

DEPARTMENT OF TRANSPORTATION**Research and Special Programs Administration****49 CFR Parts 171, 172, 173, 174, 179****[Docket No. HM-216; Notice No. 95-16]****RIN 2137-AC66****Transportation of Hazardous Materials By Rail; Miscellaneous Amendments****AGENCY:** Research and Special Programs Administration (RSPA), DOT.**ACTION:** Notice of Proposed Rulemaking (NPRM).

SUMMARY: RSPA is proposing to incorporate into the Department's Hazardous Materials Regulations (HMR) a number of changes to rail requirements based on rulemaking petitions from industry and RSPA initiatives. This action is necessary to update the regulations and to respond to petitions for rulemaking. The intended effect of these regulatory changes is to improve safety and reduce costs to offerors and transporters of hazardous materials.

DATES: Comments must be received on or before February 22, 1996.

ADDRESSES: Address comments to Dockets Unit (DHM-30), Hazardous Materials Safety, RSPA, U.S. Department of Transportation, Washington, DC 20590-0001. Comments should identify the docket and notice number and be submitted, when possible, in five copies. Persons wishing to receive confirmation of receipt of their comments should include a self-addressed, stamped postcard. The Dockets Unit is located in Room 8421 of the Nassif Building, 400 Seventh Street S.W., Washington, DC 20590-0001. Office hours are 8:30 am to 5:00 pm Monday through Friday, except on public holidays when the office is closed.

FOR FURTHER INFORMATION CONTACT: Beth Romo, telephone (202) 366-4488, Office of Hazardous Materials Standards, Research and Special Programs Administration, Washington DC, 20590-0001, or James H. Rader, telephone (202) 366-0510, Office of Safety Assurance and Compliance, Federal Railroad Administration, Washington DC, 20590-0001.

SUPPLEMENTARY INFORMATION: This document proposes miscellaneous changes to rail requirements contained in the HMR. These proposed changes are based either on petitions for rulemaking submitted in accordance with 49 CFR 106.31 or agency initiative and are intended to reduce regulatory

burdens by simplifying or updating existing regulations.

This rule, as proposed, is consistent with the goals of President Clinton's Regulatory Reinvention Initiative. The President directed Federal agencies to review all agency regulations and eliminate or revise those that are outdated or in need of reform. A notice issued April 4, 1995 by RSPA requested comments on regulatory reform (Docket HM-222; 60 FR 17049) and announced a comprehensive review of the HMR to identify provisions that are candidates for elimination, revision, clarification, or relaxation. Certain proposed changes in this document reflect the results of this review.

I. Summary of Proposed Regulatory Changes by Section

Listed below is a section-by-section summary of the proposed changes and, where applicable, the assigned petition number.

Part 171

Section 171.7. Various American Society for Testing and Materials (ASTM) standards would be updated to reflect the most current version. Other ASTM standards that no longer would be referenced in the proposed revision of § 179.12 would be removed.

Part 172

Section 172.101: The Hazardous Materials Table. In the Hazardous Materials Table, several entries would be revised based on petitions for rulemaking and agency initiative. Proposed revisions include:

—Twenty-nine entries would be revised by removing Special Provision B12 assigned to those entries in Column (7). This special provision requires the marking of tank cars with the proper shipping name or common name of the material. RSPA is proposing to limit the applicability of this marking requirement to certain materials that pose a higher risk in transportation.

—For the entry "Dimethylhydrazine, unsymmetrical", in Column (7) Special Provision B79 would be removed. "Dimethylhydrazine, unsymmetrical" currently is assigned Special Provisions B74 and B79. Special Provision B74 requires the use of a tank car conforming to a Class 105S, 106, 110, 112J, or 114J. Special Provision B79 requires each tank car to have a tank head puncture system if the tank was constructed prior to April 1, 1989. Because Special Provision B74 requires all tank cars to meet the requirements of B79,

referencing Special Provision B79 is unnecessary.

—For the entry for Calcium carbide, Special Provision B59 would be added for both Packing Group I and II entries. This special provision will authorize the continued use of Class AAR 207 tank cars for the transportation of calcium carbide after October 1, 1996.

Section 172.102. Special Provisions B4 and B10 would be revised to remove a prohibition on the use of Association of American Railroads (AAR) 206 tank cars. In the § 172.101 Hazardous Materials Table (HMT), each commodity assigned this special provision must be in a packaging authorized in § 173.243, which does not allow an AAR 206 tank car.

Special Provision B5 would be revised to authorize use of tank cars, constructed from other than aluminum plate, for ammonium nitrate fertilizer.

