

DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials
Safety Administration

49 CFR Parts 172 and 174

[Docket No. RSPA-04-18730 (HM-232E)]

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: Notice of proposed rulemaking (NPRM).

SUMMARY: The Pipeline and Hazardous Materials Safety Administration (PHMSA), in consultation with the Federal Railroad Administration (FRA) and the Transportation Security Administration (TSA), is proposing to revise the current requirements in the Hazardous Materials Regulations applicable to the safe and secure transportation of hazardous materials transported in commerce by rail. Specifically, we are proposing 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 transportation routes where those materials are transported, assess alternative routing options, and make routing decisions based on those assessments. We are also proposing 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. In today's edition of the **Federal Register**, TSA is publishing an NPRM proposing additional security requirements for rail transportation.

DATES: Submit comments by February 20, 2007. To the extent possible, we will consider late-filed comments as we develop a final rule.

ADDRESSES: You may submit comments identified by the docket number RSPA-04-18730 by any of the following methods:

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

- *Web site:* <http://dms.dot.gov>. Follow the instructions for submitting comments on the DOT electronic docket site.

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

- *Mail:* Docket Management System; U.S. Department of Transportation, 400 Seventh Street, SW., Nassif Building, Room PL-401, Washington, DC 20590-0001. If sent by mail, comments are to be submitted in two copies. Persons wishing to receive confirmation of receipt of their comments should include a self-addressed stamped postcard.

- *Hand Delivery:* Docket Management System; Room PL-401 on the plaza level of the Nassif Building, 400 Seventh Street, SW., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Instructions: You must include the agency name and docket number RSPA-04-18730 for this notice at the beginning of your comment. Internet users may access comments received by DOT at <http://dms.dot.gov>. Note that comments received may be posted without change to <http://dms.dot.gov> including any personal information provided. Please see the Privacy Act section of this document.

While all comments should be sent to DOT's Docket Management System (DMS), comments or those portions of comments PHMSA determines to include trade secrets, confidential commercial information, or sensitive security information (SSI) will not be placed in the public docket and will be handled separately. If you believe your comments contain trade secrets, confidential commercial information, or SSI, those comments or the relevant portions of those comments should be appropriately marked so that DOT may make a determination. PHMSA procedures in 49 CFR part 105 establish a mechanism by which commenters may request confidentiality.

In accordance with 49 CFR 105.30, you may ask PHMSA to keep information confidential using the following procedures: (1) Mark "confidential" on each page of the original document you would like to keep confidential; (2) send DMS both the original document and a second copy of the original document with the confidential information deleted; and (3) explain why the information is confidential (such as a trade secret, confidential commercial information, or SSI). In your explanation, you should provide enough information to enable PHMSA to determine whether the information provided is protected by law and must be handled separately.

In addition, for comments or portions of comments that you believe contain SSI as defined in 49 CFR 15.7, you should comply with Federal regulations governing restrictions on the disclosure of SSI. See 49 CFR 1520.9 and 49 CFR

15.9, Restrictions on the disclosure of sensitive security information. For example, these sections restrict the sharing of SSI to those with a need to know, set out the requirement to mark the information as SSI, and address how the information should be disposed. Note also when mailing in or using a special delivery service to send comments containing SSI, comments should be wrapped in a manner to prevent the information from being read. PHMSA and TSA may perform concurrent reviews on requests for designations as SSI.

After reviewing your request for confidentiality and the information provided, PHMSA will analyze applicable laws and regulations to decide whether to treat the information as confidential. PHMSA will notify you of the decision to grant or deny confidentiality. If PHMSA denies confidentiality, you will be provided an opportunity to respond to the denial before the information is publicly disclosed. PHMSA will reconsider its decision to deny confidentiality based on your response.

Regarding comments not marked as confidential, prior to posting comments received in response to this notice in the public docket, PHMSA will review all comments, whether or not they are identified as confidential, to determine if the submission or portions of the submission contain information that should not be made available to the general public. PHMSA will notify you if the agencies make such a determination relative to your comment. If, prior to submitting your comment, you have any questions concerning the procedures for determining confidentiality or security sensitivity, you may call one of the individuals listed below under **FOR FURTHER INFORMATION CONTACT** for more information.

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

SUPPLEMENTARY INFORMATION:**I. Background**

The Federal hazardous materials transportation law (Federal hazmat law, 49 U.S.C. 5101 *et seq.*, as amended by § 1711 of the Homeland Security Act of 2002, P.L. 107-296 and Title VII of the 2005 Safe, Accountable, Flexible and Efficient Transportation Equity Act—A Legacy for Users (SAFETEA-LU))

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 PHMSA (formerly the Research and Special Programs Administration).

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 the Secretary considers appropriate. Consistent with this 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. The 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, shippers and rail carriers were informed these regulations were “the first step in what may be a series of rulemakings to address the security of hazardous materials shipments.” 68 FR 14509, 14511 (March 25, 2003). PHMSA also noted “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 * * *” 68 FR 14511.

Under the Aviation and Transportation Security Act (ATSA), Public Law 107–71, 115 Stat. 597 (November 19, 2001), and delegated authority from the Secretary of Homeland Security (DHS), the Assistant Secretary of DHS for TSA has broad responsibility and authority for “security in all modes of transportation * * *”¹ ATSA authorizes TSA to take

immediate action to protect against threats to transportation security.

TSA’s authority over the security of transportation stems from several provisions of 49 U.S.C. 114. In executing its responsibilities and duties, TSA is specifically empowered to develop policies, strategies and plans for dealing with threats to transportation.² As part of its security mission, TSA is responsible for assessing intelligence and other information in order to identify individuals who pose a threat to transportation security and to coordinate countermeasures with other Federal agencies to address such threats.³ TSA also is to enforce security-related regulations and requirements,⁴ ensure the adequacy of security measures for the transportation of cargo,⁵ oversee the implementation and ensure the adequacy of security measures at transportation facilities,⁶ and carry out other appropriate duties relating to transportation security.⁷ TSA is charged with serving as the primary liaison for transportation security to the intelligence and law enforcement communities.⁸

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.

As is evident from the above discussion, DHS and DOT share responsibility for hazardous materials transportation security. The two departments consult and coordinate on security-related hazardous materials transportation requirements to ensure they are consistent with the overall security policy goals and objectives established by DHS and the regulated industry is not confronted with inconsistent security guidance or requirements promulgated by multiple agencies. To that end, 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, FRA and TSA signed an annex to address each agency’s roles and responsibilities for rail transportation security. 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.

