7) a procedure to inform the consignee that the material has been delivered.

Concerning consultations to minimize delays in transit, ACC requests that we require rail carriers to formally consult with offerors and consignees, to minimize to the extent practicable, the period of time during which the material is stored incidental to movement. ACC suggests that the consultations should provide offerors, consignees, and rail carriers equal weight in developing practicable solutions, which consider, but are not limited to, railroad and shipper/consignee production capacity, land availability, restrictive local ordinances, and other relevant factors. ACC further suggests that these consultations should be conducted on an individual basis, where regional distinctions in security requirements and the aforementioned

constraints may be given full consideration and that proposed solutions should be implemented with mutual consent of all parties. Finally, ACC recommends that, in those instances when mutual consent is not achieved, proposed solutions should be implemented through binding mediation conducted by the Surface Transportation Board's (STB's) Office of Compliance and Consumer Assistance.

We agree with the suggestion made by ACC that any decision made to minimize the time that a material is stored incidental to movement should include mutual consent from all parties and that those parties should be given equal weight. Therefore, in this interim final rule, we are modifying the proposal by incorporating ACC's suggestion that decisions be implemented with the mutual consent of all parties. We are not including the provision to require consultation with STB in the absence of an agreement among the parties. Such a provision would be overly burdensome; moreover, rail carriers, offerors, and consignees should be capable of coming to an agreement without the necessity for mediation. In the absence of such an agreement, a rail carrier may implement whatever measures it finds necessary to minimize the time that a material is stored incidental to movement.

In the NPRM, we proposed to require a rail carrier to notify the consignee if there is a significant unplanned delay during transportation of one of the specified hazardous materials, within 48 hours of identifying the significant delay, and provide a revised delivery schedule. Our goal is to strengthen the requirements of the current "48-hour rule" contained in § 174.14, and to delegate more positive control and responsibility to the railroads for tracking and controlling the movement of railcars carrying hazardous materials. Such notification will also facilitate communication between the carrier in possession of the material and the consignee to ensure the hazardous materials do not inadvertently wait in transit.

In the NPRM, we specified such notification must be made by a method acceptable to both carrier and consignee. One commenter, AAR, states that consignees should not have veto power over the method selected for notification of delays and is concerned because different customers will likely request different notification systems, potentially increasing transportation costs. On the other hand, The Chlorine Institute indicates that it strongly supports the notification provisions that require carriers to work with receivers

and shippers on an appropriate notification method.

We do not believe that the notification issue is as complicated as AAR suggests. We are aware that many rail carriers have in place electronic systems through which consignees may look up and track their expected rail shipments. This is an acceptable method of notification, as are e-mail, facsimile, or telephone. None of these methods would result in significant cost impacts for rail carriers. Because most railroads already have in place systems to monitor the transportation of certain types of shipments, and procedures for notification of consignees, we do not anticipate this requirement will involve major operational changes for any of the affected carriers. The reason the carrier and consignee must agree on a notification method is to ensure that the information about a shipment delay reaches the consignee in a timely fashion. Absent such an agreement, the carrier cannot be certain that the notification will reach the appropriate official for the consignee.

*A significant delay is one that:* (1) Compromises the safety or security of the hazardous material shipped; or (2) delays the shipment beyond its normal expected or planned shipping time. A "significant delay" must be determined on a case-by-case and hazmat-by-hazmat basis. As a general rule, any delay beyond the normal or expected shipping time for the material qualifies as a "significant delay."

The AAR Circular OT-55-I outlines operating practices the rail industry has already implemented for certain time-sensitive shipments. The notification requirement adopted in this interim final rule simply builds on those practices. In particular, the Circular addresses time-sensitive shipments and specifies railroads are to be responsible for monitoring of shipments of such products and communicating with affected parties when the shipment may not reach its destination within the specified timeframe. Circular OT-55-I recommends delivery of time-sensitive materials should take place within 20 or 30 days, depending on the commodity.<sup>2</sup> Because of the variety of materials covered by this interim final rule, PHMSA has not designated specific delivery timeframe guidelines for these materials.

In the NPRM, we proposed to require carriers to notify storage facilities and consignees upon delivery of a rail car

<sup>2</sup> The additional commodities listed in Circular OT-55-I and requiring a delivery time of 30 days are styrene monomer, stabilized and flammable liquid, n.o.s. (recycled styrene).

containing one of the specified hazardous materials. IME, Akzo Nobel Chemicals, and ACC suggest we delete the delivery notification requirements and, instead, align the HMR with the positive chain-of-custody requirements proposed by TSA in its rail security NPRM. We agree. The TSA requirements establish positive control of rail cars containing the specified hazardous materials by requiring direct hand-off of each car to a responsible individual, at points of: (1) Carrier interchange in an HTUA or outside an HTUA for cars that may enter an HTUA; (2) origin; and (3) delivery to a facility in a HTUA. There is, therefore, no need for the notification requirements we proposed in the NPRM. Accordingly, we are not adopting them in this interim final rule.

#### *G. Recordkeeping (§ 172.820(h))*

In the NPRM, we proposed to require each rail carrier to maintain an accessible copy of the information and analyses associated with the collection of commodity data and route assessment and selection processes. We further proposed to require the distribution of such information to be limited to covered persons with a need-to-know, in accordance with Sensitive Security Information (SSI) regulations in 49 CFR Parts 15 and 1520. The recordkeeping requirements are consistent with the 9/11 Commission Act.

No comments were submitted in response to this paragraph; therefore, we are adopting it as proposed.

#### *H. Compliance and Enforcement (§ 172.820(i))*

FRA is the agency within DOT responsible for railroad safety and is the primary enforcer of safety and security requirements in the HMR pertaining to rail shippers and carriers. FRA inspectors routinely review security plans during site visits and may offer suggestions for improving security plans, as appropriate. If an inspector's recommendations are not implemented, FRA may compel a rail shipper or carrier to make changes to its security plan through its normal enforcement process. FRA consults with TSA concerning railroad security issues in accordance with the FRA-TSA annex to the DOT-DHS MOU on transportation security.

In the NPRM, we proposed to require carriers to revise their analyses or make changes to a route if the route selection documentation or underlying analyses are found to be deficient. In addition, we proposed that, are the carrier's chosen route is found not to be the safest and most secure practicable route

available, the FRA Associate Administrator for Safety, in consultation with TSA, could require the use of an alternative route until such time as identified deficiencies are satisfactorily addressed.

