

DEPARTMENT OF TRANSPORTATION**Pipeline and Hazardous Materials
Safety Administration****49 CFR Part 172**

[Docket No. PHMSA-06-25885 (HM-232F)]

RIN 2137-AE22

**Hazardous Materials: Risk-Based
Adjustment of Transportation Security
Plan Requirements****AGENCY:** Pipeline and Hazardous
Materials Safety Administration
(PHMSA), DOT.**ACTION:** Notice of proposed rulemaking
(NPRM).

SUMMARY: PHMSA, in consultation with the Transportation Safety Administration (TSA) of the Department of Homeland Security (DHS), is proposing to modify its current security plan requirements governing the commercial transportation of hazardous materials by air, rail, vessel, and highway. Based on an evaluation of the security threats associated with specific types and quantities of hazardous materials, the proposed rule would narrow the list of materials subject to security plan requirements and reduce associated regulatory costs and paperwork burden. The proposed rule also would clarify certain requirements related to security planning, training, and documentation and incorporate and build on recent international standards governing hazardous materials security.

DATES: Submit comments by November 10, 2008.**ADDRESSES:** You may submit comments identified by the docket number (PHMSA-06-25885) by any of the following methods:

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

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

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

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

For more detailed instruction on comment submission, see the

SUPPLEMENTARY INFORMATION section.**FOR FURTHER INFORMATION CONTACT:**

Susan Gorsky or Ben Supko, Office of Hazardous Materials Standards, Pipeline and Hazardous Materials Safety Administration, 202-366-8553.

SUPPLEMENTARY INFORMATION:**Comment Submission**

Instructions: Identify the agency and docket number (PHMSA-06-25885) at the beginning of your submission. Except for comments that receive confidential treatment, all comments received will be posted without change to the Federal Docket Management System (FDMS), including any personal information provided. Detailed instructions for requesting confidential treatment are provided below, under the Privacy Act heading.

Docket: For access to the dockets to read background documents or comments received, go to <http://www.regulations.gov> or DOT's Docket Operations Office (see **ADDRESSES**).

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 (Volume 65, Number 70; Pages 19477-78), which may also be found at <http://www.regulations.gov>.

You may request confidential treatment of comments or portions of comments under the procedures set forth in 49 CFR part 105. While all comments should be sent to the FDMS, PHMSA will consider separately and not place in the public docket those comments or portions of comments PHMSA determines to include trade secrets, other confidential commercial information, or sensitive security information (SSI). 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 FDMS both the original document and a second copy of the original document with the confidential information redacted; and (3) explain why the information is confidential (as a trade secret, other 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 the handling of SSI. See 49 CFR 1520.9 and 49 CFR 15.9, Restrictions on the disclosure of sensitive security information. Those regulations restrict the disclosure of SSI to those with a need to know and set forth specific requirements for marking, packaging, and disposing of documents containing SSI. Note 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 may perform concurrent reviews on requests for designations as SSI.

After reviewing your request for confidentiality and the information provided, PHMSA will determine whether the information should be treated as confidential under applicable laws and regulations. PHMSA will notify you of the decision to grant or deny confidential treatment. If PHMSA denies your request, you will be provided an opportunity to request reconsideration before the information is publicly disclosed. PHMSA will reconsider its decision to deny confidentiality based on your response.

To further guard against disclosure of SSI, PHMSA will review all submissions, whether or not they are identified as confidential, prior to their posting on the public docket. PHMSA will notify you if we determine that information in your submission should not be disclosed to the public. If you have any questions concerning the procedures for determining confidentiality or security sensitivity, you may call one of the individuals listed below.

I. Background**A. Current DOT Security Requirements**

The Hazardous Materials Regulations (HMR; 49 CFR parts 171-180) require persons who offer for transportation or transport certain hazardous materials in commerce to develop and implement security plans. The security plan requirements in subpart I of part 172 of the HMR apply to persons who offer for transportation or transport:

- (1) A highway-route controlled quantity of a Class 7 (radioactive) material;

- (2) More than 25 kg (55 lbs.) of a Division 1.1, 1.2, or 1.3 (explosive) material;

- (3) More than 1 L (1.06 qt.) per package of a material poisonous by inhalation in Hazard Zone A;

(4) A shipment in a bulk packaging with a capacity equal to or greater than 13,248 L (3,500 gallons) for liquids or gases or greater 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 lbs.) gross weight or more of one class of hazardous materials for which placarding is required;

(6) A select agent or toxin regulated by the Centers for Disease Control and Prevention under 42 CFR part 73 or a select agent or toxin regulated by the U.S. Department of Agriculture under 9 CFR part 121; or

(7) A shipment that requires placarding under subpart F of part 172 of the HMR.

A 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 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. For 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. For 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. For 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 environments. 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.

B. International Transportation Security Standards

The United Nations Model Regulations on the Transport of Dangerous Goods (UN Recommendations) identify high

consequence dangerous goods for which enhanced security measures are recommended. The recommended security measures include security plans and are similar to the requirements in subpart I of part 172 of the HMR. The UN Recommendations define high consequence dangerous goods as materials with the "potential for mis-use in a terrorist incident and which may, as a result, produce serious consequences such as mass casualties or mass destruction." The UN Recommendations list the following materials as high consequence dangerous goods:

- (1) Division 1.1 explosives;
- (2) Division 1.2 explosives;
- (3) Division 1.3 compatibility group C explosives;
- (4) Division 1.5 explosives;
- (5) Bulk shipments of Division 2.1 flammable gases;
- (6) Division 2.3 toxic gases (excluding aerosols);
- (7) Bulk shipments of Class 3 flammable liquids in PG I or II;
- (8) Class 3 and Division 4.1 desensitized explosives;
- (9) Bulk shipments of Division 4.2 PG I materials;
- (10) Bulk shipments of Division 4.3 PG I materials;
- (11) Bulk shipments of Division 5.1 PG I oxidizing liquids;
- (12) Bulk shipments of Division 5.1 perchlorates, ammonium nitrate and ammonium nitrate fertilizers;
- (13) Division 6.1 PG I toxic materials;
- (14) Division 6.2 infectious substances of Category A (UN2814 and 2900);
- (15) Class 7 radioactive materials in quantities greater than 3000 A₁ (special form) or 3000 A₂, as applicable, in Type B(U) or Type B(M) or Type (C) packages; and
- (16) Bulk shipments of Class 8 PG I materials.

For purposes of the security provisions, the UN defines "in bulk" to mean quantities greater than 3,000 kg (6,614 lbs.) or 3,000 liters (793 gallons) in portable tanks or bulk containers.

C. Petitions for Rulemaking

PHMSA has received two petitions for rulemaking requesting a review and reevaluation of the current HMR security plan requirements. The Council on Safe Transportation of Hazardous Articles (COSTHA) petitioned PHMSA (P-1447) to reevaluate the security requirements in subpart I of part 172 of the HMR to "enhance international harmonization and to better utilize available resources in enhancing hazardous materials transportation security." COSTHA notes that the list of hazardous materials subject to the

security plan requirements differs from the list of high consequence dangerous goods in the UN Recommendations. COSTHA requests that PHMSA adopt the same criteria as the UN Recommendations for materials that are subject to the security plan requirements or, as an alternative, eliminate the security plan requirement for quantities of hazardous materials currently subject to placarding under subpart F of part 172. COSTHA cites several examples of hazardous materials (e.g., automobile batteries, inks, paint, flavoring extracts) that, based on hazard class and quantity are placarded and subject the security plan requirements under the HMR, but not covered by the list of high consequence dangerous goods in the UN Recommendations. COSTHA acknowledges that these materials pose certain risks in transportation, but contends it is highly unlikely a terrorist would use these materials to perpetrate a terrorist attack.

Similarly, the American Trucking Associations (ATA) petitioned PHMSA (P-1466) to designate a subset of "security sensitive hazardous materials" that would trigger security plan requirements. The ATA urges PHMSA to use the list of materials and quantities subject to the Federal Motor Carrier Safety Administration (FMCSA) Hazardous Materials Safety Permit requirements as the starting point for determining security sensitive hazardous materials. In 49 CFR part 385, FMCSA requires a safety permit for motor carriers transporting specified quantities of Class 7 (radioactive) materials; Class 1 materials (explosives); materials that are poisonous or toxic by inhalation (PIH or TIH materials); and compressed or refrigerated liquefied methane or liquefied natural gas. In addition to those materials, ATA suggests that PHMSA add the following materials from the UN high consequence dangerous goods list: (1) Bulk shipments of Division 2.1; (2) bulk shipments of Class 3, PG I and II; (3) Class 3 and Division 4.1 desensitized explosives (quantity to be determined); (4) bulk shipments of Division 4.2, PG I; (5) bulk shipments of Division 4.3, PG I; (6) bulk shipments of Division 5.1, PG I; (7) bulk shipments of Division 5.1 perchlorates, ammonium nitrate and ammonium nitrate fertilizers; (8) Division 6.2 infectious substances of Category A (quantity to be determined); (9) any quantity of select agents; and (10) bulk shipments of Class 8, PG I. The ATA uses quantities greater than 3,500 gallons or 5,000 pounds to define "bulk" for purposes of security planning.