Consistent with the principles outlined in the PHMSA–TSA annex, PHMSA and FRA collaborated with TSA to develop this NPRM. In today’s edition of the **Federal Register**, TSA is publishing an NPRM proposing additional security requirements for rail transportation. The TSA rulemaking would enhance security in the rail transportation mode by proposing requirements on freight and passenger railroads, rail transit systems, and on facilities with rail connections that ship, receive, or unload certain hazardous materials. The TSA rulemaking is intended to augment the proposals in this NPRM.

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. Hazardous materials are used for farming and medical applications, and in manufacturing, mining, and other industrial processes. Railroads carry over 1.7 million shipments of hazardous materials annually, including millions of tons of explosive, poisonous, corrosive, flammable and radioactive materials.

The need for hazardous materials to support essential services means transportation of highly 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, or significant environmental damage.

¹ See 49 U.S.C. 114(d). The TSA Assistant Secretary’s current authorities under ATSA have been delegated to him by the Secretary of Homeland Security. Under Section 403(2) of the Homeland Security Act of 2002, Public Law 107–296, 116 Stat. 2315 (2002) (HSA), all functions of TSA, including those of the Secretary of Transportation and the Undersecretary of Transportation of Security related to TSA, transferred to the Secretary of Homeland Security. Pursuant to DHS Delegation Number 7060.2., the Secretary delegated to the Assistant Secretary (then referred to as the Administrator of TSA), subject to the Secretary’s guidance and control, the authority vested in the Secretary with respect to TSA, including that in Section 403(2) of the HSA.

² 49 U.S.C. 114(f)(3).

³ 49 U.S.C. 114(f)(1)–(5), (h)(1)–(4).

⁴ 49 U.S.C. 114(f)(7).

⁵ 49 U.S.C. 114(f)(10).

⁶ 49 U.S.C. 114(f)(11).

⁷ 49 U.S.C. 114(f)(15).

⁸ 49 U.S.C. 114(f)(1) and (5).

The same characteristics of hazardous materials causing 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.

A primary safety and security concern related to the rail transportation of hazardous materials is 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. Also of major concern is the release or explosion of a rail car in 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—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 such 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.

II. Current Hazardous Materials Transportation Safety and Security Requirements

Subpart I to 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. Security awareness training is also required of all hazardous materials employees (hazmat employees), and in-depth security training is required of hazmat employees or persons required to develop and implement security plans.

The HMR require persons who offer for transportation or transport the

following hazardous materials to develop and implement security plans:

(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 this part;

(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.

Thus, in accordance with Subpart I of Part 172 of the HMR, rail carriers transporting any of the above materials in commerce must have developed and implemented security plans. 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 commensurate with the 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 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 to address 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 address security risks during transportation, including the

security of shipments stored temporarily en route to their destinations.

As indicated above, the HMR set forth general requirements for a security plan's components rather than a prescriptive list of specific items that must be included. The HMR set a performance standard providing offerors and carriers with the flexibility necessary to develop security plans addressing their individual circumstances and operational environment. Accordingly, each security plan will differ because it will be based on an offeror's or a 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.

Offerors and carriers in all modes were required to have security plans in place by September 25, 2003. New shippers and carriers must have security plans in place before they begin operations. To assist the industry in complying with the security plan requirements, PHMSA developed a security plan template to illustrate how risk management methodology could be used to identify areas in the transportation process where security procedures should be enhanced within the context of an overall risk management strategy. The security template is posted in the docket and on the PHMSA website at <http://hazmat.dot.gov/rmsef.htm>. In addition, a number of industry groups and associations have developed guidance material to assist their members in developing appropriate security plans.

With respect to delays in transportation, rail carriers are currently required to expedite the movement of hazardous materials shipments pursuant to § 174.14 of the HMR. 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 materials spend in transportation, thus minimizing the exposure of hazmat shipments to accidents, derailments, unintended releases, or tampering.

Apart from the requirements in § 174.14 to expedite the movement of hazardous materials, the HMR do not include specific routing requirements for rail hazmat shipments, e.g., to route shipments around or away from particular geographic areas. For example, in promulgating its March 2003 security regulations under Docket HM-232, PHMSA specifically required rail carriers to address en route security; however, PHMSA deliberately decided to leave the specifics of hazardous materials rail routing decisions, and other en route security matters covered by transportation security plans, to the judgment of rail carriers. Accordingly, the HM-232 security regulations preempt, among other things, any state, local, or tribal laws and regulations prescribing or restricting the routing of rail hazardous materials shipments. 49 U.S.C. 5125 and 20106. This proposed rule does not change this general approach to route-related requirements for rail hazardous materials shipments. Because the nation's largest rail carriers operate across many states, and the operating conditions in each location can vary greatly, this approach gives carriers the ability to follow a consistent, nationally-applicable Federal standard while also tailoring safety and security measures to the particular circumstances of individual locations.

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. The AAR issued the most recent version of this document, known as Circular OT-55-I, on August 26, 2005. The Circular details railroad operating practices for: (1) Designating trains as "key 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; (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 loaded tank cars; (6) assisting communities with emergency response training and information; (7) shipper notification

procedures; and (8) the handling of time-sensitive materials. These recommended practices were originally implemented by all of the Class 1 rail carriers operating in the United States; the most recent version of the circular also includes short-line railroads as signatories.

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. The proposals in this NPRM in part reflect the recommended practices mentioned above, which are already in wide use across the rail industry.

III. Request for Comments on the Transportation Security of TIH Materials

On August 16, 2004, PHMSA and TSA published a notice and request for comments on the need for enhanced security requirements for the rail transportation of hazardous materials posing a poison or toxic inhalation hazard (TIH materials). See 69 FR 50988. (Note that for purposes of the HMR, the terms "poison" and "toxic" are synonymous, as are the terms "PIH materials" and "TIH materials.") In the August notice, PHMSA and TSA sought comments on the feasibility of initiating specific security enhancements and the potential costs and benefits of doing so. Security measures addressed in the notice included improvements to security plans, modification of methods used to identify shipments, enhanced

requirements for temporary storage, strengthened tank car integrity, and implementation of tracking and communication systems. To date, we have received over 100 comments. We considered the comments concerning the need for improvements to current security plan requirements and revisions to regulations applicable to in-transit storage in developing this NPRM. These comments are discussed in detail in the following sections.

The comments to the August notice related to hazard communication, shipment identification, strengthened tank car integrity, and shipment tracking are not addressed in this rulemaking.