AAR questions whether PHMSA has the statutory authority to grant FRA the power to require the use of an alternative route. FRA's authority to require the use of an alternative route stems from § 5121(a) of the Federal hazardous materials transportation law. The Secretary of Transportation is authorized to issue an order, after notice and an opportunity for a hearing, requiring compliance with the Federal Hazmat Law or a regulation, order, special permit, or approval issued under Federal Hazmat Law. The authority provided in 49 U.S.C. 5121(a) has been delegated to FRA, "with particular emphasis on the transportation or shipment of hazardous materials by railroad" (49 CFR 1.49(s)) as well as to FAA, FMCSA, PHMSA, and USCG (with "particular emphasis" on the respective authority of these agencies).

Dow and IME suggest that, consistent with fundamental concepts of due process, PHMSA should provide an immediate procedure to appeal an FRA determination to require the use of an alternative route. STB suggests that the regulation indicate that prior to making a determination to require the use of an alternative route, FRA and TSA will obtain the comments of STB regarding whether the contemplated alternative route(s) would be economically practicable. In addition, Dow requests that PHMSA clarify the role that TSA or other agencies will play in performing inspections under this rule, including addressing whether TSA will use third-party contractors to perform inspections.

In the preamble to the NPRM, we indicated that FRA would develop procedures for rail carriers to appeal a decision by the FRA Associate Administrator for Safety to require the use of an alternative route, including information a rail carrier should include in its appeal, the time frame for filing an appeal, and the process to be utilized by FRA in considering the appeal, including any consultations with TSA or PHMSA. FRA is developing such procedures and is publishing a notice of proposed rulemaking concurrently with this interim final rule. We note in this regard that FRA will only require an alternate route if it concludes the carrier's analysis did not satisfy the minimum criteria for performing a safety and security risk analysis, as established by the proposed § 172.820 and Appendix D to Part 172. Moreover,

FRA expects to mandate route changes only in exigent circumstances or where a carrier has acted in clear defiance of the requirements.

We agree with STB's suggestion that FRA and TSA should consult with STB prior to making a determination to compel the use of an alternative route. In this interim final rule, we are adding language to this effect in the appropriate paragraph. STB's participation in this process will ensure that the FRA-TSA determinations concerning alternative routes fully consider the economic impacts and commercial practicability of the routes under consideration.

As we explained in the preamble to the NPRM, with respect to enforcement of the security requirements in this interim final rule, FRA plans to work closely with TSA to develop a coordinated enforcement strategy to include both FRA and TSA inspection personnel. We note in this regard that TSA does not have the authority to enforce safety or security requirements established in the HMR. If in the course of an inspection of a railroad carrier or a rail hazardous material shipper, TSA identifies evidence of non-compliance with a DOT security regulation, TSA will provide the information to FRA and PHMSA for appropriate action. TSA will not directly enforce DOT security rules and will not initiate safety inspections. In accordance with the PHMSA-TSA and FRA-TSA annexes to the DOT-DHS MOU, all the involved agencies will cooperate to ensure coordinated, consistent, and effective activities related to rail security issues. To address Dow's concern, in this interim final rule we have included a clear statement that FRA, in cooperation with PHMSA, will enforce the requirements contained in this interim final rule.

We are not implementing a submission and approval process for security plans and route analyses. The review and approval of hundreds of security plans and analyses would be extremely resource-intensive and time-consuming. Moreover, the 9/11 Commission Act does not provide for an approval process for route selections made by rail carriers. During FRA's normal inspection process, inspectors will review security plans, route analyses, and route choices for compliance with applicable regulations to ensure that the chosen route is the safest and most secure practicable route as supported by the analysis done by the carrier. If the inspection identifies deficiencies in the route analyses, security plan, or manner in which the plan is implemented, the deficiencies will be addressed using FRA's existing

enforcement procedures. Inspectors will have the discretion to issue notices of non-compliance or to recommend assessment of civil penalties for probable violations of the regulations. As indicated above, FRA may require a rail carrier to use an alternative route if the carrier's chosen route is found not to be the safest and most secure practicable route available.

#### *I. Appendix D to Part 172—Rail Risk Analysis Factors*

In the NPRM, we proposed minimum criteria in Appendix D to Part 172 to be used by rail carriers when performing the safety and security risk analyses required by § 172.820. We listed 27 factors in this appendix for carriers to consider in the analyses.

Generally, commenters support the rail risk analysis factors provided in Appendix D. For example, the Brotherhood of Locomotive Engineers and Trainmen, states that it wholeheartedly supports the risk analyses and that the appropriate metrics essential to a detailed risk analysis are provided in this appendix. Dow, AAR, and IME also provided comments. Most notably, IME indicated that it supports the factors, but suggest we enhance their usefulness by providing a ranking of the criteria listed in Appendix D or an indication of the order of precedence in which the factors should be considered. IME notes, for example, that a route with the best emergency response capability is likely to be a route that is more densely populated and asks how these factors should be weighted in such situations.

We agree that how these factors are weighted and used is an extremely important aspect of an overall safety and security risk assessment methodology. However, we do not believe that a one-size-fits-all approach to weighting the factors provides sufficient flexibility for rail carriers to address unique local conditions or concerns. We expect carriers to make conscientious efforts to develop logical and defensible systems using these factors. Tools to assist rail carriers to use the factors to assess the safety and security vulnerabilities of specific routes, including how to weight the factors in performing the analysis, are being developed with funding by a grant from the Department of Homeland Security. Initial products from this program were developed in 2007 and are currently being evaluated and refined. We expect the analysis tools to be available in 2008.

In this interim final rule, we are adopting the list of factors as proposed in the NPRM, with modifications for consistency with requirements of the 9/

11 Commission Act. Specifically, we are adding high consequence targets, as defined in § 1551(h)(2) to the list of factors that must be considered.

#### *J. Pre-Trip Security Inspections (§ 174.9)*

PHMSA proposed in the NPRM to increase the scope of the current safety inspection to include a security inspection of all rail cars carrying placarded loads of hazardous materials. The primary focus of the enhanced inspection is to recognize an IED, which is a device fabricated in an improvised manner incorporating explosives or destructive, lethal, noxious, pyrotechnic, or incendiary chemicals in its design, and generally including a power supply, a switch or timer, and a detonator or initiator.

To guard against the possibility that an unauthorized individual could tamper with rail cars containing hazardous materials to precipitate an incident during transportation, such as detonation or release using an IED, we proposed to require the rail carriers' pre-trip inspections of placarded rail cars to include an inspection for signs of tampering with the rail car, including its seals and closures, and an inspection for any item that does not belong, is suspicious, or may be an IED. When an indication of tampering or a foreign object is found, the rail carrier must take appropriate actions, before accepting the rail car for further movement, to ensure the security of the rail car and its contents have not been compromised.