We agree with COSTHA and ATA that the list of materials for which a security plan is required should be reevaluated. Our existing security plan rules were developed as baseline requirements. We considered the company preparing the security plan to be in the best position to assess security risks based on its operational circumstances. If security risks were determined to be insignificant, this would be reflected in a simple security plan with minimal content. Increased coverage would be required when security risks are more substantial. The security plan requirements went into effect more than four years ago, on September 25, 2003. Since then, both the industry and the government have gained experience evaluating security risks associated with specific hazardous materials and transportation environments and

identifying appropriate measures to address those risks. Accordingly, we initiated this rulemaking, in coordination with other DOT modal administrations (the Federal Aviation Administration (FAA), Federal Railroad Administration (FRA), and FMCSA), and TSA to consider modifications to the list of hazardous materials for which security plans are required.

II. Advance Notice of Proposed Rulemaking

On September 21, 2006, PHMSA published an advance notice of proposed rulemaking (ANPRM) seeking public comment on the current security plan requirements. Commenters were asked to address the list of materials posing a security threat sufficient to justify preparation and implementation of a security plan, including factors that

should be considered in assessing security risks; quantity thresholds that would trigger the security plan requirement; packing group criteria; and the availability of hazardous materials outside of transportation.

On November 30, 2006, PHMSA hosted a public meeting to discuss these issues and invite further comments and information concerning the types and quantities of materials that should be covered by the security plan rule. Six persons made presentations at the public meeting. A transcript of the meeting, with the statements of presenters, is available for review in the public docket for this rulemaking.

Written comments were received from 34 industry associations, offerors, carriers, and private citizens, identified in the following list.

| ID/name/company | Date | Docket No. |
|--|------------|---------------------|
| 1 Clare L. Welker | 09/28/2006 | PHMSA-2006-25885-2 |
| 2 Gregory Sutherland | 10/03/2006 | PHMSA-2006-25885-3 |
| 3 Clare L. Welker | 10/19/2006 | PHMSA-2006-25885-4 |
| 4 Duplainville Transport | 10/25/2006 | PHMSA-2006-25885-5 |
| 5 Ecolab | 11/22/2006 | PHMSA-2006-25885-6 |
| 6 Arthur E. Hall | 11/21/2006 | PHMSA-2006-25885-7 |
| 7 Institute of Makers of Explosives (IME) | 11/30/2006 | PHMSA-2006-25885-8 |
| 8 Thomas Jefferson National Accelerator Facility (Jefferson Lab) | 12/13/2006 | PHMSA-2006-25885-9 |
| 9 U.S. Department of Energy (DOE) | 12/18/2006 | PHMSA-2006-25885-10 |
| 10 Thomas L. Dunaway | 12/18/2006 | PHMSA-2006-25885-11 |
| 11 National Refrigerants, Inc. (NRI) | 12/19/2006 | PHMSA-2006-25885-13 |
| 12 United States Nuclear Regulatory Commission (NRC) | 12/19/2006 | PHMSA-2006-25885-14 |
| 13 Veolia ES Technical Solutions, L.L.C. (Veolia) | 12/19/2006 | PHMSA-2006-25885-15 |
| 14 Council on Radionuclides and Radiopharmaceuticals, Inc. (CORAR) | 12/19/2006 | PHMSA-2006-25885-16 |
| 15 Flavor and Extract Manufacturers Association (FEMA) | 12/20/2006 | PHMSA-2006-25885-17 |
| 16 Fragrance Materials Association (FMA) | 12/20/2006 | PHMSA-2006-25885-18 |
| 17 The Dow Chemical Company (Dow) | 12/20/2006 | PHMSA-2006-25885-19 |
| 18 Laboratory Corporation of America Holdings | 12/19/2006 | PHMSA-2006-25885-20 |
| 19 American Trucking Associations, Inc. (ATA) | 12/20/2006 | PHMSA-2006-25885-21 |
| 20 Dangerous Goods Transport Consulting, Inc. | 12/20/2006 | PHMSA-2006-25885-22 |
| 21 Air-Conditioning and Refrigeration Institute (ARI) | 12/20/2006 | PHMSA-2006-25885-23 |
| 22 Total Petrochemicals USA, Inc. | 12/20/2006 | PHMSA-2006-25885-24 |
| 23 American Beverage Association (ABA) | 12/19/2006 | PHMSA-2006-25885-25 |
| 24 Reusable Industrial Packaging Association (RIPA) | 12/20/2006 | PHMSA-2006-25885-26 |
| 25 Utility Solid Waste Activities Group (USWAG) | 12/20/2006 | PHMSA-2006-25885-27 |
| 26 Association of Hazmat Shippers, Inc. (AHS) | 12/21/2006 | PHMSA-2006-25885-28 |
| 27 National Paint & Coatings Association, Inc. (NPCA) | 12/20/2006 | PHMSA-2006-25885-29 |
| 28 National Propane Gas Association (NPGA) | 12/21/2006 | PHMSA-2006-25885-30 |
| 29 Dangerous Goods Advisory Council (DGAC) | 12/21/2006 | PHMSA-2006-25885-31 |
| 30 Council on Safe Transportation of Hazardous Articles, Inc. (COSTHA) | 12/22/2006 | PHMSA-2006-25885-32 |
| 31 National Tank Truck Carriers, Inc. (NTTC) | 12/27/2006 | PHMSA-2006-25885-33 |
| 32 Battery Council International (BCI) | 01/12/2007 | PHMSA-2006-25885-34 |
| 33 Nuclear Energy Institute (NEI) | 01/12/2007 | PHMSA-2006-25885-35 |
| 34 Bill Bradshaw—Comments | 05/17/2007 | PHMSA-2006-25885-36 |

The full text of their comments are available for review through the Federal eRulemaking Portal (<http://www.regulations.gov>).

Most commenters agree that the list of materials for which security plans are required should be revised to include only those materials that pose a significant security threat in transportation. In the words of one

commenter, “[R]egulating hazardous materials transportation security at the placarded load level is inconsistent with a risk-based approach. Using placards as a trigger for hazardous materials security regulations results in the overregulation of materials that are not capable of being used as a terrorist weapon.” (ATA) Several commenters suggest that our rule should address two

types of threats from the misuse of hazardous materials. As one put it: “First, there are commercial shipments of materials that, based on the hazard and quantity in the package would, if attacked in transportation and catastrophically released, enhance the damage or destruction of the attack.

* * * Second, there are other materials whose value to a terrorist is in the theft

or diversion of the material for manipulation into weapons of mass destruction (WMD).” (IME) Similarly, “Risk should be assessed considering the nature of the threat, the vulnerability of the target, and the potential consequences of an incident. Threat scenarios should consider the potential for a serious catastrophic release from a direct attack, the potential for tampering and subsequent downstream impact, and the potential for theft and misuse as a weapon of mass destruction.” (Dow)

Commenters also agree that, in developing this list, PHMSA should consider the potential for a material to be used for a criminal or terrorist act and the consequences of such an action, based on the hazard class and packing group of the material and the quantity or volume transported. Commenters generally oppose a material-specific list of chemicals and other materials that pose a security risk. “We urge PHMSA to reject [security sensitive hazardous materials] lists that are material-by-material based and to continue to embrace one based on a hazard class approach. * * * Among other advantages, a hazard class approach can be internationally harmonized and it addresses issues created by mixtures and solutions that have plagued material-by-material lists in other regulatory venues.” (IME)

Most commenters suggest that security plan requirements should apply to the list of hazardous materials identified in the UN Recommendations as “high consequence dangerous

goods.” “[W]e believe the current Security Plan requirements should be harmonized with the UN Recommendations so that they focus on the types of hazards and volumes that pose a real threat of weaponization.” (Flavor and Extract Manufacturers Association) Also, “[t]he UN recommendation to require security plans for ‘High Consequence Dangerous Goods’ appears to be a reasonable approach, which considers hazard, form of packaging and volume thresholds.” (Dow) As well, “the UN Recommendations individually define ‘significant risk’ materials and quantities based on the actual risk factors * * * rather than general transport classifications. Importantly, material identification is accomplished through a stakeholder developed ‘list of high consequence dangerous goods’ ensuring that material is independently peer reviewed before it is assigned a risk level.” (Air-Conditioning and Refrigeration Institute).

III. Proposed Modifications to Security Plan Criteria

A. Summary of Proposal

Based on the comments received on the ANRPM and an evaluation of possible security threats posed by specific types and classes of hazardous materials, PHMSA is proposing to modify the list of materials for which a security plan is required. PHMSA agrees with the commenters to the ANRPM that the UN list of high consequence dangerous goods includes most of the hazardous materials that pose a

significant transportation security risk. The UN list of high consequence dangerous goods was used as the starting point for our deliberations for this NPRM.

PHMSA worked closely with FRA, FMCSA, and TSA to assess the transportation security risks associated with the different classes and quantities of hazardous materials. To determine the types of materials that should be subject to security planning requirements, PHMSA evaluated specific transportation scenarios in which a terrorist could deliberately use hazardous materials to cause large-scale casualties and property damage. In our qualitative risk evaluation, we considered the following factors: (1) Physical and chemical properties of the material or class of materials and how those properties could contribute to a security incident; (2) quantities shipped and mode of transport; (3) past terrorist use; (4) potential use; and (5) availability. One of the most significant security vulnerabilities involves the potential for a perpetrator to take control of a conveyance containing a high-risk material and move it to a site where the material could cause maximum damage or provide unusual leverage. For some hazardous materials, the primary security threat involves theft or hijacking of raw materials for use in weapons of mass destruction.