Additionally, on August 9-10, 2005, FRA participated in a meeting of the AAR Hazardous Materials Bureau of Explosives (BOE) Committee. At this meeting, FRA requested input from the rail industry regarding internal methods used to track and store information about TIH, explosive, and highway route controlled quantity radioactive materials. Comments regarding the definition of a route for the purpose of rail route analysis were taken into consideration in the development of this NPRM, as reflected by the use of line segment, an industry term. Other comments received related to specific measures, which a carrier should consider in performing a route analysis. A summary of this meeting can be found in the docket for this rulemaking.

A. Security Plan Improvements

In the August notice, PHMSA and TSA stated the two agencies are interested in determining how security plans required under the HMR might be improved, particularly as they relate to TIH materials. PHMSA and TSA asked commenters to provide information concerning the process by which their security plans were developed, including any problems encountered during the drafting or implementation phase, recommended "best practices," and any additional guidance or assistance as appropriate.

Commenters found the guidance provided by DOT and various industry associations to be quite useful for developing the security plans under the HMR. Commenters generally agree additional guidance material specific to the transportation of TIH materials could be helpful in enhancing the security of TIH materials; however, commenters generally oppose a requirement for the creation of separate security plans specific to TIH or other high-hazard materials, noting such materials are already covered by the HMR security plan requirements and

DOT and DHS have not shown the existing security plan requirements are inadequate. Most commenters who address this issue note that the success of DOT's current security plan requirement is its flexibility and encourage DOT and DHS to focus on performance-based criteria that are general in nature and provide flexibility to tailor transportation security plans and integrate them into overall security management. Commenters are nearly unanimous in opposition to a requirement for DOT and DHS to review and approve specific security plans, unless done on-site as part of a compliance or outreach review.

PHMSA and TSA agree with commenters who suggest compliance with the current security plan regulations could be improved with the development of additional guidance material or more specific requirements applicable to certain types of hazardous materials. As discussed in more detail below, in this NPRM, PHMSA is proposing clarifications and enhancements to the current security requirements as they apply to certain rail operations.

B. Temporary Storage

In the August notice, PHMSA and TSA discussed issues associated with the temporary storage of rail tank cars during transportation, including current regulatory requirements applicable to such storage. PHMSA and TSA requested comments concerning whether revisions to the temporary storage requirements applicable to rail cars transporting TIH materials are appropriate, including the impact such revisions could have on the costs to transport TIH materials and the impact on recipients and users (for example, towns and municipalities).

Many commenters agree the security of TIH rail shipments stored temporarily during transportation should be improved but have mixed views on how to achieve this objective. While some commenters support time limits on interim storage and prohibitions on the storage of TIH rail cars in densely populated areas, others suggest such restrictions would be infeasible because of supply chain issues, adverse economic impacts, and railroad operational and efficiency issues. One commenter notes "since the federal government does not limit the storage of TIH materials at customer facilities, it would be illogical for the federal government to limit railroad storage of TIH materials." Several commenters urge PHMSA and TSA to "use extra caution" before prohibiting the temporary storage of TIH materials,

suggesting a location in a densely populated area should not in itself be a reason to prohibit temporary storage. Rather than place limits on temporary storage, commenters suggest the security measures implemented at facilities at which such storage occurs should be based on risk assessments. Thus, for example, a facility in a densely populated area would be required to implement more stringent security requirements than a facility in a rural area. Specific measures suggested include perimeter fencing with controlled and limited access, enhanced lighting, remote monitoring, and frequent security patrols.

As discussed in more detail below, PHMSA, FRA, and TSA agree with commenters that the security of hazardous materials rail shipments stored temporarily during transportation should be improved, and PHMSA is proposing revisions in this NPRM. In addition, in its NPRM published in today's edition of the **Federal Register**, TSA is proposing additional security measures applicable to the storage of rail shipments of certain hazardous materials.

C. Shipment Tracking

The August notice indicated DOT and DHS are considering whether communication or tracking requirements should be required for rail shipments of TIH materials, such as satellite tracking of TIH rail cars and real-time monitoring of tank car or track conditions. In addition, the notice suggested DOT and DHS are considering reporting requirements in the event TIH shipments are not delivered within specified time periods.

The HMR currently do not include communication or tracking requirements for hazardous materials shipments. Offerors and transporters of TIH materials may elect to implement communication or tracking measures as part of security plans developed in accordance with subpart I of part 172 of the HMR, but such measures are not mandatory.

Commenters who addressed this issue are not convinced that tracking of rail shipments of TIH materials has a security benefit, instead suggesting the probability of a rail car being moved off the rail network is extremely remote and, further, tracking rail cars to determine if they are off course has no value from a security perspective. Commenters also express concerns about the reliability of tracking systems and the possibility that some systems could be compromised. Several commenters suggest that since the railroad industry already has the

capability to track rail cars, the existing system should be supplemented, not scrapped, and any mandated tracking requirements should provide for flexibility in choosing different technologies.

PHMSA, FRA, and TSA believe that most rail carriers have the capability to report on the locations of certain hazardous materials rail cars. We believe carriers should be required to report car location upon request of the government in certain limited situations, particularly during elevated threat conditions. PHMSA, FRA, and TSA are continuing to consider whether and to what extent rail carriers should be required to gather and report car location information, including the type of information to be collected, its format, and the costs of mandating such a requirement. In its NPRM, published in today's edition of the **Federal Register**, TSA is proposing to require rail carriers to report location and shipping information for certain hazardous materials to TSA upon request.

IV. Proposals in this NPRM

Based on comments received in response to the TIH notice and our experience in monitoring industry compliance with the HMR security plan requirements, we are proposing the following revisions to the security plan provisions:

- We propose to require rail carriers transporting certain types of hazardous materials to compile information and data on the commodities transported, including the transportation routes over which these commodities are transported.

- We propose to require rail carriers transporting certain types of hazardous materials to use the data they compile on commodities they transport to analyze the safety and security risks for the transportation routes used and one possible alternative route to the one used. Rail carriers would be required to utilize these analyses to transport these materials over the safest and most secure commercially practicable routes.

- We propose to require rail carriers to specifically address the security risks associated with shipments delayed in transit or temporarily stored in transit as part of their security plans.

- We propose to require rail carriers transporting certain types of hazardous materials to notify consignees if there is a significant unplanned delay affecting the delivery of the hazardous material.

- We propose to require rail carriers to work with shippers and consignees to minimize the time a rail car containing certain types of hazardous materials is

placed on track awaiting pick-up or delivery or transfer from one carrier to another.