The commenters overwhelmingly support the proposed inspection requirement. One commenter, BNSF Railway Company, asks PHMSA to provide specific details on how the inspection should be performed. It asks if walking the train or inspecting it from a slow moving vehicle would suffice for the inspection requirements. Another commenter, Dow, asks if PHMSA or TSA will provide the additional training necessary for rail carriers to comply with the proposed changes. The Chlorine Institute states that the additional training required in conjunction with regular training should not be overly burdensome.

Based on commenters' support for enhanced security inspections, we are adopting the provision as proposed in the NPRM. We offer the following clarifications in response to the commenters' questions.

The security inspection of each placarded rail car should be performed in conjunction with the safety inspection currently required under § 174.9. The inspection is to be conducted at ground level and at a close enough distance so that any problems

can be readily identified. A complete inspection will encompass the entire rail car at ground level, including the area beneath the rail car; thus, a proper inspection will cover more of a rail car than can be seen from a slow moving vehicle. An inspector must be able to identify signs of tampering, including closures and seals, suspicious items or items that do not belong, and other signs that the security of the car may have been compromised, including the presence of an IED. Where an indication of tampering or a foreign object is found, the rail carrier must take appropriate actions to ensure the security of the rail car and its contents have not been compromised before accepting the rail car for further movement.

We understand from the comments submitted by AAR that training to enable rail carrier personnel to comply with the security inspection requirements is already provided in most carriers' current inspection programs. In addition, as we stated in the preamble to the NPRM, TSA is developing instructional materials to assist rail carriers in training employees on identifying IEDs and signs of tampering. This training material should be completed and available by the middle of 2008.

#### *K. Preemptive Effect of This Interim Final Rule (§ 172.822)*

Because of the high level of interest in this issue, we proposed to address the preemptive effect of the final rule in the regulatory text. We explained our judgment that state and local regulation of rail routes for shipments of hazardous materials is preempted, by operation of the Federal hazardous materials transportation law (49 U.S.C. 5125) and the Federal Rail Safety Act (49 U.S.C. 20106), based on the agency's decision in Docket No. HM-232 to leave the routing of hazardous materials shipments to the judgment of rail carriers. We also stated our view that the route analysis and selection proposals in the NPRM, if adopted, "would have the same preemptive effect upon states, political subdivisions, or Indian tribes," because those proposals would "not change PHMSA's basic approach in HM-232 of leaving ultimate hazardous materials routing decisions to the rail carriers." 71 FR at 76845 & 76846.

We specifically invited comments from interested states, political subdivisions, and Indian tribes. Immediately after publication of the NPRM, we sent individual letters to the mayors of twelve cities where local officials had expressed concerns about routes of rail shipments of hazardous



materials and to the following organizations: The National Governors Association, Council of State Governments, National Conference of State Legislatures, United States Conference of Mayors, National Association of Counties, National League of Cities, and National Congress of American Indians. In these letters, we summarized the proposals in the NPRM and provided a copy of the NPRM, encouraged participation in the rulemaking and the public meeting on February 1, 2007, and offered to meet separately to discuss the rulemaking in detail. None of the organizations or cities accepted our offer to meet separately to discuss the NPRM, nor did they participate in the public meeting.

In response to the NPRM and these additional letters, we received numerous comments on whether or not states and political subdivisions are preempted from imposing additional designations or restrictions on routes for rail shipments of hazardous materials, beyond the route analysis and selection process proposed in the NPRM. In general, comments from industry included statements that there is a need for "national uniformity on the rail routing of TIH, explosive, and radioactive materials" (ACC); that "[b]y preempting state laws that restrict the movement of hazardous materials, PHMSA will ensure hazardous materials continue to travel on the safest and most secure mode of transportation for these items" (TFI, NITL); and that "Federal rulemaking and enforcement of hazardous materials regulations allows for a unified plan to effectively implement best practices throughout the nation" and "minimizes confusion for regulated entities by utilizing uniform criteria for all facilities" (Chlorine Institute).

However, some of the comments from shippers and carriers criticized the specific language proposed in the NPRM. IME questioned "why the statement was limited to these proposals and does not encompass all of the agency's security rules, or even all of the agency's security plan rules." In a set of jointly-filed comments, Dow, Olin, Norfolk Southern, Union Pacific, and Occidental ask PHMSA to "expand the preemption considerations described in proposed § 172.820(g)," because "routing is only one aspect of state and local regulation that has the potential to conflict with federal regulations." These companies also stated that "49 U.S.C. 20106 only authorizes *state* regulation in limited circumstances and excludes all references to 'political subdivisions of a State' (i.e. local government safety or security regulation)." (Emphasis in

original) In its separate comments, Dow stated that "PHMSA should make it abundantly clear that the federal hazardous material transportation law, 49 U.S.C. 5101 *et seq.*, substantially subsumes all state, local, and Indian tribe laws on the subject matter of the use of rail lines for the transportation of hazardous materials."

AAR asserted that the NPRM "fail[s] to provide the public with proper notice as to the scope of preemption. The fundamental preemption provision for railroad safety and security requirements is 49 U.S.C. section 20106," which "applies to regulatory action taken by any agency within DHS or DOT, including FRA, PHMSA, and TSA." AAR also stated that the NPRM falls short in addressing preemption because the preemption provision it proposes only addresses one aspect of the NPRM, routing requirements; exceeds its statutory authority by providing that PHMSA can waive preemption of state or local routing requirements; and ignores the complete preemption of local regulation of railroad safety and security.

Similarly, the City of Cleveland, Ohio stated that the regulatory text proposed in the NPRM should also refer to 49 U.S.C. section 20106, and also contended that § 20106 allows "state governments (interpreted by case law to also include local governments)" to adopt an additional requirement on rail transportation which: "(1) Is necessary to eliminate or reduce an essentially local safety or security hazard; is not incompatible with a law, regulation, or order of the United States Government; and (3) does not unreasonably burden interstate commerce." The City of Cleveland, Ohio also asserted that, as one of the high threat urban areas (HTUA) designated by TSA, "it should be provided with special consideration with respect to its needs to adopt enhanced regulations and the possible need to enact specific routing restrictions for rail."

PHMSA agrees with those comments that suggest that the regulatory language on preemption should refer to both 49 U.S.C. section 5125 and 20106, because both of those provisions must be considered in any determination whether a non-Federal requirement on rail transportation of hazardous materials is preempted. *See CSX Transportation, Inc. v. Easterwood*, 507 U.S. 658, 663 n. 4 (1993); *CSX Transportation, Inc. v. Public Utilities Comm'n*, 901 F.2d 497, 501 (6th Cir. 1990), cert. denied, 498 U.S. 1066 (1991) ("any regulation" adopted by the Secretary of Transportation respecting railroad safety matters, regardless of the

law under which the regulation is adopted, may have preemptive effect under § 20106). Moreover, as stated in the NPRM, PHMSA has concluded (and the United States has taken the position in the pending lawsuit over the District of Columbia [District] ordinance) that both §§ 5125 and 20106 preempt any non-Federal designation or restriction of routes for rail shipments of hazardous materials.