On the basis of these considerations, PHMSA proposes to modify the current list of materials covered by the security plan requirement, as summarized in the following table:

PROPOSED REVISIONS TO THE LIST OF HAZARDOUS MATERIALS FOR WHICH TRANSPORTATION SECURITY PLANS WILL BE REQUIRED

| Class | Current threshold | Proposed threshold | Change |
|-----------|---------------------------------------|---|--|
| 1.1 | Any quantity | Any quantity | None. |
| 1.2 | Any quantity | Any quantity | None. |
| 1.3 | Any quantity | Any quantity | None. |
| 1.4 | A quantity requiring placarding | Any quantity of UN 0104, 0237, 0255, 0267, 0289, 0361, 0365, 0366, 0440, 0441, 0455, 0456, 0500. | Security plan required only for detonators and shaped charges. |
| 1.5 | A quantity requiring placarding | Any quantity | Security plan required for all shipments. |
| 1.6 | A quantity requiring placarding | Not subject | Security plan not required for any Division 1.6 shipments. |
| 2.1 | A quantity requiring placarding | 3,000 L in a single packaging | Security plan not required for less than 3,000 L. |
| 2.2 | A quantity requiring placarding | Not subject except for oxygen and gases with a subsidiary 5.1 hazard (3,000 L in a single packaging). | Security plan not required for most non-flammable, non-poisonous compressed gas shipments. |
| 2.3 | Any quantity | Any quantity | None. |
| 3 | A quantity requiring placarding | 3,000 L in a single packaging and any quantity of Class 3 desensitized explosives. | Security plan not required for less than 3,000 L except for desensitized explosives. |
| 4.1 | A quantity requiring placarding | Any quantity desensitized explosives | Security plan not required except for desensitized explosives. |
| 4.2 | A quantity requiring placarding | PG I and II only in quantities of 3,000 kg or more in a single packaging. | Security plan not required for PG III materials. |
| 4.3 | Any quantity | Any quantity | None. |

PROPOSED REVISIONS TO THE LIST OF HAZARDOUS MATERIALS FOR WHICH TRANSPORTATION SECURITY PLANS WILL BE REQUIRED—Continued

| Class | Current threshold | Proposed threshold | Change |
|-----------|---|---|---|
| 5.1 | A quantity requiring placarding | PG I and II liquids, perchlorates, ammonium nitrate (including fertilizers) in quantities of 3,000 L or more in a single packaging. | Security plan not required for PG III liquids or unlisted solids. |
| 5.2 | Any quantity of Organic peroxide, Type B, liquid or solid, temperature controlled. | Any quantity of Organic peroxide, Type B, liquid or solid, temperature controlled. | None. |
| 6.1 | A quantity requiring placarding; any quantity of PIH material. | Any quantity of PG I; 3,000 L for PG II and III. | Security plan not required for less than 3,000 L of PG II and III. |
| 6.2 | Select agents | Select agents | None. |
| 7 | Shipments requiring Yellow III label; highway route controlled quantity. | For radionuclides covered by the IAEA Code of Conduct, Category 1 and Category 2 sources per package; for all other radionuclides, 3000 A2 per package. | Security plan only required for Class 7 materials that pose transportation security risk. |
| 8 | A quantity requiring placarding | PG I only in quantities of 3,000 L or more in a single packaging. | Security plan not required for PG II and III materials. |
| 9 | Capacity >3,500 gallons for liquid/gas; volumetric capacity >468 cubic feet for solids. | Not subject | Security plan not required for Class 9 materials. |

Our proposed revisions are explained in detail in the following section.

B. System Characteristics and Risks

A number of characteristics of the hazardous materials transportation system create the potential for misuse: (1) Substantial quantities of inherently dangerous materials are transported; (2) these materials are already mobile; (3) these materials are frequently transported in proximity to densely populated areas; and (4) placards or other markings required for safety may communicate hazard information to those who would misuse it.

Following are the hazards of greatest concern from a transportation security perspective:

Explosion and fire. Hazardous materials that pose a risk of explosion or fire may be used to attack large groups of people and critical infrastructure, such as buildings, tunnels, bridges, subways, communication centers, and electrical power grids.

Poison Inhalation Hazards (PIH). PIH materials, either as gases or volatile liquids, can be used to attack people in confined spaces such as buildings or subways. Bulk quantities present dangers to large areas and could affect a significant number of people in urban areas.

Poison liquids or solids. Poisons can be used to attack food or drinking water supplies or to attack groups of people indoors or outdoors.

Infectious substances. Depending on the mode of transmission for a given material, infectious substances can be used to contaminate food or water supplies or to expose large numbers of

people to disease. The suspected or possible presence of these materials can result in long-term denial of the use of space, facilities, or goods.

Radioactive materials. These materials can cause severe chronic effects on large numbers of people, depending on exposure levels and the time exposed. The suspected or possible presence of these materials can result in long-term denial of the use of space, facilities, or goods.

Other materials of concern. Certain hazardous materials can be mixed to create explosions, intensified burning, and toxic effects or used as precursor chemicals in the manufacture of more dangerous substances. For example, mixing poisonous materials with acidic material can generate toxic gases (e.g., sodium cyanide mixed with hydrochloric acid will generate hydrogen cyanide gas).

C. Security Risks for Specific Classes of Materials

A detailed discussion of the transportation security risks posed by specific classes of hazardous materials follows.

1. Division 1.1, 1.2, and 1.3 Explosives

Division 1.1., 1.2, and 1.3 explosive materials (e.g., certain types of ammunition and cartridges, black powder, gun powder, demolition devices, depth charges, certain types of detonators, certain types of fireworks, rockets, and warheads) pose significant safety and security risks in transportation. A Division 1.1 explosive is one that presents a mass explosive hazard. A mass explosion is one that affects almost the entire load

simultaneously. An explosion of Division 1.1 materials creates a pressure pulse that moves faster than the speed of sound. A Division 1.2 explosive has a projection hazard, which means that if the material explodes, it will 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 improvised explosive device (IED), these materials could result in significant numbers of fatalities and substantial damage to transportation infrastructure and the surrounding area. When available, these explosives have been the preferred weapon of terrorists. This trend is not expected to change.

Significant quantities of Division 1.1, 1.2, and 1.3 explosives are transported by highway and rail for both commercial and military applications. The Department of Defense alone moves approximately 30,000 shipments a year by motor carrier. Motor carrier shipments are transported largely on the nation's interstate highway system, which bisects or adjoins many metropolitan areas offering significant iconic-value and critical infrastructure targets. About 500 carloads of these explosives are transported by rail each year. Like the interstate highway system, the rail transportation network intersects many densely populated areas.

The HMR currently require security plans for shipments of any quantity of Division 1.1, 1.2, or 1.3 explosives. PHMSA believes that this requirement provides an appropriate level of security, given the potential

vulnerabilities and risks associated with these materials and thus proposes to retain this requirement in the NPRM.

2. Division 1.4 Explosives

Division 1.4 explosives are those that present a minor explosive hazard. The explosive effects are largely confined to the package, with no projection of fragments of appreciable size or range. This category of explosives includes detonators used to detonate the Division 1.1, 1.2, and 1.3 explosives described above. Detonators are part of all IEDs. Over 500,000 tons of Division 1.4 explosives are transported by rail and highway in the United States every year.

Currently, the HMR require security plans for placarded amounts of Division 1.4 explosives. Our evaluation suggests that most Division 1.4 explosives do not pose a significant transportation security risk. However, Division 1.4 detonators are an attractive target for theft and use as initiating devices for IEDs. Therefore, in this NPRM, PHMSA proposes to require security plans only for shipments of any quantity of the following types of Division 1.4 explosives (listed by proper shipping name and UN identification number) because they are difficult to produce, are key components to IEDs, and can be used as initiators for other explosives:

- (1) Detonator assemblies, non electric for blasting (UN 0361, UN 0500)
- (2) Detonators for ammunition (UN 0365, UN 0366)
- (3) Detonators, electric, for blasting (UN 0255, UN 0456)
- (4) Detonators, non-electric, for blasting (UN 0267, UN 0455)
- (5) Cord, detonating, flexible (UN 0289)
- (6) Cord, detonating, mild effect, metal clad (UN 0104)
- (7) Charges, shaped, flexible, linear (UN 0237)
- (8) Charges, shaped, without detonator (UN 0440, UN 0441)

3. Division 1.5 Explosives

Division 1.5 explosives are very insensitive explosives. This division covers substances that have a mass explosion hazard but are so insensitive that they pose very little probability of initiation or of transition from burning to detonation under normal conditions of transport. In practice, Division 1.5 explosives are activated using a higher-energy explosive charge. Roughly 4.3 million tons of Division 1.5 explosives are transported by rail and highway in the United States every year.

Division 1.5 explosives could be used in attacks on people or infrastructure. While these explosives are insensitive to effects from normal transportation

accident conditions, such as fire or violent shock, Division 1.5 explosives can be made to detonate if initiated by an explosive charge. The detonation effects, while less severe than those of Division 1.1, 1.2, and 1.3 explosives, are substantial. An example of a Division 1.5 explosive is ammonium nitrate-fuel oil mixture (ANFO) that, with a properly designed explosive chain, can produce a substantial blast wave. Insensitive bulk blasting agents like ANFO have been used by terrorists in the past, most notably in the attack on the Murrah Federal Building in Oklahoma City.

Currently, the HMR require security plans for placarded shipments of Division 1.5 explosives. In this NPRM, PHMSA proposes to require security plans for shipments of Division 1.5 explosives transported in any quantity.

4. Division 1.6 Explosives

Division 1.6 explosives are extremely insensitive articles that do not have a mass explosion hazard and that contain only extremely insensitive detonating substances with only a negligible probability of accidental initiation or propagation. Currently, the HMR require security plans for shipments of placarded amounts of Division 1.6 materials. However, our evaluation concludes that these materials do not pose a transportation security risk. Therefore, in this NPRM, PHMSA proposes to delete Division 1.6 explosives from the list of materials for which security plans are required.