Consistent with proposed changes to tank car marking requirements discussed previously in conjunction with proposed changes to the Hazardous Materials Table, Special Provision B12 would be removed. The requirement to mark the proper shipping name or common name of a material on a tank car would be limited to certain materials that present a higher risk in transportation, as proposed in § 172.330.

Special Provisions B42, B65, B71, B72, B74, and B76 would be revised for clarity. RSPA and FRA have received numerous inquiries concerning the use of tank cars having higher test pressures than those authorized under these special provisions. RSPA is proposing to revise these provisions to clarify that any class tank car with a higher test pressure than authorized also may be used. Special Provisions B42, B65, and B76 also would be revised to authorize the optional marking of the tank to a lower pressure specification. The current regulations require the lower pressure specification marking for certain commodities. RSPA and FRA believe that tank cars qualified to meet a specific specification should be marked to indicate that specification. RSPA is proposing the optional marking requirement to authorize the remarking of qualified tank cars to the higher pressure specification. For example, currently tank cars transporting acetone cyanohydrin are required to conform to a DOT 105S, 112J, or 114J specification provided the tank test pressure is 300 psig or greater. In addition, the tank car specification must be remarked to indicate a tank test pressure of 200 psig, and each tank car must be equipped with a safety relief device having a start-

to-discharge pressure setting of 150 psig. RSPA is proposing that these tank cars remain marked at the higher pressure specification while maintaining the currently applied safety relief device (e.g., DOT 105S300W, Safety Valve 150 LB).

RSPA is proposing to remove a requirement in Special Provision B57 that the shipping name CHLOROPRENE must be marked on a tank car. This marking requirement is included in the proposed revision of § 172.330(a)(1). RSPA also is revising the first sentence of Special Provision B78 to specify test pressure and clarify which rail cars are authorized.

Section 172.203. Currently, rail carrier shipping paper requirements are contained in both Parts 172 and 174. In this notice, RSPA proposes to move the shipping paper requirements in Part 174 to Part 172. RSPA and FRA believe that by consolidating the shipping paper requirements, including additional shipping paper entries for tank cars containing the residue of a hazardous material, compliance will be improved. Paragraph (e)(2) currently references paragraph (e)(3) and § 174.25 for shipping paper description requirements for residues of hazardous materials in tank cars. These references would be replaced with a specific requirement to precede the basic shipping description with the wording "RESIDUE, LAST CONTAINED."

Paragraph (g)(1) also would be revised to reflect the incorporation of shipping paper requirements currently contained in Part 174 by a requirement to identify a rail car, freight container, transport vehicle, or portable tank that contains a hazardous material by "reporting mark and number."

Section 172.205. Based on a petition [P-1053] from AAR, RSPA would revise paragraph (f) for consistency with Environmental Protection Agency (EPA) hazardous waste manifest requirements for transportation by rail contained in 40 CFR 263.20(f).

Section 172.330. Paragraph (a)(1) would be revised to clarify marking requirements for tank cars. Marking requirements currently contained in § 172.102 special provisions and in Parts 173 and 179 would be incorporated into § 172.330 or removed as part of this revision. The requirement to mark the proper shipping name or common name of a hazardous material on a tank car would be limited to Division 2.1 and 2.3 materials, Division 2.2 materials in a Class DOT 107 tank car, anhydrous ammonia, ammonia solutions with more than 50% ammonia, bromine and bromine solutions, hydrogen cyanide,

chloroprene, and refrigerant or dispersant gases, as defined in § 173.115.

Section 172.510. Paragraph (a) would be revised to require the placement of each placard on a white square background for each class DOT 113 tank car used to transport a Division 2.1 (flammable gas) material. The white square background notifies railroad switching crews that the car may not be cut off while in motion. The current regulations only require rail cars containing Divisions 1.1 and 1.2 explosives, Division 2.3 Hazard Zone A materials and Division 6.1 PG I Hazard Zone A materials to have the white square background, but not the class DOT 113 tank car. This change will simplify the switching requirements for rail cars by communicating, through a white square background, that a class DOT 113 tank car transporting a Division 2.1 material may not be cut off while in motion. RSPA and FRA believe that this requirement will make it easier to train yard switching employees and reduce the potential for overspeed impacts. The inner support system for class 113 tank cars is designed to withstand loads producing accelerations of 7 "g" longitudinal, 3 "g" transverse, and 3 "g" vertical. Consequently, it is imperative that railroads shove this class of car to rest to prevent yielding of the support system.