PHMSA also agrees with those commenters who suggested that we clarify that the preemption provisions of 49 U.S.C. sections 5125 and 20106 apply to all of the HMR, not just to § 172.820. Therefore, in place of proposed § 172.820(g), we are adding a new § 172.822 dealing with the preemptive effect of the HMR, including subpart I. Section 172.822 refers to the statutory standards for preemption in 49 U.S.C. sections 5125 and 20106, which we believe would apply to any state, local, or Indian tribe requirement affecting the transportation of hazardous materials, including the designation or restriction of routes for rail shipments of hazardous materials.

The District referred to the pending lawsuit by CSX Transportation, Inc. which challenges the District's ordinance against rail shipments of certain types and quantities of hazardous materials within 2.2 miles of the U.S. Capitol building. The District stated that "the fundamental role of government is to protect its citizens. That role should be left to the District here, and not given to private industry, unless and until the federal government develops the capacity to make such determinations." The City of Baltimore, Maryland, emphasized that the decision of the Court of Appeals in the CSX litigation "did not represent a final ruling on the merits of the issue," but simply overturned the District Court's denial of a preliminary injunction.

The Chairman and three other members of the Homeland Security Committee of the U.S. House of Representatives stated there is a need for "clear and mandatory direction from the federal government," and a "finding of preemption is a gift to the industry and strips away local and state governments' ability to protect its citizens."

As we have indicated elsewhere in this rule, rerouting of hazardous materials to avoid densely populated or sensitive areas may well increase safety and security risks. Moreover, routing restrictions or prohibitions enacted by states or local governments transfer safety and security risks to other areas but do little to achieve enhanced safety and security for the rail transportation

system as a whole. We note that virtually every urban and suburban jurisdiction in the United States has a population density that is a matter of concern in planning for and regulating hazardous materials transportation; if all of the jurisdictions located on or near rail routes were to enact routing restrictions applicable to the rail transportation of hazardous materials, such transportation would come to a virtual standstill. The provisions adopted in this interim final rule will reduce the overall risks posed by the movement of explosive, PIH, and radioactive materials by rail, without imposing an undue burden on transportation.

In § 1528 of the 9/11 Commission Act, Congress restructured the preemption provision in 49 U.S.C. 20106 by placing the then-existing language in a new paragraph (a), and in a new paragraph (b) clarifying what state law causes of action for personal injury, death, or property damage are not preempted. The Joint Conference Report on § 1528 makes clear that the restructuring of 49 U.S.C. 20106 was not intended to make any substantive change to the meaning of new paragraph (a). Rather, as specified in § 1551(h), the specific authority of states, localities, and Indian tribes is limited to providing information on the security risks to high-consequence targets along or in proximity to a route used by a rail carrier to transport security-sensitive materials. Nonetheless, as discussed above, this does not prevent rail carriers from working with state, local, and tribal governments, including sharing information as necessary and appropriate, to enable these non-Federal government bodies to provide meaningful input into the rail carrier's process of conducting the route safety and security analysis, and making routing decisions based on that analysis, as required by this interim final rule. We encourage such cooperation between rail carriers and state, local, and tribal officials.

In this regard, Eureka County, Nevada, expressed concern that the proposed requirements for rail carriers to select the routes based on an analysis of safety and security risks would preempt the announced program of the Department of Energy (DOE) to work with stakeholders, including state regional groups, in selecting routes for shipments of spent nuclear fuel to Yucca Mountain. We do not believe that this interim final rule will adversely affect the DOE program for selecting spent nuclear fuel routes. Indeed, the DOE effort to include stakeholders in its route selection deliberations is precisely

the model we mandate that rail carriers follow as they implement the provisions adopted in this interim final rule—that is, to work with state and local governments in conducting route safety and security analyses and in making routing decisions based on the analyses. Nothing in this interim final rule should be construed or applied in a manner inconsistent with DOE fulfilling its obligations under § 180(c) of the Nuclear Waste Policy Act to provide technical assistance and funds to states and tribes for training public safety officials on procedures for safe routine transportation and emergency response with regard to spend nuclear fuel or high level waste shipments to a repository.

The National Association of SARA Title III Program Officials, the Colorado Emergency Planning Commission, and the Jefferson County, Colorado, Local Emergency Planning Committee stated that “preemption must come with a benefit” and that “PHMSA should require carriers to consider increased risk to a community as part of their routing decisions.” We note in this regard that the routing safety and security analyses adopted in this interim final rule require rail carriers to consider the safety and security risks of the routes they use, considering factors such as population density along the route, venues along the route (stations, events, places of congregation), emergency response capability along the route, and areas of high consequence along the route.

## VIII. Regulatory Analyses and Notices

### A. Statutory/Legal Authority for This Rulemaking

This interim final rule is published under authority of Federal Hazardous Materials Transportation Law (Federal Hazmat Law; 49 U.S.C. 5101 *et seq.*) Section 5103(b) of Federal Hazmat Law authorizes the Secretary of Transportation to prescribe regulations for the safe transportation, including security, of hazardous materials in intrastate, interstate, and foreign commerce. In addition, this interim final rule is published under authority of the Implementing the Recommendations of the 9/11 Commission Act of 2007. Section 1551 of the 9/11 Commission Act directs the Secretary of Transportation, in consultation with the Secretary of Homeland Security, to publish a final rule by May 3, 2008, based on the NPRM published under this docket on December 21, 2006. In accordance with Section 1551(e) of the Act, PHMSA's final rule must require rail carriers of

“security-sensitive materials” to “select the safest and most secure route to be used in transporting” those materials, based on the rail carrier's analysis of the safety and security risks on primary and alternate transportation routes over which the carrier has authority to operate.

### B. Executive Order 12866 and DOT Regulatory Policies and Procedures

This interim final rule is a significant regulatory action under section 3(f) Executive Order 12866 and, therefore, was reviewed by the Office of Management and Budget (OMB). The interim final rule is a significant rule under the Regulatory Policies and Procedures order issued by the U.S. Department of Transportation (44 FR 11034). We completed a regulatory evaluation and placed it in the docket for this rulemaking.