5. Division 2.1 Flammable Gases

Division 2.1 materials are flammable gases that may be transported at ambient pressure in a compressed or liquefied compressed state. Flammable gases will burn if mixed with an appropriate amount of air; confined burning of a flammable gas can lead to detonation. A commonly transported example of a flammable gas is propane, a liquefied compressed gas. When liquid propane is released into the atmosphere, it quickly vaporizes into the gaseous form that is its normal state at atmospheric pressure. This happens very rapidly, and in the process, the propane combines readily with air to form fuel-air mixtures that are ignitable over a range of 2.2 to 9.5 percent propane by volume. If an ignition source is present in the vicinity of a highly flammable mixture, the vapor cloud ignites and burns very rapidly (characterized by some experts as "explosively").

Over 120 million tons of flammable gas are used and distributed in the United States on an annual basis. A significant portion is transported by

pipeline; however, more than 200,000 carloads of these materials are transported by rail, and over 40 million tons are transported by highway each year. These materials generally are consumer products and can be purchased without special licenses or security procedures.

Based on their hazard characteristics and the frequency with which propane and other Division 2.1 materials are transported in this country, PHMSA believes that materials meeting the definition for classification as Division 2.1 materials present a sufficient security risk to warrant the imposition of security plan requirements. Terrorists overseas have used flammable gas in attacks on people and buildings, using an IED to detonate the gas. The resulting disbursement and ignition of the gas creates a significantly larger fireball and heat signature than typical of an explosive detonation.

The HMR currently require security plans for shipments of Division 2.1 materials in amounts that require placarding—that is, amounts greater than 119 gallons in a single packaging or container. In evaluating specific security risks associated with shipments of Division 2.1 materials, PHMSA has concluded that shipments in quantities less than 3,000 L in a single package do not pose a transportation security threat warranting development and implementation of security plans. As discussed above, the major security threat associated with these materials is their potential use to attack large groups of people and critical infrastructure; a substantial quantity is necessary to achieve a significant effect. Therefore, this NPRM proposes to require security plans for shipments of Division 2.1 materials in amounts greater than or equal to 3,000 L in a single package or container. Security plans would not be required for shipments of Division 2.1 materials in lesser quantities.

6. Division 2.2 Compressed Gases

Division 2.2 compressed gases are those that are neither flammable nor poisonous. Division 2.2 compressed gases are regulated for transportation safety purposes because they pose a physical hazard due to the increased pressure under which the material is maintained. In addition, Division 2.2 compressed gases will displace oxygen if released in a confined space. Without oxygen, people very quickly lose consciousness and will die within three or four minutes.

Currently, the HMR require shippers and carriers of Division 2.2 gases in amounts that require placarding to develop and implement security plans.

However, the hazard characteristics of these materials do not lend themselves to terrorist or criminal use. Therefore, PHMSA has concluded that Division 2.2 compressed gases generally do not pose a security threat sufficient to warrant specific security planning measures. However, we are proposing to require security plans for oxygen and for other Division 2.2 gases that are oxidizers. In addition to being a Division 2.2 material, oxygen and other oxidizers

enhance the combustion of other materials. Oxygen and similar oxidizers will increase the likelihood and intensity of a fire or other chemical reaction. At least 7 million tons of oxygen are transported by motor carriers each year. Because of its oxidizing characteristics and the volume transported, large shipments of oxygen should be subject to security planning requirements. Therefore, this NPRM proposes to require shippers and

carriers of oxygen in quantities greater than or equal to 3,000 L in a single package or container to develop and implement security plans. In addition, we are proposing to require security plans for shipments of any Division 2.2 compressed gases with a subsidiary hazard of Division 5.1 oxidizer when transported in quantities of at least 3,000 L in a single package or container. A list of such materials is provided below.

| Proper shipping name | Hazard class | Identification Nos. | Label code |
|---|--------------|---------------------|------------|
| Air, refrigerated liquid, (<i>cryogenic liquid</i>) | 2.2 | UN1003 | 2.2, 5.1 |
| Air, refrigerated liquid, (<i>cryogenic liquid</i>) non-pressurized | 2.2 | UN1003 | 2.2, 5.1 |
| Carbon dioxide and oxygen mixtures, compressed | 2.2 | UN1014 | 2.2, 5.1 |
| Compressed gas, oxidizing, n.o.s. | 2.2 | UN3156 | 2.2, 5.1 |
| Gas, refrigerated liquid, oxidizing, n.o.s. (<i>cryogenic liquid</i>) | 2.2 | UN3311 | 2.2, 5.1 |
| Liquefied gas, oxidizing, n.o.s. | 2.2 | UN3157 | 2.2, 5.1 |
| Nitrous oxide | 2.2 | UN1070 | 2.2, 5.1 |
| Nitrous oxide, refrigerated liquid | 2.2 | UN2201 | 2.2, 5.1 |

7. Division 2.3 and Division 6.1 PIH Materials

Poison inhalation hazard (PIH) materials are gaseous or liquid materials that are known or presumed on the basis of tests to be toxic to humans and to pose a hazard to health in the event of a release during transportation. PIH materials form a toxic plume upon release into the atmosphere. Dispersion of these vapors can endanger significant numbers of people. Examples of PIH materials include phosgene, chlorine, hydrogen fluoride, and anhydrous ammonia. Each year about 100,000 carloads of PIH materials are shipped by rail, and over 8 million tons of PIH materials are transported by highway. Because of their safety risks, PIH materials are among the most stringently regulated of all hazardous materials.

The most infamous example of the safety risks posed by PIH materials is the 1984 accident in Bhopal, India, in which approximately 10,000 gallons of methyl isocyanate was released from a chemical plant, causing nearly 3,000 deaths and more than 15,000 injuries. A PIH material (sarin) was released by terrorists in a Tokyo subway in 1995, resulting in 12 fatalities and hundreds of injuries. More recently, on January 6, 2005, in Graniteville, South Carolina, a 42-car freight train, carrying several tank cars of chlorine, collided with a standing train. The accident resulted in the puncture of one tank car and the release of a cloud of chlorine gas that killed nine people. In addition, terrorists in Iraq have employed tank trucks loaded with chlorine in several attacks.

The transportation security risks of these materials have been amply demonstrated. The HMR currently require security plans for shipments of PIH materials in any quantity. We believe this requirement provides an appropriate level of security, given the potential vulnerabilities and risks associated with these materials. We are not proposing any changes to this requirement in this NPRM.

8. Class 3 Flammable Liquids

Flammable liquids burn vigorously, giving off large quantities of intense heat. Some may produce flammable atmospheres in confined spaces that, when ignited, could cause significant damage through deflagration or detonation. At least 37 million shipments of flammable liquids are moved in commerce in the United States every year, including upwards of 24 million shipments of gasoline from bulk storage facilities through the distribution chain.

Class 3 materials could be used in a terrorist attack to trigger a large, intense fire that could cause deaths, injuries, and damage to buildings and infrastructure. To be effective, such an attack would necessarily involve a large quantity of flammable liquid. The HMR currently require security plans for shipments of flammable liquids in amounts that require placarding. In this NPRM, PHMSA proposes to require security plans for shipments of Class 3 materials in amounts greater than or equal to 3,000 L in a single package or container. Security plans would not be required for shipments in lesser quantities.

9. Class 3 and Division 4.1 Desensitized Explosives

Desensitized explosive substances are explosive materials that have been rendered non-explosive, according to the UN Manual of Tests and Criteria, by means of adding a diluting liquid or solid. The diluted substances, once tested and found not in Class 1, are regulated under the HMR as Division 4.1 flammable solids or Class 3 flammable liquids, depending on their physical state and hazardous properties. Water is the most commonly used diluent/desensitizing material, even if it is not miscible (dissolves in) with the explosive. Other diluents can include flammable or non-flammable liquids or solids that have no explosive properties in and of themselves, but prevent the ability of the explosive substance to initiate or sustain a detonation or deflagration. Plasticizing liquids like triacetin, dibutyl phthalate, vegetable oil, or paraffin oil are sometimes used. Simple solid diluents for explosives include bentonite clay, plastic granules, gypsum and waxes of various types. Some diluents like water are easily separated from the explosive and the explosive is easy to reconstitute by drying. Some diluents can be extracted by dissolving them away from the explosive (or vice versa) with various solvents. Large quantities of desensitized explosives are moved by commercial rail and motor carrier every year in support of mining and other industrial operations.

Desensitized explosives have been used in terrorist attacks here and overseas. Urea nitrate, for example, has been used in a number of terrorist

attacks, most notably the first vehicle-borne improvised explosive device attack on the World Trade Center in 1993. Currently, the HMR require security plans for placarded shipments of Class 3 or Division 4.1 desensitized explosives. Because many desensitized explosives can be readily reconstituted into explosive materials, this NPRM proposes to require security plans for shipments of any quantity of Class 3 or Division 4.1 desensitized explosives. Other materials within Division 4.1 would not be subject to the security plan requirement under this NPRM.

10. Division 4.2 Spontaneously Combustible Material

Division 4.2 spontaneously combustible materials are pyrophoric or self-heating materials. Division 4.2 materials in Packing Group I are pyrophoric materials. A pyrophoric material is a liquid or solid that, even in small quantities and without an external ignition source, can ignite when it comes in contact with air. Division 4.2 materials in Packing Groups II and III are self-heating materials. A self-heating material is likely to self-heat when in contact with air. About one million tons of these materials are shipped in commerce each year.