- We propose to require rail carriers to notify storage facilities and consignees when rail cars containing certain types of hazardous materials are delivered to a storage or consignee facility.

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

These proposed revisions are explained in more detail in the following sections.

DOT's hazardous materials transportation safety program provides for a high degree of safety with respect to incidents involving unintentional releases of hazardous materials occurring during transportation. However, intentional misuse of hazardous materials was rarely considered when the regulations were developed. Since 9/11, we have come to realize that hazardous materials safety and security are inseparable. Many, if not most, of the requirements designed to enhance hazardous materials transportation safety, such as strong containers and clear hazard communication, enhance the security of hazardous materials shipments as well. Congress recognized this synergy and legislated its intent that "hazmat safety [was] to include hazmat security" when it enacted the Homeland Security Act of 2002 authorizing the Secretary of Transportation to "prescribe regulations for the safe transportation, including security, of hazardous material in intrastate, interstate, and foreign commerce." Safety and security must be considered together, particularly because a given security measure could have a potentially negative impact on overall transportation safety—routing and hazard communication are two obvious examples. Of course, the opposite can also be true—a safety policy or regulation could have a potentially negative impact on transportation security. PHMSA, FRA, and TSA are collaborating to ensure an appropriate balance between safety and security concerns.

The transport of highly hazardous materials is not limited to rail. Currently, significant amounts of highly hazardous materials are also transported by highway and vessel. The focus on rail is intended to be one phase in a multiphase effort by DOT and DHS to assess and secure the transportation of hazardous materials in all transportation modes to create an end-to-end secure

supply chain. In this regard, we note the Federal Motor Carrier Safety Administration has established criteria in 49 CFR Part 397 for routing certain highly hazardous materials.

A. Applicability to Certain Types of Hazardous Materials

PHMSA, FRA, and TSA have 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 enhanced security requirements proposed in this NPRM would apply is based on specific 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. The materials specified in this NPRM present the greatest rail transportation safety and security risks—because of the potential consequences associated with 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.

In this NPRM, we are proposing enhanced rail security requirements for rail transportation, with a particular focus on the following types 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 TIH material (poisonous by inhalation, as defined in 49 CFR 171.8); or
- (3) A highway-route controlled quantity of a Class 7 (radioactive) material.

As indicated above, the materials to be covered by this rulemaking represent those posing both a significant rail transportation safety and security risk. The following list provides a basic summary of the materials and critical vulnerabilities warranting inclusion in the proposed rule:

- *Division 1.1, 1.2, and 1.3 explosive materials.* These explosive materials present significant safety and security risks in transportation. 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 rail infrastructure and the surrounding area.

- *TIH materials.* TIH 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. TIH materials pose special risks during transportation because their uncontrolled release can endanger significant numbers of people. The January 6, 2005 train derailment in Graniteville, SC with subsequent release of chlorine sadly underscored this risk.

- *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.

In addition, we are seeking comment on whether the requirements proposed in this NPRM 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. For example, although most ammonium nitrate and ammonium nitrate mixtures are classified as oxidizers during transportation based on the normal transportation environment, tests have shown these materials have explosive properties under certain conditions. Rail cars carrying large quantities of these materials may pose significant security risks. Commenters are asked to identify which additional materials (if any) should be subject to enhanced safety or security requirements and discuss the types of requirements appropriate to address the risks posed by an intentional or accidental release of the product.

B. Commodity Data

In this NPRM, PHMSA is proposing to require rail carriers transporting any of the materials specified to compile commodity data on a calendar year basis. Each rail carrier must identify the line segments over which these commodities are transported. As the carrier deems appropriate, line segments may be aggregated into logical groupings, such as between major interchange points. The rail carrier selected line segment(s) will be considered the route, as discussed below, used for rail routing analysis. Within each route, the commodity data must identify the route location and

total number of shipments transported over the line segment(s). The data collected must identify the specified materials by UN identification number. However, given that UN identification numbers used to identify the specified materials may also represent materials not meeting the criteria for commodity data collection, an allowance is being made to allow data collection for all Class 7 and Division 6.1 materials transported over the route. Complete data on the shipments transported and the routes utilized should improve rail carriers' ability to develop and implement specific safety and security strategies.

As proposed in this NPRM, rail carriers would be required to complete the commodity data collection within 90 days after the end of each calendar year. For example, if a rail carrier is compiling data for calendar year 2006, it must be available for use and inspection by April 1, 2007. To provide carriers with flexibility in compiling and assessing the data, we are not proposing a specified format; however the data must be available in a format that could 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 would also be required to retain the data for two years, in either hard copy or electronic form, whichever is most efficient for the carrier.

With respect to information confidentiality and security concerns, data compiled under the proposed regulations would be considered SSI under regulations promulgated by DOT and DHS (49 CFR Parts 15 and 1520, respectively). SSI is subject to special handling rules and qualifying information is protected from public disclosure under those regulations if copies of any data are kept or maintained by DOT. See 69 FR 28066 (May 18, 2004) and 70 FR 1379 (January 7, 2005). Carriers would be required to ensure any information developed to comply with the requirements proposed in this NPRM is properly marked and handled in accordance with the SSI regulations. Further, information maintained by DOT may be shared with DHS. In such cases, SSI protections will continue to apply.

C. Route Analyses

In this NPRM, PHMSA is proposing to require rail carriers to use the data

compilation described above to include in their security plans an analysis of the rail transportation routes over which the specified materials are transported. As proposed, carriers will be required to analyze the specific safety and security risks for routes identified in the commodity data collection. Route analyses will 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 is included in proposed Appendix D to Subpart I of Part 172. Consistent with the SSI restrictions set forth in 49 CFR Parts 15 and 1520, TSA and FRA will provide appropriate guidance to rail carriers on how to properly weigh and evaluate the factors necessary for performing the security part of the risk analysis, and will include threat scenarios to aid in this route analysis.

We invite comments to address how frequently route analyses should be updated and revised. This NPRM proposes to require carriers to re-examine route analyses on an annual basis. We are seeking comments on whether annual analyses are necessary and whether the analyses should be conducted more frequently or less frequently. For example, the regulations could require carriers to revise and update route analyses only when necessary to account for changes in the way a carrier operates, changes to the routes utilized to transport hazardous materials, or in response to specific threat information.

We anticipate carriers will first analyze the rail transportation route over which each specified commodity normally travels in the regular course of business. As discussed below, we are also proposing to require carriers to then identify and analyze the next most practicable alternative route, if available, over which they have authority to operate, using the same factors. We expect the alternative route analyzed will originate and terminate at the same points as the original route.