Sections 172.510 and 172.526. Provisions applying to the specifications and use of RESIDUE placards would be removed in these sections. The RESIDUE placard is not required by any other mode and, because the information provided through a RESIDUE placard can be adequately conveyed through primary and subsidiary placards and shipping paper information, RSPA and FRA believe that this placard is unnecessary. Further, FRA reports that during the last six years its inspectors cited missing, faded, or incorrect placards on nearly 22,000 occasions. By removing the RESIDUE placard requirement, RSPA and FRA believe that offerors will use permanent adhesive placards, such as those used on highway vehicles, thereby increasing compliance with HMR placarding requirements. Also, RSPA and FRA understand that Transport Canada is considering removing the RESIDUE placard from its Transportation of Dangerous Goods Regulations to the extent that, in December 1993, it issued a newsletter asking for public comment. Such an action by Transport Canada would have a direct effect on transborder shipments; consequently, RSPA and FRA believe a proposal to

remove this requirement from the HMR is appropriate.

Part 173

Section 173.24b. RSPA is proposing to amend paragraph (a) to recognize the insulation properties of thermal protection applied to tank cars. The proposed rule would allow for a "mid-range" temperature for the calculation of outage and filling limits, provided the insulation qualities provide an overall thermal conductance at 15.5°C (60°F) of no more than 10.22 kilojoules per hour per square meter per degrees Celsius (0.5 Btu per hour per square foot per degree F) temperature differential. This proposal is based on a petition for rulemaking submitted by the Propane Gas Association of Canada [P-1251], developed in cooperation with Transport Canada.

Section 173.29. Paragraph (f) would be removed, consistent with the proposed removal of § 172.510(c).

Section 173.314. Paragraph (b)(5), which contains provisions for marking the proper shipping name of certain Class 2 materials on tank cars, would be removed because these provisions also appear in § 172.330. Paragraph (b)(6) would be redesignated (b)(5) and amended to revise requirements for heat-resistant gaskets. In 1988, the National Transportation Safety Board (NTSB) recommended that FRA: (1) establish performance standards for determining the acceptability of heat-resistant gaskets on tank cars; and (2) evaluate the effect on gasket compatibility and heat-resistant performance of sealants used for installing gaskets on tank cars. NTSB recommended that FRA establish performance criteria to decide what sealant is acceptable and conditions for its use. (Butadiene Release and Fire from GATX 55996 at the CSX Terminal Junction Interchange, New Orleans, Louisiana, September 8, 1987 (NTSB/HZM-88/01)). As a result of the NTSB recommendation, RSPA published an Advanced Notice of Proposed Rulemaking (ANPRM) on May 18, 1990, under Docket HM-175A [Notice 90-8; 55 FR 20242] requesting comments on gasket specifications and the use of sealant materials. Commenters to the ANPRM expressed concerns regarding the technical complications for defining gasket specifications in the regulations, since there are many variables in torquing values for the fitting closure/gasket combination and the chemical compatibility of the gasket material. In a Notice of Proposed Rulemaking (NPRM) published October 8, 1993 [58 FR 52574] under Docket HM-175A, RSPA and FRA announced that several

topics, including gasket specifications, raised in earlier notices either were too technically complex or insufficiently developed to address in that NPRM and would be handled in a separate rulemaking action.

Although the commenters to the ANPRM pointed out many technical complications associated with defining gasket specifications for all products authorized in tank cars, RSPA and FRA believe that a performance standard for heat-resistant gaskets is necessary for Division 2.1 materials and anhydrous ammonia that installed gaskets will not degrade at elevated temperatures (see § 173.314(b)(6) for current requirements). In this NPRM, RSPA is proposing a performance standard for heat-resistant gaskets based on information obtained from the Fluid Sealing Association's *Non Metallic Gasket Handbook*. The handbook shows that asbestos, a common heat-resistant gasket material, has a maximum temperature range of 230–340°C (450–650°F). Consequently, RSPA is proposing to specify that a heat-resistant gasket can survive temperatures at or above 230°C. This is comparable to the temperature indicated in the Fluid Sealing Association's handbook. This proposal also would expand the use of heat-resistant gaskets to all Division 2.3 materials.

Commenters stated that to seal a joint, the installed gasket is compressed (by applying a bolt load to the flange body surfaces) into the imperfection of the joint and a tight, leakproof barrier occurs. The use of sealants for installing gaskets is therefore unnecessary and may lead to gasket displacement. Based on these comments, RSPA is proposing to prohibit the use of sealants for installing gaskets on tank cars used to transport Division 2.1 and 2.3 materials and anhydrous ammonia.