Currently, the HMR require security plans for placarded shipments of Division 4.2 materials. In this NPRM, PHMSA proposes to retain the security plan requirement for shipments of 3,000 kg or more in a single packaging of Division 4.2 materials in Packing Groups I and II and to eliminate the security plan requirement for Division 4.2 materials in Packing Group III because assessment indicates that the security risks associated with these materials are not sufficient to warrant development and implementation of security plans.

11. Division 4.3 Dangerous When Wet Material

Division 4.3 materials are water reactive—they emit flammable or toxic gases upon contact with water. The most hazardous Division 4.3 materials spontaneously ignite on contact with water. These are industrial chemicals easily available with no security restrictions. Roughly one million tons are shipped by highway each year, in addition to about 3,000 yearly shipments by rail. Division 4.3 materials may be of interest to terrorists planning a toxic gas attack on crowded venues like subways, buses, shopping centers, or movie theaters.

Currently, the HMR require security plans for shipments of Division 4.3

materials in any quantity. PHMSA believes this requirement provides an appropriate level of security, given the potential vulnerabilities and risks associated with these materials; therefore, this NPRM proposes to retain this requirement.

12. Division 5.1 Oxidizing Material

An oxidizer is a material that may cause or enhance the combustion of other materials, generally by yielding oxygen. Some oxidizers may explode when heated. Perchlorates are a subset of Division 5.1 materials. Both potassium perchlorate and ammonium perchlorate are used extensively in the pyrotechnics industry; ammonium perchlorate is a component of solid rocket fuel. Ammonium nitrate and ammonium nitrate fertilizers are also examples of oxidizing materials. As a strong oxidizing agent, ammonium nitrate makes an explosive mixture when combined with a fuel such as a hydrocarbon, usually diesel fuel (oil) or, sometimes, kerosene.

Division 5.1 oxidizing materials are frequently used as components of IEDs. On April 19, 1995, Timothy McVeigh blew up the Murrah Federal Building in Oklahoma City with a bomb made from fertilizer and fuel oil. Division 5.1 materials are industrial chemicals easily available with no security restrictions. Approximately nine million tons of Division 5.1 materials are shipped by motor carrier each year. The railroads transport about 50,000 shipments yearly.

Currently, the HMR require security plans for placarded shipments of Division 5.1 materials. This NPRM proposes to require a security plan for shipments of Division 5.1 materials in Packing Groups I and II, perchlorates, and ammonium nitrate (including fertilizers) in a single packaging, in a quantity of 3,000 kg or more for solids or 3,000 L or more for liquids. Except for perchlorates and ammonium nitrate, we are proposing to eliminate the security plan requirement for Division 5.1 materials in Packing Group III.

13. Division 5.2 Organic Peroxides

Organic peroxides are temperature sensitive, self-reacting materials that pose both a fire and explosion hazard, and may be both toxic and corrosive. Once an organic peroxide reaches a certain temperature (called the self-accelerating decomposition temperature or SADT), its reaction will proceed uncontrollably. Organic peroxides are assigned to types A through G according to their reactivity. The most dangerous organic peroxides will detonate much like a low-energy Division 1.1 explosive.

The most dangerous organic peroxides, assigned to Type A, are prohibited from transportation; those that are permitted in transportation are stringently regulated in terms of the quantities that may be transported and the type of packaging that may be utilized. Organic peroxides with SADTs in the ambient temperature range must be transported with temperature controls. Type B organic peroxides are the most reactive and, hence, the most dangerous organic peroxides permitted in transportation.

Organic peroxides were used in the July 2005 terrorist bombings in London, and were planned for use by terrorists recently plotting to destroy aircraft flying from the United Kingdom to the United States. Terrorists call these materials “Mother of Satan,” an indication of their attractiveness as weapons or components of weapons. Minimal amounts of Division 5.2 organic peroxides are transported on a regular basis.

The HMR currently require security plans for liquid or solid Type B, temperature controlled Division 5.2 organic peroxides transported in any quantity. PHMSA believes that this requirement provides an appropriate level of security, given the potential vulnerabilities and risks associated with these materials and proposes to retain this requirement in this NPRM.

14. Division 6.1 Poisonous Materials (Other Than PIH Materials)

Division 6.1 materials may be toxic to humans through oral ingestion or dermal exposure. As defined in the HMR, Division 6.1 materials have a range of toxicity values; the most toxic materials are assigned to Packing Group I. Division 6.1 materials can be used to contaminate food and water supplies; however, the effectiveness of such an attack would depend on the toxicity level of the material and the quantity utilized. More than eight million tons of these materials are shipped in commerce on a yearly basis. Of this, approximately two million tons are transported by highway; railroads move more than 30,000 shipments each year.

The HMR currently require security plans for placarded shipments of Division 6.1 materials in all packing groups. In this NPRM, PHMSA proposes to require security plans for shipments of Division 6.1, Packing Group I materials in any amount and shipments of 3,000 L or more of Division 6.1, Packing Groups II and III materials. Security plans would not be required for shipments of Division 6.1, Packing Groups II and III in amounts less than 3,000 L.

15. Division 6.2 Infectious Substances and Select Agents

A Division 6.2 infectious substance is a material that contains a pathogen, which is a microorganism or other agent that can cause disease in humans or animals. The degree of risk associated with the transportation of a given Division 6.2 material depends on the nature of the material, including the virulence of the material, the way it is transmitted between humans or animals, the manner and ease of transmission between humans or animals, and the availability of preventive measures and treatment protocols.

Select agents are infectious substances and toxins determined by the Center for Disease Control and United States Department of Agriculture to present a significant public health risk. Examples include ebola viruses, ricin, small pox, avian flu virus, foot-and-mouth disease virus, and anthrax. Use and movement of these materials are very strictly controlled.

Because of the potential for select agents to be developed as weapons to cause serious and significant outbreaks of disease in humans and animals, the HMR require security plans for shipments. This requirement provides an appropriate level of security, given the potential vulnerabilities and risks associated with these materials. Therefore, PHMSA proposes to retain this requirement in this NPRM. However, in addition to the proposed requirement for pathogens that affect humans and animals, expansion of the security plan requirements to include pathogens that affect plants is also being considered.

In accordance with 9 CFR part 121 we currently require security plans for biological agents and toxins with the potential to pose a severe threat to public health and safety, to animal health, or to animal products. As a result of concerns expressed by USDA's Animal and Plant Health Inspection Service (APHIS), PHMSA believes that the expansion of the security plan requirements to include biological agents and toxins that have the potential to pose a severe threat to plant health or to plant products is appropriate. To achieve this, the current security plan requirements for Division 6.2 materials to include materials listed in 7 CFR part 331 would be expanded. Part 331 implements the provisions of the Agricultural Bioterrorism Protection Act of 2002 setting forth the requirements for possession, use, and transfer of select agents and toxins. APHIS supports the inclusion of select agent

plant pathogens to the list Division 6.2 materials requiring security plans. Stakeholders are urged to fully consider the implications of requiring security plans for select agent plant pathogens and to provide comments.

16. Class 7 Radioactive Materials

The United States transportation system annually moves millions of shipments of radioactive materials, the largest share consisting of small packages containing radiopharmaceuticals. The HMR security plan requirements currently apply to a person who offers for transportation or transports a highway route-controlled quantity (HRCQ) of a Class 7 (radioactive) material. The HMR also require security plans for any shipment that requires placarding under subpart F of part 172; this includes shipments of packages with radioactive Yellow III labels and exclusive use shipments of low specific activity material and surface contaminated objects.

Our evaluation suggests that these thresholds must be expanded to include additional materials that, by virtue of their relative radiation levels and physical characteristics, pose similar security threats. Security concerns surrounding the transport of radioactive materials reflect their potential use in radiological dispersal devices (RDDs) (or "dirty bombs"), designed to spread radioactive material from the detonation of conventional explosives or other means, and radiological exposure devices (REDs), designed to expose people to radiation. The consequences of an RDD or RED event would depend on the specific radioactive material and quantity involved, the dispersal or exposure mechanism, and the environmental conditions.

This NPRM proposes to adopt the security thresholds recommended by the International Atomic Energy Agency (IAEA) for radioactive materials in transport. These levels reflect research conducted by the U.S. Department of Energy, the U.S. Nuclear Regulatory Commission (NRC), and the IAEA on the attractiveness of radionuclides for malevolent use. The IAEA "Code of Conduct on the Safety and Security of Radioactive Sources" (IAEA/CODEOC/2004) was revised to take account of international concerns following the events of September 11, 2001. The United States played a key role in revising the Code of Conduct and has been successful in gaining national commitments to the Code of Conduct by more than 80 countries. One of the essential features of the Code of Conduct is the cataloging of radioactive

sources based on their relative potential to cause immediate injury or death. There are three categories that range from Category 1, posing the highest short-term exposure risk to Category 3, posing relatively little risk of permanent injury through brief exposure.

The IAEA has used the Code of Conduct in the development of the recently issued Nuclear Security Series Guide, "Security of Radioactive Material during Transport" (in draft, expected to be issued 2009). This document is intended to provide IAEA Member States with guidance on implementing security measures for the transport of radioactive material. The threshold values outlined in this Notice were derived on the basis of the potential radiological consequences of malicious acts involving radioactive material. The Guide calls for enhanced security of radioactive material in transport, including adoption and compliance with security plans for consignments that include at least one package meeting one or both of the following activity threshold values:

- For radioactive sources and other forms of radioactive material containing radionuclides covered by the Code of Conduct, Category 1 and Category 2; or
- For all other radionuclides, 3000 A₂ per package.