We have given careful consideration to the question of how to define a "rail transportation route" for the purpose of the analysis proposed in this NPRM. We propose 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. The parameters set out for "key routes" in AAR Circular OT-55-I are an excellent starting point for railroads to use in performing route analyses.

In addition to the routes normally and regularly used by rail carriers to transport these designated hazardous materials, we are proposing to require carriers to analyze and assess the feasibility of available alternative routes over which they have authority to operate. For each primary route, one commercially practicable alternative route must be identified and analyzed using the Rail Risk Analysis Factors of proposed Appendix D to Part 172. We recognize in many cases, the only alternative route in a particular area may be on another carrier's right-of-way. A rail carrier would not be obligated to analyze an alternative route over which it has no authority to operate. We also recognize, in some cases, no alternative route will be available; therefore, no such 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. Where an alternative route over which the carrier has authority to operate does exist, 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 that could be implemented, and the economic effects of utilizing the

alternative route. As used in this proposal, "commercially practicable" means that the route may be utilized by the railroad within the limits of the railroads particular operating constraints and, further, that the route 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 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 their other business decisions.

In the rail operating environment, it is possible a carrier may transport the specified material over a route where the carrier has trackage rights, but does not own or have control over the track and associated infrastructure. Many of the factors in Appendix D relate to the physical characteristics of the track. In completing the route analyses required by this proposed rule, the carrier may identify specific measures to address risks 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 carrier to work with the owner of the track to evaluate the vulnerabilities and identify measures to effect mitigation of the risks. If measures required by this proposed rule cannot be implemented because another entity refuses or fails to cooperate, the carrier must notify FRA. As stated in the Enforcement section of this preamble, FRA retains the authority to require use of an alternative route until such time as identified deficiencies are mitigated or corrected.

For each primary route, one alternative route must be identified and analyzed, if available as discussed above. As with the primary route analysis, we expect the end result to be a clear picture of the commercially 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 route should, in the end, clearly indicate the reasonableness, appropriateness, and feasibility, including economic feasibility, of using the alternative. We expect a complete alternative route analysis will indicate such things as any actual use of 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 identified to be the safest and most secure commercially 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 commercially practicable route with the overall fewest combined safety and security risks, 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 to mitigate the 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 likely have already catalogued possible actions to mitigate such risks.

In the evaluation of alternative routes, 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.

To assist rail carriers in performing these analyses of rail transportation routes and alternative routes, PHMSA is proposing to add a new Appendix D to

Subpart 172. This appendix will lay 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 discussed in this proposed 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 significant changes in traffic density, new customers offering or receiving the specified hazardous materials, and significant operational changes. The scope of the analyses in subsequent years is expected to be more limited than the analyses conducted in the first year. As proposed in this NPRM, each carrier would be required to perform a system-wide analysis every five years to include a comprehensive review of all changes occurring during the intervening period. The system-wide review would include an analysis of all primary routes and a reevaluation of the corresponding practicable alternative routes.

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. Uniformity is necessary when a performance standard is used. We have tried to balance these two competing interests by establishing a requirement for the assessment criteria to be used, while allowing rail carriers to choose the methodology for conducting the analysis. We believe the proposed criteria will improve the quality of risk assessments conducted per this subpart. We solicit comment on the proposal's balancing of flexibility and uniformity in both risk assessment and route selection.

Regardless of 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 quantitative to the extent possible consistent with available data;
- 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. As proposed in this NPRM, each rail carrier's security plan would be required to 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 security plan requirements currently required, our goal with this proposal 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 its routes provide the overall fewest safety and security risks.

Although not a terrorist incident, the January 6, 2005, railroad accident and release of chlorine in Graniteville, SC, added to the growing concern about terrorism and prompted the development of the Freight Rail Security Program. This program is an innovative public-private partnership dedicated to assessing policies and technologies for enhancing security throughout the freight rail industry. One product of this partnership is the development of the Rail Corridor Risk Management Tool (RCRMT). The RCRMT will leverage existing technologies and accepted risk management practices where feasible, and incorporate new technologies and elements as appropriate. A second project of the Freight Rail Security Program is the Rail Corridor Hazmat Response and Recovery Tool (RCHRRT), which will integrate geographical information and risk modeling. The RCHRRT is being developed through a grant to the Railroad Research Foundation and will include participation from the rail industry. When fully developed, these tools will provide a formal methodology to assist the rail carriers in complying with the enhanced safety and security planning requirements of this proposed rulemaking.

D. Route Selection

The overarching goal of this NPRM is to ensure each route used for the transport of the specified hazardous materials is the one presenting the fewest overall safety and security risks. PHMSA is proposing a systematic process for rail carriers to: (1) Identify the routes currently in use by the rail carrier; (2) perform safety and security risk analyses of those primary routes; (3) identify and analyze commercially practicable alternative routes; and (4) make future route selections based on the results of the completed analyses. A rail carrier must evaluate its analyses and any measures put in place to mitigate identified vulnerabilities resulting in a selection of practicable routes presenting the fewest safety and security risks. The final step of this process is for the rail carrier to ensure the specified materials are moving on the safest and most secure commercially practicable routes. We expect for larger rail carriers, who have multiple routes available, the overall result of the route

selection process will be a suite of routes addressing the overall safety and security risks of the materials in this rule. As discussed above, development of a suite of routes, where practicable, may provide carriers the flexibility to manage changing localized conditions, such as short-term changes in threat condition or track outage due to incidents or derailment, within their existing route selections.

PHMSA has proposed a 90-day window to compile commodity data and identify currently used routes. In the example given previously, for calendar year 2006, the commodity data would be available by April 1, 2007. Once the data are available, PHMSA recognizes it will take some time, especially in the first year of compliance, to complete the safety and security analyses of all primary and alternative routes. Moreover, the time necessary to complete the analyses will vary from carrier to carrier depending on the number of routes to be assessed and the nature of the safety and security issues identified for each route. We expect each rail carrier will build on the foundation of its existing security plan and the parameters already outlined in Circular OT-55-I. As the safety and security analyses are completed, the carrier must document its review and route selection decisions. 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. Once a route has been documented as presenting the lowest overall safety and security risk, the rail carrier must implement use of that route. If a carrier completes this process in July of a given analysis year, for example, then routing changes must be implemented as soon as possible. In all cases, the analyses and any routing changes resulting from the analyses must be completed and implemented by January 1 of the following year.