Generally, costs associated with the provisions of this interim final rule include costs for collecting and retaining data and performing the mandated route safety and security analysis. We estimate total 20-year costs to gather the data and conduct the analyses proposed in this interim final rule to be about \$20 million (discounted at 7%).

In addition, rail carriers and shippers may incur costs associated with rerouting shipments or mitigating safety and security vulnerabilities identified as a result of their route analyses. Because the interim final rule builds on the current route evaluation and routing practices already in place for most, if not all, railroads that haul the types of hazardous materials covered, we do not expect rail carriers to incur significant costs associated with rerouting. The railroads already conduct route analyses and re-routing—in line with what this rule would require—in accordance with the AAR comments and Circular OT-55-I. Moreover, the smaller carriers (regionals and short lines) are unlikely to have access to many alternative routes, and where an alternative does exist, it is not likely to be safer and more secure than the route they are currently using. If there is an alternative route the carrier determines to be safer and more secure than the one it is currently using, the carrier could well switch routes, even in the absence of a regulatory requirement, because it reduces the overall risk to its operations. Such reduction in risk offers a significant economic advantage in the long run.

Identifying and mitigating security vulnerabilities along rail routes is currently being done by the railroads. We believe that readily available “high-tech” and “low-tech” measures are

being quickly implemented. The development, procurement, and wide-spread installation of the more technology-driven alternatives could take several years, however, PHMSA's previous security rule requires the railroads to have a security plan that includes en route security. This existing regulatory requirement, coupled with industry efforts to address security vulnerabilities, has caused railroads to enhance their security posture. As with routing decisions, such reduction in risk offers a significant economic advantage in the long run. Therefore, we expect that the cost of mitigation attributed solely to this interim final rule will not be significant. We note in this regard that safety and security measures are intertwined and often complementary; therefore, separating security costs from safety costs is not feasible.

We do not expect this interim final rule to result in a diversion from railroads to trucks. For the movements subject to this rule, transportation and distribution patterns, with associated infrastructure, tend to be well-established. For example, the vast majority of PIH offerors ship by rail; indeed, many do not have the infrastructure (loading racks, product transfer facilities) necessary to utilize trucks for such transportation. Moreover, the current fleet of cargo tank motor vehicles is insufficient to handle a significant shift of PIH cargoes from rail to highway—for example, there are only 85 cargo tank motor vehicles used for the transportation of chlorine. Because it takes about four tank trucks to haul the amount of product that can be moved in a rail tank car, the industry would have to build many more trucks to accommodate a shift in transportation from rail to highway, necessitating a significant expansion in current tank truck manufacturing capacity. In addition, because it takes four trucks to transport the same amount of product as a single rail tank car, it generally is only cost-effective to utilize trucks for relatively limited distances. A farm cooperative or agricultural products distributor, for example, typically receives large quantities of anhydrous ammonia by rail car and offloads the material into storage tanks for subsequent truck movement to local customers.

Changing these established transportation patterns would require substantial investment in new capacity and infrastructure, vastly exceeding the costs of complying with the interim final rule. Under these circumstances, we do not expect any shift in transportation mode as a result of implementation of this interim final

rule. We note in this regard that no commenters raised this issue in their discussions of the potential impacts of the proposals in the NPRM. Overall transportation costs should not substantially increase because of this interim final rule.

Estimating the security benefits of the new requirements is challenging. Accident causation probabilities can be estimated based on accident histories in a way that the probability of a criminal or terrorist act cannot. The threat of an attack is virtually impossible to assess from a quantitative standpoint. It is undeniable that hazardous materials in transportation are a possible target of terrorism or sabotage. The probability that hazardous materials will be targeted is, at best, a guess. Similarly, the projected outcome of a terrorist attack cannot be precisely estimated. It is assumed choices will be made to maximize consequences and damages. Scenarios can be envisioned in which hazardous materials could be used to inflict hundreds or even thousands of fatalities. To date, there have been no known or specific threats against freight railroads, rail cars, or tank cars, which makes all of these elements even more difficult to quantify. Security plans lower risk through the identification and mitigation of vulnerabilities. Therefore, rail carriers and the public benefit from the development and implementation of security plans. However, forecasting the benefits likely to result from plan implementation requires the exercise of judgment and necessarily includes subjective elements.

The major benefits expected to result from this interim final rule relate to enhanced safety and security of rail shipments of hazardous materials. We estimated the costs of a major accident or terrorist incident by calculating the costs of the January 2005 Graniteville, South Carolina, accident. This accident killed nine people and injured 554 more. In addition, the accident necessitated the evacuation of more than 5,400 people. Total costs associated with the Graniteville accident are almost \$126 million. The consequences of an intentional release by a criminal or terrorist action, particularly in an urban area, likely would be more severe than the Graniteville accident because an intentional act would be designed to inflict the most damage possible. The requirements of the interim final rule are intended to reduce the safety and security risks associated with the transportation of the specified hazardous materials. If the measures proposed in this interim final rule

prevent just one major accident or intentional release over a twenty-year period, the resulting benefits would more than justify the potential compliance costs; we believe that they could.

#### *C. Executive Order 13132*

This interim final rule has been analyzed in accordance with the principles and criteria contained in Executive Orders 13132 ("Federalism") and 13175 ("Consultation and Coordination with Indian Tribal Governments"). This interim final rule would not have any direct effect on the states, their political subdivisions, or Indian tribes; it would not impose any compliance costs; and it would not affect the relationships between the national government and the states, political subdivisions, or Indian tribes, or the distribution of power and responsibilities among the various levels of government.

Section VI.K above contains a discussion of PHMSA's conclusion that the decision in the March 25, 2003 final rule in HM-232 to leave to rail carriers the specifics of routing rail shipments of hazardous materials preempts all states, their political subdivisions, and Indian tribes from prescribing or restricting routes for rail shipments of hazardous materials, under Federal hazardous material transportation law (49 U.S.C. 5125) and the Federal Rail Safety Act (49 U.S.C. 20106). In that section, we also discuss the comments on the proposed language in the NPRM concerning the preemptive effect of HM-232 and this interim final rule and explain the reasons for adopting revised language in 49 CFR 172.822.

#### *D. Executive Order 13175*

We analyzed this interim final rule in accordance with the principles and criteria prescribed in Executive Order 13175 ("Consultation and Coordination with Indian Tribal Governments"). Because this interim final rule does not significantly or uniquely affect tribes, and does not impose substantial and direct compliance costs on Indian tribal governments, the funding and consultation requirements of Executive Order 13175 do not apply; thus, a tribal summary impact statement is not required.

#### *E. Regulatory Flexibility Act, Executive Order 13272, and DOT Procedures and Policies*

To ensure potential impacts of rules on small entities are properly considered, we developed this interim final rule in accordance with Executive Order 13272 ("Proper Consideration of

Small Entities in Agency Rulemaking”) and DOT’s procedures and policies to promote compliance with the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*).