The Code of Conduct values are universally understood and implemented for security of radioactive sources internationally as well as domestically by the NRC. For radionuclides not included in the Code of Conduct, a value of 3000 A₂ can be used to identify packages that are subject to the enhanced transport security measures, since the A₂ value of a radionuclide never exceeds the A₁ value.

17. Class 8 Corrosive Materials

For purposes of the HMR, a Class 8 corrosive material is a liquid or solid that causes full thickness destruction of human skin at the site of contact within a specified period of time. Class 8 materials in Packing Group I cause full thickness destruction of human skin tissue within 60 minutes after an exposure time of 3 minutes. These materials can cause irreversible damage to human tissue. Examples include nitric acid, sodium hydroxide (caustic soda or lye), and hydrochloric acid. Class 8 materials also exhibit corrosive properties towards other materials, most notably aluminum and steel.

Given the rate at which they react with human skin, aluminum and steel, these materials could be used to sabotage infrastructure, cause mass injury through proper dispersion, and

present a method for sabotaging other hazardous material containers such as cylinders, tank cars, and cargo tank motor vehicles. Approximately 90 million tons of these materials are transported in commerce each year, including more than 50 million tons transported by motor carrier. Rail carriers annually move more than 270,000 shipments of Class 8 corrosive materials.

The HMR currently require security plans for placarded shipments of Class 8 materials in all packing groups. In this NPRM, PHMSA proposes to retain security plan requirements for shipments of Class 8, Packing Group I materials in amounts greater than or equal to 3,000 L in a single package or container. Lesser amounts of PG I and PG II and III corrosive materials pose little, if any, security risk. Therefore, security plans would not be required for shipments of Class 8 materials, Packing Group I, in amounts less than 3,000 L, nor would security plans be required for shipments of Class 8 materials in Packing Groups II or III.

18. Class 9 Materials

Class 9 materials are materials that present a hazard during transportation but do not meet the definition of any other hazard class. Class 9 covers elevated temperature materials and materials that pose a risk to the environment—hazardous substances, hazardous wastes, and marine pollutants. Although it is possible that Class 9 materials could be deliberately used to contaminate the environment, the likelihood of such a terrorist action is remote because of the quantities of material that would be required and the relatively minor result that would be achieved.

Currently, the HMR require security plans for Class 9 materials transported in a bulk packaging with a capacity equal to or greater than 13,248 L (3,500 gallons) for liquids or gases or greater than 13.24 cubic meters (468 cubic feet) for solids. This NPRM proposes to eliminate this requirement; the security risks associated with the transportation of these materials are not sufficient to warrant development and implementation of security plans.

IV. Additional Revisions to Security Requirements

This NPRM also proposes a number of amendments to clarify and enhance current security requirements, including requirements for security plans and for training. These proposals are detailed below.

A. Revisions to Security Plan Requirements

Section 172.802 of the HMR establishes the components that must be included as part of a hazardous materials transportation security plan. Paragraph (a) of this section requires that a security plan include an assessment of possible transportation security risks associated with the hazardous materials covered by the security plan and appropriate measures to address the identified security risks. This assessment is part of the plan and must be in writing and maintained with the plan in accordance with § 172.802(b). It has come to PHMSA's attention that there is some confusion as to whether the security risk assessment must be in writing. To clarify this, the NPRM proposes to specify that the security plan, including the security risk assessment, must be in writing and must be retained for as long as the plan remains in effect.

In addition, the NPRM proposes to clarify the application of the required risk assessment to site-specific and location-specific security issues. As specified in the proposed rule text, the risk assessment must include an assessment of specific risks that exist on specific routes or in specific locations.

Also proposed is a revised paragraph (b) to clarify the following security plan requirements:

- The security plan must identify, by job title, the senior management official responsible for the overall development and implementation of the plan.
- The security plan must be reviewed at least annually and updated if circumstances change (e.g., acquisitions, mergers, operating rights, materials transported, expanded or reduced service levels).
- The security plan must include a plan for training hazmat employees.
- The security plan must include security duties for each position or department that is responsible for the plan's implementation and the process for notifying employees when specific elements of the security plan must be implemented.

B. Security Training

Companies that are subject to the security plan requirements in subpart I of part 172 are required to provide in-depth training concerning their security plan and its implementation. The in-depth security training must cover company security objectives, specific security procedures, employee responsibilities, actions to take in the event of a security breach, and the organizational security structure. As

written, the in-depth security-training requirement appears to apply to all hazmat employees; this was not the intention. The in-depth security training requirement was meant to apply only to hazmat employees who perform regulated functions related to the transportation of the materials covered by the security plan or who are responsible for implementing the security plan. This NPRM proposes to clarify the in-depth security-training requirement by specifying its application to hazmat employees who are directly involved with implementing security plans.

As discussed above, this NPRM proposes to require security plans to be reviewed at least once each year and updated as necessary to reflect changing circumstances. The in-depth security training requirement must be provided to hazmat employees responsible for the plan's implementation once every three years, in accordance with § 172.704(c). This NPRM also proposes to require in-depth security training once every three years or, if the security plan is revised during the recurrent training cycle, within 90 days of implementation of the revised security plan. In this way, those hazmat employees responsible for implementing the security plan will be trained in a timely manner concerning any changes or revisions to the plan.

C. Coordination With TSA

DHS is the lead Federal agency for transportation and hazardous materials security. DOT consults and coordinates on security-related hazardous materials transportation matters to ensure consistency with DHS requirements and broader security objectives. Both departments work to ensure that the regulated industry is not confronted with inconsistent government-issued security guidance or requirements.

The Federal hazardous materials transportation law (Federal hazmat law, 49 U.S.C. 5101 *et seq.*) authorizes the Secretary 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. Authority to enforce the HMR has been delegated to the FAA "with particular emphasis on the transportation or shipment of hazardous materials by air;" the FRA "with particular emphasis on the transportation or shipment of hazardous materials by railroad;" PHMSA "with particular emphasis on the shipment of hazardous materials and the manufacture, fabrication, marking, maintenance, reconditioning, repair or

test of multi-modal containers that are represented, marked, certified, or sold for use in the transportation of hazardous materials;" and the FMCSA "with particular emphasis on the transportation or shipment of hazardous materials by highway." 49 CFR part 1, subpart C. Thus, enforcement of the security plan and training regulations is shared among the DOT operating administrations, with each placing particular emphasis on their respective authorities.

Under Section 101(a) of the Aviation and Transportation Security Act (ATSA) (codified at 49 U.S.C. 114) and 49 CFR 1502.1, TSA has broad responsibility and authority for "security in all modes of transportation * * *" TSA has additional responsibilities for surface transportation security, as specified in 49 U.S.C. 114(f), through delegation by the Secretary of Homeland Security under the 9/11 Commission Act.

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. 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. Moreover, in addition to inspecting for compliance with specific regulations, TSA may conduct general security assessments. Under its authority, TSA may assess threats to transportation security; monitor the state of awareness and readiness throughout the various sectors; determine the adequacy of an owner or operator's transportation-related security measures; and identify security gaps. TSA, for example, could inspect and evaluate for emerging or potential security threats based on intelligence indicators to determine whether the owner or operator's strategies and security measures are likely to deter deficiencies.

When PHMSA adopted its security regulations, it was stated that these regulations were "the first step in what may be a series of rulemakings to address the security of hazardous materials shipments." 68 FR 14511. PHMSA also noted that TSA "is developing regulations that are likely to impose additional requirements beyond those established in this final rule" and stated that it would "consult and coordinate with TSA concerning security-related hazardous materials transportation regulations * * *" Id. In this regard, note that under § 1512 of the 9/11 Commission Act and delegated

authority from the Secretary of Homeland Security, TSA must promulgate regulations establishing standards and guidelines for developing and implementing vulnerability assessments and security plans for "high-risk" railroad carriers. After TSA promulgates these regulations, these railroad carriers would be required to submit vulnerability assessments and security plans to DHS for review and approval. In addition, § 1517 of the 9/11 Commission Act requires DHS to develop and issue regulations for a training program to prepare railroad frontline employees for potential security threats and conditions.

The TSA regulations are intended to supersede the PHMSA security plan and security training requirements for railroad carriers that will be subject to the TSA regulations. Once these TSA regulations have been issued, the PHMSA security plan and security training requirements for railroad carriers that will be subject to the TSA regulations will be reevaluated and revised as appropriate.

We worked closely with TSA to align our proposed list of materials subject to security plans and the TSA Highway Security Sensitive Hazardous Materials (HSSM) list. TSA's HSSM list is to be used in conjunction with voluntary security practices (referred to as Security Action Items or SAIs) to increase the security of certain hazardous materials transported by motor vehicle. As a result, the PHMSA proposal and the TSA list are very similar; however, there are some minor differences. As provided below, in four instances our proposal is more restrictive than the TSA list.

1. We require all materials that meet the definition of a PIH material to have a security plan; TSA set thresholds of 5 lbs for Hazard Zone A and B and bulk for Zones C and D.
2. We include flammable liquids in PG III (*i.e.*, diesel fuel, kerosene, jet fuel, fuel oil) and TSA does not.
3. Our proposal includes any quantity of desensitized explosives in Division 4.1 and TSA lists materials by identification number.
4. For infectious substances, the TSA list does not include the USDA list of select agents or overlapping agents and toxins in 43 CFR 73.4.