RSPA also is proposing to authorize Class DOT 112J and 112T specification tank cars for the transportation of dimethyl ether. Currently, RSPA only authorizes the use of a DOT 105A300W tank car. This proposal is based on an exemption issued to Aeropres Corporation (DOT-E 11000) and a petition for rulemaking [P-1253]. RSPA also is proposing to remove Note 2 in paragraph (c) of the table. For the entry "Ammonia, anhydrous or ammonia solutions >50 percent ammonia" in the second column "Note 2" would be revised to read "Note 3". This would allow shippers to calculate the outage and filling limits for tank cars based on changes proposed in § 173.24b.

In addition, paragraph (i), which provides alternate settings for safety relief valves on tank car tanks used for

certain commodities, would be removed. Removal of this paragraph is consistent with the proposed consolidation of pressure relief device requirements in § 179.15.

Part 174

In 1985, AAR petitioned RSPA (P-983) to rewrite Part 174, stating that the regulations in this part are "awkwardly arranged, often redundant, and in many places obsolete." AAR supplied a complete rewrite of Part 174 as part of its petition. Subsequently, various rulemaking actions such as HM-175A (final rule adopted improved crashworthiness for tank cars), HM-201 (final rule adopted new methods of tank car testing), HM-181 (mandated performance packaging standards), HM-166 (implemented many detailed changes to the HMR), HM-197 (adopted new requirements for TOFC/COFC shipments), and HM-212 (considering new standards for tank car unloading and attendance) have addressed numerous suggestions contained in petition P-983. This notice proposes additional changes based on P-983, including simplification of standards for inspection of tank cars by railroads and revisions in documentation requirements of Part 174.

Section 174.3. This section prohibits a shipment of a hazardous material not prepared in accordance with Parts 171, 172, and 173 from being offered for transportation or transported by rail. The section would be revised to reflect language contained in Parts 175 and 177 for unacceptable hazardous materials shipments.

Section 174.8 through 174.10. Inspection requirements currently contained in §§ 174.8, 174.9 and 174.10 would be consolidated into § 174.9 to clarify a railroad's inspection duties at points of origination, interchange points and other locations where rail cars must be inspected. Sections 174.8 and 174.10 would be removed. Section 174.9 would require a railroad to inspect each rail car for compliance with the HMR and other conditions that may make the car unsafe for transportation.

Under FRA's Railroad Freight Car Safety Standards (FCSS [49 CFR Part 215]), each railroad must inspect a freight car at each location where it is placed in a train. The inspection must be made by: (1) a "designated inspector" under § 215.11; or (2) a train crew member where a designated employee is not on duty (see Appendix D to Part 215). As a rule, train crew members inspect for "imminent hazardous conditions" that are likely to cause an accident or casualty before the train arrives at its destination. Examples

provided in Appendix D include: car body leaning or listing to one side, objects dragging below, broken or missing safety appliance, lading leaking from a placarded hazardous materials car, and broken or extensively cracked wheel.

In addition to the requirements above, the HMR require an inspection of each placarded railcar when received in "interchange." This notice proposes to remove the requirement to inspect placarded railcars at interchange, simply because railroad operations now permit the interchange of railroad equipment in outlying locations, usually on mainline track, that may not be acceptable for the performance of a proper inspection. For example, in "run-through" train operations, the train crew of the receiving railroad simply assumes responsibility of the train from the delivering train crew. No locomotives or railcars are added or removed. Since the train may exceed one mile in length, portions of the train, including portions that may have a placarded railcar containing a hazardous material, may not be accessible to the receiving train crew because of bridges, tunnels, or terrain.

As proposed, RSPA would make the locations of inspection consistent with those in the FCSS, issued by the FRA. RSPA does not intend to change the railroad's current inspection practices nor require the railroad to inspect railcars containing a hazardous material on a more frequent basis than the required presently in the HMR and FCSS. The proposed rule simply makes clear that a railroad must inspect a hazardous material laden car at locations that now require an inspection under the FCSS (by the train crew or a designated employee, where such employees are on duty).

The proposed rule further clarifies that a railroad employee need not climb each railcar to determine if, in fact, the railcar conforms to the HMR. These inspections may be performed at "ground level." Where the rule proposes to require a ground level inspection for "securement of closures," RSPA and FRA believe railroad employees can determine, from the ground, whether or not protective housings are open, whether or not manway openings (on non- or low-pressure tank cars) are in the "up" position, and whether or not the manway bonnet cover (on pressure tank cars) is open. At the bottom of the car, FRA and RSPA believe that railroad employees can determine whether or not the bottom outlet cap is in the proper, applied position.