The Regulatory Flexibility Act requires an agency to review regulations to assess their impact on small entities. An agency must conduct a regulatory flexibility analysis unless it determines and certifies that a rule is not expected to have a significant impact on a substantial number of small entities.

The Small Business Administration (SBA) permits agencies to alter the SBA definitions for small businesses upon consultation with SBA and in conjunction with public comment. Pursuant to this authority, FRA published a final rule (68 FR 24891; May 9, 2003) defining a “small entity” as a railroad meeting the line haulage revenue requirements of a Class III railroad. Currently, the revenue requirements are \$20 million or less in annual operating revenue. This is the definition used by PHMSA to determine the potential impact of this interim final rule on small entities.

Not all small railroads will be required to comply with the provisions of this interim final rule. Most of the 510 small railroads transport no hazardous materials. PHMSA and FRA estimate there are about 100 small railroads—or 20% of all small railroads—that could potentially be affected by this interim final rule. Cost impacts for small railroads will result primarily from the costs for data collection and analysis. PHMSA estimates the cost to each small railroad to be \$2,776.70 per year over 20 years, discounted at 7%. Based on small railroads’ annual operating revenues, these costs are not significant. Small railroads’ annual operating revenues range from \$3 million to \$20 million. Thus, the costs imposed by the interim final rule amount to between 0.01% and 0.09% of a small railroad’s annual operating revenue.

This interim final rule will not have a noticeable impact on the competitive position of the affected small railroads or on the small entity segment of the railroad industry as a whole. The small entity segment of the railroad industry faces little in the way of intramodal competition. Small railroads generally serve as “feeders” to the larger railroads, collecting carloads in smaller numbers and at lower densities than would be economical for the larger railroads. They transport those cars over relatively short distances and then turn them over to the larger systems, which transport them relatively long distances to their ultimate destination, or for handoff back

to a smaller railroad for final delivery. Although their relative interests do not always coincide, the relationship between the large and small entity segments of the railroad industry is more supportive and co-dependent than competitive.

It is also rare for small railroads to compete with each other. As mentioned above, small railroads generally serve smaller, lower density markets and customers. They tend to operate in markets where there is not enough traffic to attract or sustain rail competition, large or small. Given the significant capital investment required (to acquire right-of-way, build track, purchase fleet, etc.), new entry in the railroad industry is especially rare. Thus, even to the extent the interim final rule may have an economic impact, it should have no impact on the intramodal competitive position of small railroads.

We did not receive any comments in opposition to our conclusion that this rulemaking will not have a significant impact on a substantial number of small entities. Based on the lack of opposing comments, the foregoing discussion, and more detailed analysis in the regulatory evaluation for this interim final rule, I certify that the provisions of this interim final rule, if adopted, will not have a significant impact on a substantial number of small entities.

#### *F. Paperwork Reduction Act*

This interim final rule may result in an increase in annual burden and costs under Office of Management and Budget (OMB) Control Number 2137–0612. PHMSA currently has an approved information collection under OMB Control No. 2137–0612, “Hazardous Materials Security Plans” expiring May 31, 2009.

Under the Paperwork Reduction Act of 1995, no person is required to respond to an information collection unless it has been approved by OMB and displays a valid OMB control number. 5 CFR 1320.8(d) requires that PHMSA provide interested members of the public and affected agencies an opportunity to comment on information and recordkeeping requests.

This notice identifies a revised information collection request that PHMSA submitted to OMB for approval based on the requirements in this rule. PHMSA has developed burden estimates to reflect changes in this proposed rule. We estimate that the total information collection and recordkeeping burden for the current requirements and as specified in this rule would be as follows:

#### **OMB No. 2137–0612, “Hazardous Materials Security Plans”**

*First Year Annual Burden:*  
*Total Annual Number of Respondents:* 139.  
*Total Annual Responses:* 139.  
*Total Annual Burden Hours:* 51,469.  
*Total Annual Burden Cost:* \$3,130,859.27.  
*Subsequent Year Burden:*  
*Total Annual Number of Respondents:* 139.  
*Total Annual Responses:* 139.  
*Total Annual Burden Hours:* 13,677.  
*Total Annual Burden Cost:* \$831,971.91.

Direct your requests for a copy of the information collection to Deborah Boothe or T. Glenn Foster, U.S. Department of Transportation, Pipeline & Hazardous Materials Safety Administration (PHMSA), East Building, Office of Hazardous Materials Standards (PHH–11), 1200 New Jersey Avenue Southeast Washington DC, 20590, Telephone (202) 366–8553.

#### *G. Regulation Identifier Number (RIN)*

A regulation identifier number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

#### *H. Unfunded Mandates Reform Act*

This interim final rule does not impose unfunded mandates under the Unfunded Mandates Reform Act of 1995. It does not result in costs of \$120.7 million or more to either state, local, or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative to achieve the objective of the rule.

#### *I. Environmental Assessment*

The National Environmental Policy Act, 42 U.S.C. 4321–4375, requires that federal agencies analyze proposed actions to determine whether the action will have a significant impact on the human environment. The Council on Environmental Quality (CEQ) regulations order federal agencies to conduct an environmental review considering: (1) The need for the proposed action; (2) alternatives to the proposed action; (3) probable environmental impacts of the proposed action and alternatives; and (4) the agencies and persons consulted during the consideration process. 40 CFR 1508.9(b).

In accordance with the CEQ regulations, we completed an environmental assessment for this interim final rule that considers the potential environmental impacts of three alternatives. The environmental assessment is available for review in the public docket for this rulemaking.

The provisions of this interim final rule build on current regulatory requirements to enhance the transportation safety and security of shipments of hazardous materials transported by rail, thereby reducing the risks of an accidental or intentional release of hazardous materials and consequent environmental damage. The net environmental impact, therefore, will be moderately positive. There are no significant environmental impacts associated with this interim final rule.

#### *J. Privacy Act*

Anyone is able to search the electronic form of any written communications and comments received into any of our dockets by the name of the individual submitting the document (or signing the document, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477) or you may visit <http://www.regulations.gov>.

#### **List of Subjects**

##### *49 CFR Part 172*

Hazardous materials transportation, Hazardous waste, Labeling, Packaging and containers, Reporting and recordkeeping requirements.

##### *49 CFR Part 174*

Hazardous materials transportation, Rail carriers, Reporting and recordkeeping requirements.