The security plan requirements established by the HMR are to be used as a baseline for security planning. Though there are some minor differences between our proposal and the TSA list, the overall approach taken by the two agencies in identifying materials that should be subject to security based requirements is

consistent and supported by industry associations, offerors, carriers, and private citizens, as evidenced by the comments submitted in response to our ANPRM. Please submit any additional comments regarding the alignment of our proposed list with the TSA HSSM list during the comment period for this NPRM. Interested persons may submit their comments through the Federal eRulemaking Portal (on the Web site <http://www.regulations.gov>) under PHMSA docket number PHMSA-06-25885 by the date provided in the **DATES** section of this rulemaking.

TSA, PHMSA, FMCSA, and FRA will continue to work together in the development of hazardous materials transportation security planning regulations and standards. TSA may issue security planning regulations in the future; if such an action is taken we will reconsider our security plan requirements for the motor carriers that would be subject to TSA's regulations. As TSA develops security planning regulations applicable to hazardous materials, TSA will carefully consider how those regulations should relate to the HMR and will work with PHMSA, FMCSA, and FRA to avoid unnecessary duplication.

As it implements its transportation security authority, TSA may identify a need to review transportation security plans developed and implemented in accordance with subpart I of part 172 of the HMR. Under ATSA, TSA has the authority to "ensure the adequacy of security measures for the transportation of cargo" 49 U.S.C. 114(f)(10) and to "oversee the implementation, and ensure the adequacy, of security measures at airports and other transportation facilities" 49 U.S.C. 114(f)(11). Therefore, parties subject to this regulation must allow TSA and other authorized DHS officials, at any time and in a reasonable manner, without advance notice, to enter and inspect and must provide TSA inspectors with a copy of any security-related document required by the HMR or pursuant to TSA's statutory or regulatory authorities. This includes security plans and training documents required under 49 CFR part 172. However, TSA does not have the authority to directly enforce DOT safety or security requirements established in the HMR. If, in the course of an inspection of a railroad or motor carrier or a rail or highway hazardous material shipper or receiver, TSA identifies evidence of non-compliance with a DOT safety or security regulation, TSA will provide the information to FRA (for rail) or FMCSA (for motor carriers) and PHMSA for appropriate action.

Similarly, if a DOT inspector identifies evidence of non-compliance with a TSA security regulation or identifies other security deficiencies, DOT will provide the information to TSA for appropriate action.

V. Regulatory Analyses and Notices

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

This rulemaking is considered a significant regulatory action under section 3(f) of Executive Order 12866 and the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11032). This NPRM was reviewed by the Office of Management and Budget.

Executive Order 12866 requires agencies to regulate in the “most cost-effective manner,” to make a “reasoned determination that the benefits of the intended regulation justify its costs,” and to develop regulations that “impose the least burden on society.” Because this NPRM proposes to narrow the list of materials for which security plans are required, it will reduce the number of shippers and carriers required to develop security plans in accordance with subpart I of part 172 of the HMR. It is estimated that about 10,119 entities would no longer be subject to current security plan and associated in-depth training requirements. The annual benefit resulting from the proposals in this NPRM is estimated to be about \$3.6 million—\$2.8 million in avoided costs related to development of security plans and \$0.8 million in cost savings for associated training. Evaluated over a 15-year period at the standard discount rate of 7%, the estimated net present value of the cost savings is approximately \$32.6 million. The regulatory impact assessment is accessible by PHMSA docket number (PHMSA-06-25885) through the Federal eRulemaking Portal (<http://www.regulations.gov>).

B. Executive Order 13132

This proposed rule has been analyzed in accordance with the principles and criteria set forth in Executive Order 13132 (“Federalism”). Any rule resulting from this rulemaking will preempt State, local and Indian tribe requirements but will not have substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

C. Executive Order 13175

This proposed rule was analyzed in accordance with the principles and criteria set forth in Executive Order 13175 (“Consultation and Coordination with Indian Tribal Governments”). Because this proposed rule does not have tribal implications, and does not impose substantial direct compliance costs, the funding and consultation requirements of Executive Order 13175 do not apply.

D. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires an agency to review regulations to assess their impact on small entities unless the agency determines that a rule is not expected to have a significant impact on a substantial number of small entities. PHMSA has determined that, while the requirements of the proposed rule would apply to a substantial number of small entities, the economic impact on those small entities would not be substantial.

As indicated above, about 10,119 entities would no longer be subject to current security plan and in-depth training requirements if the proposals in this NPRM are adopted. These entities are persons who offer for transportation or transport hazardous materials in commerce. Unless alternative definitions have been established by the agency in consultation with the Small Business Administration (SBA), the definition of “small business” has the same meaning as under the Small Business Act. Since no such special definition has been established, the thresholds published by SBA for industries subject to the HMR are utilized. Just under 90% of shippers and carriers affected by the proposals in this NPRM are small businesses.

Based on an analysis of the potential benefits of the proposals in this NPRM, PHMSA concludes that, while the proposed rule would apply to a substantial number of small entities, it will not have a significant economic impact on those small entities. For a small business that would no longer be subject to the security plan requirements and associated in-depth training requirements, the cost savings would total between \$332 and \$437 annually.

E. Paperwork Reduction Act

PHMSA currently has an approved information collection under OMB Control Number 2137-0612, “Hazardous Materials Security Plans” with an expiration date of May 31, 2009. This NPRM may result in a decrease in

the annual burden and costs under OMB Control Number 2137-0612 due to proposed changes to revise the list of materials for which hazardous materials transportation security plans are required.

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

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

OMB Control No. 2137-0612:

Decrease in Annual Number of Respondents: 10,119.

Decrease in Annual Responses: 10,119.

Decrease in Annual Burden Hours: 55,655.

Decrease in Annual Burden Costs: \$2,782,750.

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

Requests for a copy of this information collection should be directed to Deborah Boothe or T. Glenn Foster, Office of Hazardous Materials Standards (PHH-11), Pipeline and Hazardous Materials Safety Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590-0001, Telephone (202) 366-8553.

Address written comments to the Dockets Unit as identified in the **ADDRESSES** section of this rulemaking. We must receive comments regarding information collection burdens prior to the close of the comment period identified in the **DATES** section of this rulemaking. In addition, you may submit comments specifically related to the information collection burden to the PHMSA Desk Officer, Office of Management and Budget, at fax number 202-395-6974. If these proposed requirements are adopted in a final rule, PHMSA will submit the revised information collection and

recordkeeping requirements to OMB for approval.

F. 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 contained in the heading of this document can be used to cross-reference this action with the Unified Agenda.

G. 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 \$132 million or more to either State, local or tribal governments, in the aggregate, or to the private sector, and is the least burdensome alternative that achieves the objective of the rule.

H. Environmental Assessment

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

Purpose and Need. The current security plan requirements, which became effective on September 25, 2003, apply to shipments of placarded loads of hazardous materials and to select agents. PHMSA has received two petitions for rulemaking requesting a review and reevaluation of the requirements. The petitioners cite several examples of hazardous materials that, based on hazard class and quantity, require placarding under the HMR and, therefore, are subject to security plan requirements. Examples include automobile batteries, inks, paint, and flavoring extracts. Petitioners suggest that it is highly unlikely a terrorist would use such materials to cause loss of life, destruction of property, or damage to the environment.

PHMSA agrees with the petitioners that the list of materials for which security plans are required should be revised. Since 2003, both the industry and the government have had four years

of experience in evaluating security risks associated with specific hazardous materials and transportation environments and identifying appropriate measures to address those risks. The revisions proposed in this NPRM are based on an evaluation of possible security threats posed by specific types and classes of hazardous materials and are intended to ensure that the security plan requirement applies only to those materials that present a significant security threat in transportation based on the hazard class and packing group of the material and the quantity or volume transported.

Alternatives. PHMSA considered the following alternatives:

No action—Under this alternative, security plan requirements would continue to apply to shipments of placarded loads of hazardous materials and to select agents, including some materials that do not pose a transportation security risk. This alternative is not risk-based and results in the over-regulation of materials that are not likely to be used in a terrorist or criminal act. This action is not recommended.

Require security plans only for materials subject to FMCSA permit regulations—Under this alternative, security plan requirements would apply only to shipments of hazardous materials subject to safety permit requirements in accordance with FMCSA regulations at 49 CFR part 385. A safety permit is required for certain shipments of radioactive materials, explosives, PIH materials, and compressed or refrigerated methane or liquefied natural gas. This alternative would not include a number of materials that pose a significant security risk, including flammable gases, flammable liquids, desensitized explosives, dangerous when wet materials, oxidizing materials, organic peroxides, poisons, and select agents. Selection of this alternative could result in significant adverse environmental impacts as a result of a terrorist or criminal action using such materials. This alternative is not recommended.

Adopt UN Recommendations Criteria for Security Plan Requirements—Under this alternative, security plans would be required for the materials identified in the UN Recommendations as high consequence dangerous goods—that is, materials with the potential for mis-use in a terrorist incident that may produce serious consequences such as mass casualties or mass destruction. The UN list of high consequence dangerous goods includes most of the hazardous materials that pose a significant transportation security risk. The

materials that would no longer be subject to security planning requirements are unlikely to be targeted for criminal or terrorist use; therefore, the adverse environmental consequences of this alternative are expected to be minimal. With some modifications, as detailed in this NPRM, this is the selected alternative.