E. Storage, Delays in Transit, and Notification

A difficult area to address in rail transportation is the safety and security of materials en route to their final destinations. Hazardous materials shipments may be delayed for any number of reasons: derailments, track repairs, cargo backlogs at ports, changes in security alert levels due to terror threats, or the presence of large events near key rail routes. Any or all of these may be reasons for shipments to be put on hold, stored, or delayed in transit. The resulting temporary storage in transport may encompass a wide variety of places, situations, and timeframes. Rail cars hauling hazardous materials may be placed on yard tracks with hundreds of other rail cars near densely populated urban areas, or a few cars may be placed on sidings in rural, less populated areas. Yards may not be fenced and tracks may traverse a number of public streets with at-grade crossings; thus, it is logistically very difficult to monitor each and every car containing hazardous materials at all times. Each in-transit storage scenario has its own set of individual risks and hazards.

The HMR require offerors and carriers to address the en route security of hazardous materials, including hazardous materials stored incidental to movement. Thus, rail offerors and carriers are already required to address the security of in-transit storage facilities in their security plans. To emphasize this requirement, in this NPRM we are proposing to require rail carriers of the specified hazardous materials to include in security plans measures to limit access to materials stored or delayed in transit, measures to mitigate the risk to population centers associated with materials stored or delayed in transit, and measures to be taken in the event of escalating threat levels. Further, we are proposing to require rail carriers to inform a facility at which a rail car will be stored incidental to movement when the rail

car is delivered to the facility so the facility can implement appropriate security measures. We are also proposing a similar requirement for rail carriers to inform the consignee facility when the rail car is delivered. We propose to require such notification as soon as practicable but in no case later than six hours after delivery. We invite commenters to address this proposed timeframe, particularly how such a requirement should be implemented for deliveries that occur outside of normal business hours.

These procedures for notifying the interim storage facility and consignee of rail car delivery should ensure a positive transfer of responsibility and security for the car between the rail carrier and facility when the physical custody of the car changes. Carriers may want to consider what measures are currently in place for notification and how these provide confirmation of the facility's acceptance of the shipment. In addition, we are proposing to require rail carriers to work with shippers and consignees to minimize the time a rail car is stored incidental to movement to the extent practicable.

In addition, PHMSA is proposing to require the carrier to notify the consignee if there is a significant unplanned delay during transportation of one of the hazardous materials specified in this proposed rulemaking, 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 specified in this NPRM do not inadvertently wait in transit.

A significant delay would be 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." 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 AAR Circular OT-55-I contains operating practices the rail industry has already implemented for certain time-sensitive shipments. PHMSA's proposed requirement 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.⁹ Because of the variety of materials covered by this proposed rulemaking, PHMSA has not designated specific delivery timeframe guidelines for these materials.

With respect to notification to consignees in the event of a shipment delay, we have specified such notification to be made by a method acceptable to both carrier and consignee. We are aware many rail carriers have in place electronic systems where consignees may look up and track their expected rail shipments. This is an acceptable method of notification, as are e-mail, facsimile, or telephone. The important aspect of the notification is that both carrier and consignee agree upon the method.

F. Pre-Trip Security Inspections

The HMR currently require rail carriers to inspect each rail car containing hazardous materials at ground level. From a safety perspective, the inspections are intended to address required markings, labels, placards, securement of closures, and leakage. Safety-related inspections currently required under the HMR do not specifically address the possibility a terrorist could introduce a foreign object on the tank car, the most pernicious being an IED. PHMSA proposes in this NPRM to increase the scope of the 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

⁹ 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).

power supply, a switch or timer, and a detonator or initiator.

To guard against the possibility 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 are proposing 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 any item that does not belong, suspicious items, or IEDs. TSA will provide guidance to rail carriers to train employees on identifying IEDs and signs of tampering. 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 has not been compromised before accepting the rail car for further movement.

The existing security plan requirements in the HMR specify each carrier's plan must include measures to address unauthorized access and en route security. While not explicitly stated in the regulatory text, it is expected these sections provide guidance to carrier personnel for the actions to be taken in the event of suspected incident involving unauthorized access or a security breach. The rail industry, in coordination with the AAR, has worked closely with Federal, State and local officials to improve the security of rail transportation. However, each carrier should review its existing security plan to ensure the measures are adequate to facilitate notification of railroad police, security or management personnel, as appropriate, in the event a suspicious item is identified during inspection. As evidenced by the coordinated attacks of September 11, 2001, prompt identification of a terrorist event may be critical to responding to and potentially minimizing the impacts of the event.

G. Enforcement

As indicated above, DHS and DOT share responsibility for hazardous materials transportation security. PHMSA and FRA collaborated with TSA in developing this NRPM and will continue to work closely with TSA throughout the rulemaking process.

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.

TSA's authority with respect to transportation security, including hazardous materials security, is comprehensive and supported with specific powers to assess threats to security; monitor the state of awareness and readiness throughout the rail sector; determine the adequacy of an owner or operator's security measures; and identify security gaps.

With respect to enforcement of the proposed security requirements in this NPRM, FRA plans to work closely with TSA to develop a coordinated enforcement strategy to include both FRA and TSA inspection personnel. If in the course of an inspection of a railroad carrier, TSA identifies evidence of non-compliance with a DOT security regulation, TSA would provide the information to FRA and PHMSA for appropriate action. In this regard, TSA would not directly enforce DOT security rules, and would not initiate safety inspections. Consistent 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. Thus, DHS and DOT will leverage knowledge and expertise and coordinate security assessments and inspection and compliance actions by their respective inspectors to minimize disruption to railroad carriers being inspected; maximize the utilization of inspector resources to avoid duplication of effort; ensure consistent information is provided by both parties to the rail industry on security matters and safety matters with security implications; and ensure consistent enforcement action is taken for violations of Federal laws and regulations, and that the appropriate enforcement tools are used to address security-related problems.

Generally, inspection personnel will not collect or retain security plans or the route selection documentation required by this proposed rule. However, inspection personnel may periodically perform rail carrier compliance inspections. In the event inspection personnel identify a need to collect a copy of the security plan or route review and selection documentation, all applicable laws and regulations, including the SSI regulations and Freedom of Information Act

exemptions, will be reviewed to determine whether the information can be withheld from public release.

We are not proposing to implement 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. Inspectors will review security plans, route analyses, and route choices for compliance with applicable regulations. Upon completion of a compliance inspection, 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. Based on evidence indicating a rail carrier has not performed a reasoned good-faith analysis, carefully considering all available information including the safety and security risk analysis factors in the proposed Appendix D to Part 172, to choose the safest, most secure practicable route, the FRA Associate Administrator for Safety, in consultation with TSA, may require the railroad to use an alternate route until such time as the identified deficiencies are satisfactorily addressed. However, FRA would 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, we would expect to mandate route changes only for the most exigent circumstances. FRA will 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.