■ In consideration of the foregoing, we are amending title 49 Chapter I, Subchapter C, as follows:

#### **PART 172—HAZARDOUS MATERIALS TABLE, SPECIAL PROVISIONS, HAZARDOUS MATERIALS COMMUNICATIONS, EMERGENCY RESPONSE INFORMATION, AND TRAINING REQUIREMENTS**

■ 1. The authority citation for part 172 continues to read as follows:

**Authority:** 49 U.S.C. 5101–5128, 44701; 49 CFR 1.53.

■ 2. Revise the title of subpart I of part 172 to read as follows:

#### **Subpart I—Safety and Security Plans**

■ 3. Add new § 172.820, to read as follows:

##### **§ 172.820 Additional planning requirements for transportation by rail.**

(a) *General.* Each rail carrier transporting in commerce one or more of the following materials is subject to the additional safety and security planning requirements of this section:

(1) More than 2,268 kg (5,000 lbs) in a single carload of a Division 1.1, 1.2 or 1.3 explosive;

(2) A bulk quantity of a material poisonous by inhalation, as defined in § 171.8 of this subchapter (including anhydrous ammonia); or

(3) A highway route-controlled quantity of a Class 7 (radioactive) material, as defined in § 173.403 of this subchapter.

(b) *Commodity data.* Not later than 90 days after the end of each calendar year, a rail carrier must compile commodity data for the previous calendar year for the materials listed in paragraph (a) of this section, except that for calendar year 2008, data may be compiled for the 6-month period beginning July 1, 2008. The following stipulations apply to data collected:

(1) Commodity data must be collected by route, a line segment or series of line segments as aggregated by the rail carrier. Within the rail carrier selected route, the commodity data must identify the geographic location of the route and the total number of shipments by UN identification number for the materials specified in paragraph (a) of this section.

(2) A carrier may compile commodity data, by UN number, for all Class 7 materials transported (instead of only highway route controlled quantities of Class 7 materials) and for all Division 6.1 materials transported (instead of only Division 6.1 poison inhalation hazard materials).

(c) *Rail transportation route analysis.* For each calendar year, a rail carrier must analyze the safety and security risks for the transportation route(s), identified in the commodity data collected as required by paragraph (b) of this section. The route analysis must be in writing and include the factors contained in Appendix D to this part, as applicable.

(1) The safety and security risks present must be analyzed for the route and railroad facilities along the route. For purposes of this section, railroad facilities are railroad property including, but not limited to, classification and switching yards, storage facilities, and non-private

siding. This term does not include an offeror's facility, private track, private siding, or consignee's facility.

(2) In performing the analysis required by this paragraph, the rail carrier must seek relevant information from state, local, and tribal officials, as appropriate, regarding security risks to high-consequence targets along or in proximity to the route(s) utilized. If a rail carrier is unable to acquire relevant information from state, local, or tribal officials, then it must document that in its analysis. For purposes of this section, a high-consequence target means a property, natural resource, location, area, or other target designated by the Secretary of Homeland Security that is a viable terrorist target of national significance, the attack of which by railroad could result in catastrophic loss of life, significant damage to national security or defense capabilities, or national economic harm.

(d) *Alternative route analysis.* (1) For each calendar year, a rail carrier must identify practicable alternative routes over which it has authority to operate, if an alternative exists, as an alternative route for each of the transportation routes analyzed in accordance with paragraph (c) of this section. The carrier must perform a safety and security risk assessment of the alternative routes for comparison to the route analysis prescribed in paragraph (c) of this section. The alternative route analysis must be in writing and include the criteria in Appendix D of this part. When determining practicable alternative routes, the rail carrier must consider the use of interchange agreements with other rail carriers. The written alternative route analysis must also consider:

(i) Safety and security risks presented by use of the alternative route(s);

(ii) Comparison of the safety and security risks of the alternative(s) to the primary rail transportation route, including the risk of a catastrophic release from a shipment traveling along each route;

(iii) Any remediation or mitigation measures implemented on the primary or alternative route(s); and

(iv) Potential economic effects of using the alternative route(s), including but not limited to the economics of the commodity, route, and customer relationship.

(2) In performing the analysis required by this paragraph, the rail carrier should seek relevant information from state, local, and tribal officials, as appropriate, regarding security risks to high-consequence targets along or in proximity to the alternative routes. If a rail carrier determines that it is not

appropriate to seek such relevant information, then it must explain its reasoning for that determination in its analysis.

(e) *Route Selection.* A carrier must use the analysis performed as required by paragraphs (c) and (d) of this section to select the route to be used in moving the materials covered by paragraph (a) of this section. The carrier must consider any remediation measures implemented on a route. Using this process, the carrier must at least annually review and select the practicable route posing the least overall safety and security risk. The rail carrier must retain in writing all route review and selection decision documentation and restrict the distribution, disclosure, and availability of information contained in the route analysis to covered persons with a need-to-know, as described in parts 15 and 1520 of this title. This documentation should include, but is not limited to, comparative analyses, charts, graphics or rail system maps.

(f) *Completion of route analyses.* (1) The initial rail transportation route analysis, alternative route analysis, and route selection process required under paragraphs (c), (d), and (e) of this section must be completed by September 1, 2009. In subsequent years, the rail transportation route analysis, alternative route analysis, and route selection process required under paragraphs (c), (d), and (e) of this section must be completed no later than the end of the calendar year following the year to which the analyses apply. The initial analysis and route selection determinations required under paragraphs (c), (d), and (e) of this section must include a comprehensive review of the entire system. Subsequent analyses and route selection determinations required under paragraphs (c), (d), and (e) of this section must include a comprehensive, system-wide review of all operational changes, infrastructure modifications, traffic adjustments, changes in the nature of high-consequence targets located along, or in proximity to, the route, and any other changes affecting the safety or security of the movements of the materials specified in paragraph (a) of this section that were implemented during the calendar year.

(2) A rail carrier need not perform a rail transportation route analysis, alternative route analysis, or route selection process for any hazardous material other than the materials specified in paragraph (a) of this section.

(g) *Storage, delays in transit, and notification.* With respect to the materials specified in paragraph (a) of

this section, each rail carrier must ensure the safety and security plan it develops and implements under this subpart includes all of the following:

(1) A procedure under which the rail carrier must formally consult with offerors and consignees in order to develop measures for minimizing, to the extent practicable, the duration of any storage of the material incidental to movement (see § 171.8 of this subchapter). Such measures should be implemented with mutual consent of all parties.

(2) Measures to prevent unauthorized access to the materials during storage or delays in transit.

(3) Measures to mitigate risk to population centers associated with in-transit storage.

(4) Measures to be taken in the event of an escalating threat level for materials stored in transit.