Analysis of Environmental Impacts. Hazardous materials are substances that may pose a threat to public safety or the environment during transportation because of their physical, chemical, or nuclear properties. The hazardous material regulatory system is a risk management system that is prevention-oriented and focused on identifying a safety hazard and reducing the probability and quantity of a hazardous material release. Hazardous materials are categorized by hazard analysis and experience into hazard classes and packing groups. The regulations require each shipper to classify 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 through use of the hazard class, packing group, and proper shipping name on the shipping paper and the use of 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 to a low hazard Packing Group III material. The quality, damage resistance, and performance standards of the packaging in each packing group are appropriate for the hazards of the material transported.

Releases of hazardous materials, whether caused by accident or deliberate sabotage, can result in explosions or fires. Radioactive, toxic, infectious, or corrosive hazardous materials can have short- or long-term exposure effects on humans or the environment. Generally, however, the hazard class definitions are focused on the potential safety hazards associated with a given material or type of material rather than the environmental hazards of such materials.

Under the HMR, hazardous materials may be transported by aircraft, vessel, rail, and highway. The potential for environmental damage or contamination exists when packages of hazardous materials are involved in accidents or en route incidents resulting from cargo shifts, valve failures, package failures,

loading, unloading, collisions, handling problems, or deliberate sabotage. The release of hazardous materials can cause the loss of ecological resources and the contamination of air, aquatic environments, and soil. Contamination of soil can lead to the contamination of ground water. For the most part, the adverse environmental impacts associated with releases of most hazardous materials are short-term impacts that can be reduced or eliminated through prompt clean-up/decontamination of the accident scene.

The security plan requirements in subpart I of part 172 of the HMR are intended to reduce the potentially catastrophic consequences, including adverse environmental consequences, of a criminal or terrorist incident involving hazardous materials in transportation. A 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 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. For 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. For 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. For 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.

This NPRM proposes to narrow the list of materials for which a security plan would be required to ensure that the security plan regulations are targeted to those materials that pose a significant transportation security risk. It is possible to envision scenarios in which hazardous materials other than those identified in this NPRM could be used to inflict serious damage in a terrorist or criminal incident. However, our assessment of the security risks associated with such materials, detailed elsewhere in this preamble, suggests that they are unlikely to be targeted. PHMSA therefore concludes that there are no significant environmental impacts associated with this NPRM.

Consultation and Public Comment. As discussed above, PHMSA published an ANPRM and hosted a public meeting to solicit public comments concerning whether the list of materials for which

security plans are currently required should be modified. Commenters were asked to address a number of issues related to the identification of materials that pose a security threat sufficient to justify preparation and implementation of a security plan. Thirty-four comments were received from industry associations, shippers, carriers, and private citizens. In addition, six people made presentations at the public meeting.

Interested persons are invited to submit comments on the potential environmental, safety, and other impacts of the proposals in this NPRM.

List of Subjects in 49 CFR Part 172

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

In consideration of the foregoing, PHMSA is proposing 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.

2. In § 172.704, paragraphs (a)(5), and (c)(2) are revised to read as follows:

§ 172.704 Training requirements.

(a) * * *

(5) *In-depth security training.* Each hazmat employee of a person required to have a security plan in accordance with subpart I of this part who handles hazardous materials covered by the plan, performs a regulated function related to the hazardous materials covered by the plan, or is responsible for implementing the plan must be trained concerning the security plan and its implementation. Security training must include company security objectives, organizational security structure, specific security procedures, specific security duties and responsibilities for each employee, and specific actions to be taken by each employee in the event of a security breach.

* * * * *

(c) * * *

(2) *Recurrent training.* A hazmat employee must receive the training required by this subpart at least once every three years. For in-depth security training required under paragraph (a)(5) of this section, a hazmat employee must

be trained at least once every three years or, if the security plan for which training is required is revised during the three-year recurrent training cycle, within 90 days of implementation of the revised plan.

* * * * *

3. In § 172.800, paragraph (b) is revised to read as follows:

§ 172.800 Purpose and applicability.

* * * * *

(b) *Applicability.* Each person who offers for transportation in commerce or transports in commerce one or more of the following hazardous materials must develop and adhere to a transportation security plan for hazardous materials that conforms to the requirements of this subpart:

(1) Any quantity of a Division 1.1, 1.2, or 1.3 material;

(2) Any quantity of a Division 1.4 material, identified in the Hazardous Materials Table in § 172.101 of this part with UN identification numbers UN 0104, UN 0237, UN 0255, UN 0267, UN 0289, UN 0361, UN 0365, UN 0366, UN 0440, UN 0441, UN 0455, UN 0456, and UN 0500;

(3) Any quantity of a Division 1.5 material;

(4) 3,000 L (793 gallons) or more in a single packaging of a Division 2.1 material;

(5) 3,000 L (793 gallons) or more in a single packaging of a Division 2.2 material with a subsidiary hazard of 5.1;

(6) Any quantity of a material poisonous by inhalation, as defined in § 171.8 of this subchapter;

(7) 3,000 L (793 gallons) or more in a single packaging of a Class 3 material;

(8) Any quantity of a desensitized explosive meeting the definition of a Class 3 or Division 4.1 material;

(9) 3,000 kg (6,614 lbs.) or more in a single packaging of a Division 4.2 material meeting the criteria for Packing Group I or II;

(10) Any quantity of a Division 4.3 material;

(11) 3,000 L (793 gallons) or more in a single packaging of a Division 5.1 liquid meeting the criteria for Packing Group I or II;

(12) 3,000 L (793 gallons) of Division 5.1 perchlorates, ammonium nitrate, ammonium nitrate fertilizers, or ammonium nitrate emulsions or suspensions or gels;

(13) Any quantity of an organic peroxide, Type B, liquid or solid, temperature controlled;

(14) Any quantity of a Division 6.1 material meeting the criteria for Packing Group I;

(15) 3,000 L (793 gallons) or more in a single packaging of a Division 6.1

material meeting the criteria for Packing Group II or III;

(16) A select agent or toxin regulated by the Centers for Disease Control and Prevention under 42 CFR part 73 or the United States Department of Agriculture under 9 CFR part 121;

(17) 3000 A₂ in a single package of Class 7 material or the following radionuclides at the thresholds indicated:

| Radionuclide | Transport security threshold (TBq) |
|--------------|------------------------------------|
| Am-241 | 0.6 |
| Au-198 | 2 |
| Cd-109 | 200 |
| Cf-252 | 0.2 |
| Cm-244 | 0.5 |
| Co-57 | 7 |
| Co-60 | 0.3 |
| Cs-137 | 1 |
| Fe-55 | 8000 |
| Ge-68 | 7 |
| Gd-153 | 10 |
| Ir-192 | 0.8 |
| Ni-63 | 600 |
| Pd-103 | 900 |
| Pm-147 | 400 |
| Po-210 | 0.6 |
| Pu-238 | 0.6 |
| Pu-239 | 0.6 |
| Ra-226 | 0.4 |
| Ru-106 | 3 |
| Se-75 | 2 |
| Sr-90 | 10 |
| Tl-204 | 200 |
| Tm-170 | 200 |
| Yb-169 | 3 |

For mixtures of radionuclides, determination of whether or not the transport security radioactivity threshold has been met or exceeded can be calculated by summing the ratios of activity present for each radionuclide divided by the transport security threshold for that radionuclide. If the sum of the fractions is less than 1, then the radioactivity threshold for the

mixture has not been met or exceeded. This calculation can be made with the formula:

$$\sum_i (A_i/T_i) < 1$$

Where:

A_i = activity of radionuclide i that is present in a package (TBq)

T_i = transport security threshold for radionuclide i (TBq)

(18) 3,000 L (793 gallons) or more in a single packaging of a Class 8 material meeting the criteria for Packing Group I.

4.1. In § 172.802, revise paragraph (a) introductory text, redesignate paragraph (b) as paragraph (c) and revise it, and add new paragraphs (b) and (d), to read as follows:

§ 172.802 Components of a security plan.

(a) The security plan must include an assessment of transportation security risks for shipments of the hazardous materials listed in § 172.800, including site-specific or location-specific security risks, and appropriate measures to address the assessed risks. Specific measures put into place by the plan may vary commensurate with the level of threat at a particular time. At a minimum, a security plan must include the following elements:

* * * * *

(b) The security plan must also include the following:

(1) Identification by job title of the senior management official responsible for overall development and implementation of the security plan;

(2) Security duties for each position or department that is responsible for implementing the plan or a portion of the plan and the process of notifying employees when specific elements of

the security plan must be implemented; and

(3) A plan for training hazmat employees in accordance with § 172.704 (a)(4) and (a)(5) of this part.

(c) The security plan, including the transportation security risk assessment developed in accordance with paragraph (a) of this section, must be in writing and must be retained for as long as it remains in effect. The security plan must be reviewed at least annually and revised and/or updated as necessary to reflect changing circumstances. The most recent version of the security plan, or portions thereof, must be available to the employees who are responsible for implementing it, consistent with personnel security clearance or background investigation restrictions and a demonstrated need to know.

When the security plan is updated or revised, all employees responsible for implementing it must be notified and all copies of the plan must be maintained as of the date of the most recent revision.

(d) Each person required to develop and implement a security plan in accordance with this subpart must maintain a copy of the security plan (or an electronic image thereof) that is accessible at, or through, its principal place of business and must make the security plan available upon request, at a reasonable time and location, to an authorized official of the Department of Transportation or the Department of Homeland Security.

Issued in Washington, DC on September 3, 2008, under authority delegated in 49 CFR part 106.

Theodore L. Willke,

Associate Administrator for Hazardous Materials Safety.

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