V. Regulatory Analyses and Notices

A. Statutory/Legal Authority for This Rulemaking

This NPRM 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.

B. Executive Order 12866 and DOT Regulatory Policies and Procedures

This proposed 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 proposed 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 NPRM 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 NPRM 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 result of their route analyses. Because the NPRM 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 in the proposal, 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 Association of American Railroads (AAR) 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 widespread installation of the more technology-driven alternatives could take several years. PHMSA’s previous security rule requires the railroads to

have a security plan that includes en route security. This existing regulatory requirement, coupled with the industry’s generally risk-averse nature, is driving the 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 proposal will not be significant. We note in this regard that safety and security measures are intertwined and often work hand in hand to complement each other; therefore, separating security costs from safety costs is not feasible. Overall transportation costs should not substantially increase because of this rule.

Estimating the security benefits of the proposed new requirements is challenging. Accident causation probabilities based on accident histories can be estimated 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 hazardous materials in transportation are a possible target of terrorism or sabotage. The probability 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 where 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. However, the fact an event is infrequent or has never occurred does not diminish the risk or possibility of such an event occurring.

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 clarifications requires the exercise of judgment and necessarily includes subjective elements.

The major benefits expected to result from the provisions of this NPRM 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 9 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. These proposals are intended to reduce the safety and security risks associated with the transportation of the specified hazardous materials. If the measures proposed in this NPRM 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 proposed 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 proposed 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.

In its March 25, 2003 final rule in Docket No. HM-232, PHMSA specifically required rail carriers to address the en route security of hazardous materials during transportation. We decided that the specifics of routing rail shipments of hazardous materials, a component of en route security, should be left to the judgment of rail carriers. See 68 FR at 14513, 14516. We have concluded that, under Federal hazardous material transportation law (49 U.S.C. 5125), the Federal Rail Safety Act (49 U.S.C. 20106), and the Commerce Clause of the U.S. Constitution, PHMSA’s decision to leave the routing of hazardous materials shipments to the judgment of rail carriers preempts all States, their political subdivisions, and Indian tribes from prescribing or restricting routes for rail shipments of hazardous materials. See *CSX Transportation, Inc. v. Williams*, 406 F.3d 667 (D.C. Cir. 2005). This proposed rule would require rail carriers to consider certain factors in selecting routes for transporting shipments of hazardous materials, but it does not change PHMSA’s basic approach in HM-232 of leaving ultimate hazardous materials routing decisions to the rail carriers. Accordingly, this

proposed rule would have the same preemptive effect upon States, political subdivisions, or Indian tribes, and the consultation and funding requirements of Executive Orders 13132 and 13175 do not apply. In view of the high level of interest in the issue, we are including a statement in the proposed text of the regulation to highlight the preemptive effect of the provisions of this proposed rule.

Nonetheless, we will invite interested States, political subdivisions, and Indian tribes to submit comments on this proposed rule and consult directly with PHMSA, through invitations to organizations such as 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, and directly to those jurisdictions which have already expressed concerns about routes of rail shipments of hazardous materials.

D. Executive Order 13175

We analyzed this proposed rule in accordance with the principles and criteria contained in Executive Order 13175 ("Consultation and Coordination with Indian Tribal Governments"). Because this proposed 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, and a tribal summary impact statement is not required.

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

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) 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 NPRM on small entities.

Not all small railroads will be required to comply with the provisions of this NPRM. 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 NPRM. 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 provisions of this NPRM amount to between 0.01% and 0.09% of a small railroad's annual operating revenue.

This NPRM 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 there are situations in which their relative interests may 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 extremely rare for small railroads to compete with each other. As mentioned above, small railroads generally serve smaller, lower density markets and customers. They exist, and often thrive, doing business in markets where there is not enough traffic to attract the larger carriers which are designed to handle large volumes over distance at a profit. As there is usually not enough traffic to attract service by a large carrier, there is also not enough traffic to sustain more than one smaller carrier. In combination with the huge barriers to entry in the railroad industry (need to own right-of-way, build track, purchase fleet, etc.), small railroads rarely find themselves in competition with each other. Thus, even to the extent the rule may have an economic

impact, it should have no impact on the intramodal competitive position of small railroads.

Based on the foregoing discussion and the more detailed analysis in the regulatory evaluation for this NPRM, I certify that the provisions of this NPRM, if adopted, will not have a significant impact on a substantial number of small entities.

We encourage small entities potentially affected by this rulemaking to participate in the public comment process by submitting comments on this assessment or this rulemaking. Comments will be addressed in the final document.

We developed this proposed 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 to ensure potential impacts of draft rules on small entities are properly considered.

F. Paperwork Reduction Act

PHMSA currently has an approved information collection under OMB Control No. 2137-0612, "Hazardous Materials Security Plans" expiring April 30, 2006. We are currently in the process of developing a request for renewal of this information collection approval for submission to OMB. We estimate an additional increase in burden as a result of this proposed rulemaking.

Section 1320.8(d), Title 5, Code of Federal Regulations requires the PHMSA provide interested members of the public and affected agencies an opportunity to comment on information collection and recordkeeping requests. This notice identifies proposed new requirements to the current information collection under OMB Control No. 2137-0612. We estimate there will be a small increase in burden resulting from the new proposed requirements regarding rail shipments of hazardous materials in this rulemaking. PHMSA will submit this revised information collection to OMB for approval based on the requirements in this proposed rule. We estimate the additional information collection burden as proposed under this rulemaking is 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.

PHMSA specifically requests comments on the information collection and recordkeeping burden associated with developing, implementing, and maintaining these requirements for approval under this proposed rule.

Address written comments to the Dockets Unit as identified in the **ADDRESSES** section of this rulemaking. We must receive your comments prior to the close of the comment period identified in the **DATES** section of this rulemaking. Under the Paperwork Reduction Act of 1995, no person is required to respond to an information collection unless it displays a valid OMB control number. If these proposed requirements are adopted in a final rule with any revisions, PHMSA will resubmit any revised information collection and recordkeeping requirements to the OMB for re-approval.

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 proposed 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 of 1969 (NEPA), as amended (42 U.S.C. 4321–4347), requires Federal agencies to consider the consequences of major Federal actions and prepare a detailed statement on actions significantly affecting the quality of the human environment.