(5) Procedures for notifying the consignee in the event of a significant delay during transportation; such notification must be completed within 48 hours after the carrier has identified the delay and must include a revised delivery schedule. A significant delay is one that compromises the safety or security of the hazardous material or delays the shipment beyond its normal expected or planned shipping time. Notification should be made by a method acceptable to both the rail carrier and consignee.

(h) *Recordkeeping.* (1) Each rail carrier must maintain a copy of the information specified in paragraphs (b), (c), (d), (e), and (f) of this section (or an electronic image thereof) that is accessible at, or through, its principal place of business and must make the record available upon request, at a reasonable time and location, to an authorized official of the Department of Transportation or the Department of Homeland Security. Records must be retained for a minimum of two years.

(2) Each rail carrier must restrict the distribution, disclosure, and availability of information collected or developed in accordance with paragraphs (c), (d), (e), and (f) of this section to covered persons with a need-to-know, as described in parts 15 and 1520 of this title.

(i) *Compliance and enforcement.* If the carrier's route selection documentation and underlying analyses are found to be deficient, the carrier may be required to revise the analyses or make changes in route selection. If DOT finds that a chosen route is not the safest and most secure practicable route available, the FRA Associate Administrator for Safety, in consultation with TSA, may require the use of an alternative route. Prior to making such

a determination, FRA and TSA will consult with the Surface Transportation Board (STB) regarding whether the contemplated alternative route(s) would be economically practicable.

■ 4. Add new § 172.822 to read as follows:

**§ 172.822 Limitation on actions by states, local governments, and Indian tribes.**

A law, order, or other directive of a state, political subdivision of a state, or an Indian tribe that designates, limits, or prohibits the use of a rail line (other than a rail line owned by a state, political subdivision of a state, or an Indian tribe) for the transportation of hazardous materials, including, but not limited to, the materials specified in § 172.820(a), is preempted. 49 U.S.C. 5125, 20106.

■ 5. Add new Appendix D to part 172, to read as follows:

**Appendix D to Part 172—Rail Risk Analysis Factors**

A. This appendix sets forth the minimum criteria that must be considered by rail carriers when performing the safety and security risk analyses required by § 172.820. The risk analysis to be performed may be quantitative, qualitative, or a combination of both. In addition to clearly identifying the hazardous material(s) and route(s) being analyzed, the analysis must provide a thorough description of the threats, identified vulnerabilities, and mitigation measures implemented to address identified vulnerabilities.

B. In evaluating the safety and security of hazardous materials transport, selection of the route for transportation is critical. For the purpose of rail transportation route analysis, as specified in § 172.820(c) and (d), a route may include the point where the carrier takes possession of the material and all track and railroad facilities up to the point where the material is relinquished to another entity. Railroad facilities are railroad property including, but not limited to, classification and switching yards, storage facilities, and non-private sidings; however, they do not include an offeror's facility, private track, private siding, or consignee's facility. Each rail carrier must use best efforts to communicate with its shippers, consignees, and interlining partners to ensure the safety and security of shipments during all stages of transportation.

C. Because of the varying operating environments and interconnected nature of the rail system, each carrier must select and document the analysis method/model used and identify the routes to be analyzed.

D. The safety and security risk analysis must consider current data and information as well as changes that may reasonably be anticipated to occur during the analysis year. Factors to be considered in the performance of this safety and security risk analysis include:

1. Volume of hazardous material transported;

2. Rail traffic density;
3. Trip length for route;
4. Presence and characteristics of railroad facilities;
5. Track type, class, and maintenance schedule;
6. Track grade and curvature;
7. Presence or absence of signals and train control systems along the route ("dark" versus signaled territory);
8. Presence or absence of wayside hazard detectors;
9. Number and types of grade crossings;
10. Single versus double track territory;
11. Frequency and location of track turnouts;
12. Proximity to iconic targets;
13. Environmentally sensitive or significant areas;
14. Population density along the route;
15. Venues along the route (stations, events, places of congregation);
16. Emergency response capability along the route;
17. Areas of high consequence along the route, including high consequence targets as defined in § 172.820(c);
18. Presence of passenger traffic along route (shared track);
19. Speed of train operations;
20. Proximity to en-route storage or repair facilities;
21. Known threats, including any non-public threat scenarios provided by the Department of Homeland Security or the Department of Transportation for carrier use in the development of the route assessment;
22. Measures in place to address apparent safety and security risks;
23. Availability of practicable alternative routes;
24. Past incidents;
25. Overall times in transit;
26. Training and skill level of crews; and
27. Impact on rail network traffic and congestion.

## PART 174—CARRIAGE BY RAIL

- 6. The authority citation for part 174 continues to read as follows:

**Authority:** 49 U.S.C. 5101–5128; 49 CFR 1.53.

- 7. Revise § 174.9 to read as follows:

### § 174.9 Safety and security inspection and acceptance.

(a) At each location where a hazardous material is accepted for transportation or placed in a train, the carrier must inspect each rail car containing the hazardous material, at ground level, for required markings, labels, placards, securement of closures, and leakage. These inspections may be performed in conjunction with inspections required under parts 215 and 232 of this title.

(b) For each rail car containing an amount of hazardous material requiring placarding in accordance with § 172.504 of this subchapter, the carrier must visually inspect the rail car at ground level for signs of tampering, including closures and seals, for suspicious items or items that do not belong, and for other signs that the security of the car may have been compromised, including the presence of an improvised explosive device. As used in this section, an improvised explosive device is a device fabricated in an improvised manner incorporating explosives or destructive, lethal, noxious, pyrotechnic, or incendiary chemicals in its design, and generally includes a power supply, a switch or timer, and a detonator or initiator. The carrier should be

particularly attentive to signs that security may have been compromised on rail cars transporting materials covered by § 172.820 of this subchapter, rail carload quantities of ammonium nitrate or ammonium nitrate mixtures in solid form, or hazardous materials of interest based on current threat information.

(c) If a rail car does not conform to the safety and security requirements of this subchapter, the carrier may not forward or transport the rail car until the deficiencies are corrected or the car is approved for movement in accordance with § 174.50.

(d) Where an indication of tampering or suspicious item is found, a carrier must take appropriate action to ensure the security of the rail car and its contents have not been compromised before accepting the rail car for further movement. If the carrier determines that the security of the rail car has been compromised, the carrier must take action, in conformance with its existing security plan (see subpart I of part 172 of this subchapter) to address the security issues before forwarding the rail car for further movement.

Issued in Washington, DC on April 11, 2008, under the authority delegated in 49 CFR part 1.

**Carl T. Johnson,**

*Administrator.*

[FR Doc. E8–8185 Filed 4–15–08; 8:45 am]

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