The hazardous materials regulatory system is a risk management system that is prevention-oriented and focused on identifying a hazard and reducing the probability and quantity of a hazardous materials release. Hazardous materials are categorized by hazard analysis and

experience into hazard classes and packing groups. The regulations require each shipper to class a material in accordance with these hazard classes and packing groups; the process of classifying a hazardous material is itself a form of hazard analysis. Further, the regulations require the shipper to communicate the material's hazards by identifying the hazard class, packing group, and proper shipping name on shipping papers and with labels on packages and placards on transport vehicles. Thus, the shipping paper, labels, and placards communicate the most significant findings of the shipper's hazard analysis. A hazardous material is assigned to one of three packing groups based upon its degree of hazard, from a high hazard Packing Group I material to a low hazard Packing Group III material. The quality, damage resistance, and performance standards for the packagings authorized for the hazardous materials in each packing group are appropriate for the hazards of the material transported. The current security plan requirements in Subpart I of Part 172 of the HMR are also based on a prevention-oriented risk management approach focused on identifying security risks and vulnerabilities and implementing measures to mitigate the identified risks and vulnerabilities.

Hazardous materials are transported by aircraft, vessel, rail, and highway. The potential for environmental damage or contamination exists when packages of hazardous materials are involved in transportation accidents. Railroads carry over 1.7 million shipments of hazardous materials annually, including millions of tons of explosive, poisonous, corrosive, flammable and radioactive materials. The need for hazardous materials to support essential services means transportation of highly 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, or significant environmental damage. The ecosystems that could be affected by a hazardous materials release during transportation include air, water, soil, and ecological resources (for example, wildlife habitats). The adverse environmental impacts associated with releases of most hazardous materials are short-term impacts that can be greatly reduced or eliminated through prompt clean-up of the accident scene. To address the safety and environmental risks associated with the transportation of hazardous materials by rail, rail tank

cars must conform to rigorous design, manufacturing, and requalification requirements. The result is that tank cars are robust packagings, equipped with features such as shelf couplers, head shields, thermal insulation, and bottom discontinuity protection that are designed to ensure that a tank car involved in an accident will survive the accident intact.

In this NPRM, we are proposing to adopt regulations to enhance the safety and security of certain hazardous materials transported by rail. Specifically, we are proposing to require rail carriers to make routing decisions for specified shipments of hazardous materials based on an analysis of both the safety and security risks of alternative routing options. Requiring rail carriers to take safety and security issues into account when making hazardous materials routing decisions will reduce the possibility of an accidental or intentional release into the environment and consequent environmental damage. If adopted, we expect the requirements proposed in this NPRM to result in the selection by rail carriers of safer, more secure routes, the use of which would reduce the likelihood of a release of hazardous materials into the environment. Therefore, we have preliminarily determined that there are no significant environmental impacts associated with the proposals in this NPRM and that to the extent there might be any environmental impacts, they would be beneficial given the reduced likelihood of a hazardous materials release.

We invite commenters to address the possible beneficial and/or adverse environmental impacts of the proposals in this NPRM. We will consider comments received in response to this NPRM in our assessment of the environmental impacts of a final rule on this issue.

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://dms.dot.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 propose to amend 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.

Subpart I—Safety and Security Plans

2. Revise the title of subpart I of part 172 to read as set forth above.

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 must develop and implement 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; or

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

(b) *Commodity data.* No later than 90 days after the end of each calendar year, a rail carrier must compile commodity data, as follows:

(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 and Division 6.1 materials transported

instead of only the highway route controlled quantity or 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. The safety and security risks present must be analyzed for the route and railroad facilities along the route.

(d) *Alternative route analysis.* For each calendar year, a rail carrier must identify the next most commercially practicable route 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 route 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. The written alternative route analysis must also consider:

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

(2) Comparison of the safety and security risks of the alternative to the primary rail transportation route;

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

(4) Potential economic effects of using the alternative route.

(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 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 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 (e.g., the analyses required for calendar year 2008 must be completed by the end of 2009).

(2) At least once every five years, the 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, or 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 five-year period.

(3) 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) *Limitations on actions by States, local governments, and Indian tribes.* Unless PHMSA grants a waiver of preemption under 49 U.S.C. 5125(e), a State, political subdivision of a State, or Indian tribe may not designate, limit, or prohibit the use of any rail line (other than a rail line owned by the State, political subdivision, or Indian tribe) for the transportation of hazardous material, including but not limited to the materials specified in paragraph (a) of this section.

(h) *Storage, delays in transit, and notification.* For the materials specified in paragraph (a) of this section, each rail carrier must ensure the safety and security plan it develops and implements in accordance with this subpart includes all of the following:

(1) A procedure for consulting with offerors and consignees to minimize to the extent practicable the period of time during which the material is stored incidental to movement (see § 171.8 of this subchapter).

(2) A procedure for informing the operator of the facility at which the material will be stored incidental to movement that the rail car containing the material has been delivered to the facility. Such notification should occur as soon as practicable, but in no case later than 6 hours after delivery.

(3) Measures to limit unauthorized access to the materials during storage or delays in transit.

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

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

(6) 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. Notification should be made by a method acceptable to both carrier and consignee. 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.

(7) A procedure to inform the consignee that the material has been delivered to its facility. Such notification should occur as soon as practicable, but in no case later than 6 hours after delivery.

(i) *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 of it, that is accessible at or through its principal place of business and must make the record available, upon request, to an authorized official of the Department of Transportation at reasonable times and locations. 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 (b), (c), (d), (e), and (f) of this section to persons with a need-to-know, as described in parts 15 and 1520 of this title.

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

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

Appendix D to Part 172—RAIL RISK ANALYSIS FACTORS

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.

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 include, but are not limited to, classification and switching yards, and sidings or other locations where storage in-transit occurs. Each rail carrier will act in good faith to communicate with its shippers, consignees, and interlining partners to ensure the safety and security of shipments during all stages of transportation.

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.

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;
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 (the Transportation Security Administration and Federal Railroad Administration will provide non-public threat scenarios for carrier use in the development of the route assessment);
22. Measures in place to address apparent safety and security risks;
23. Availability of 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

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

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

5. 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 of 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 may have been compromised.

(c) If a carrier determines that a rail car does not conform to the safety requirements of this subchapter, the carrier may not forward or transport the rail car until the deficiencies are rectified 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 actions to ensure the security of the rail car and its contents has not been compromised before accepting the rail car for further movement. If the carrier determines 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 December 12, 2006, under the authority delegated in 49 CFR Part 106.

Robert A. McGuire,

Associate Administrator for Hazardous Materials Safety.

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