Section 174.11. Section 174.11 would be removed because it merely references

§ 171.12a for transportation of Canadian shipments or packagings by rail car within the U.S.

Section 174.18. Section 174.18 concerning the handling of astray packages of hazardous materials is obsolete; therefore this section would be removed.

Section 174.24. Shipping paper requirements for rail carriers in Part 174 would be moved to Part 172. Revised § 174.24 would cross-reference shipping paper requirements in Part 172.

Section 174.25. When an accident occurs on the railroad, it is customary to identify the transport vehicle or freight container involved by the use of reporting marks. These marks are used for routing, cost accounting, and for tracing (or locating) individual shipments in the transportation system. If an emergency responder were to ask about the contents of an individual shipment by reporting mark, a rail carrier could provide immediate emergency response information, a copy of the shipping paper, routing information, and the name, telephone number, and location of the shipper. This information is much more detailed than simply conveying to the emergency responder the type of placard applied to the packaging. Consequently, RSPA proposes to remove the "placard notation" requirement since it is outdated for emergency response communication. Removing the placard notation requirement would not, however, prohibit individual rail carriers from adopting comparable requirements, if they so choose.

RSPA also is proposing to remove the requirement for a "placard endorsement" placed on a waybill near the reporting mark of each rail car, freight container, transport vehicle, or portable tank that contains a hazardous material when transported by rail. The current rule requires a unique endorsement based on the hazard class of the material shipped. Exceptions to the placard endorsement are provided for materials that do not require placarding (e.g., less than 1,001 pounds of a material listed in § 172.504 Table 2, in most types of transport vehicles or freight containers), Class 9 materials, and combustible liquids). RSPA is proposing to remove this requirement because technological advances in the railroad industry have made the use of the placard endorsement no longer necessary to communicate the presence of hazardous materials to railroad workers. As a general rule, railroads now use electronic data interchange and computer generated train consists (or manifests) to communicate the presence of these materials. Responders and

railroad workers rely on the hazardous materials description and emergency response information on train consists and printed waybills rather than the placard endorsement. As stated earlier, removing the endorsement would not prohibit individual rail carriers from adopting comparable requirements at their discretion.

Other shipping paper requirements in this section, including those for tank cars containing the residue of a hazardous material, would either be removed or moved to Part 172.

Section 174.26. Paragraph (a) would be removed because if a carrier complies with paragraph (b), the carrier also is complying with paragraph (a), except for the "consecutively numbered notice." Based on current railroad technology and computer-based information systems, this notice is obsolete. Paragraphs (b) and (c) would be renumbered paragraphs (a) and (b), respectively. Newly designated paragraph (b) would be revised to reference shipping paper requirements of Part 172 and specify use of other forms of car movement documents.

Section 174.45. This section would be removed because it merely references §§ 171.15 and 171.16 and is redundant.

Sections 174.47 and 174.48. These sections contain requirements for forwarding shipments in violation of the HMR and damaged or leaking packages. The provisions in these sections would be consolidated into revised § 174.50.

Section 174.49. This section concerns the use of open-flame lanterns for the inspection of transport vehicles known to contain flammable liquids and gases. The use of open-flame lanterns is obsolete; therefore, this section would be removed.

Section 174.50. This section would be revised by consolidating requirements of §§ 174.47, 174.48, and 174.50 and by removing all obsolete provisions. These sections stipulate that railroads may not forward damaged packages, leaking tank cars (except for necessary short moves), or any tank car found in non-compliance with the HMR, except under the terms of a DOT exemption. RSPA is proposing to simplify the overall principle in these sections by prohibiting the movement of packages that do not conform to the HMR. Packages other than tank cars would have to be repaired, reconditioned, or overpacked prior to subsequent movement. Tank cars would have to be repaired or be moved under conditions approved by FRA's Associate Administrator for Safety. This proposed regulation would allow, for example, the movement of a tank car with an

emergency valve repair or capping kit under approved conditions.

Section 174.55. This section would be revised for clarity. Based on a petition [P-1042] submitted by AAR, suggesting that certain provisions of the existing section are meaningless or confusing, RSPA is proposing to streamline this section.

Section 174.67. The first sentence in paragraph (k) would be revised to remove the requirement for heater coil inlet and outlet pipes to be left open. This proposed revision is based on a petition [P-942] indicating that these pipes need to be left open only 5% of the time, when steam is applied.

Section 174.69. This section would be removed, based on a petition from AAR [P-1139], because it conflicts with applicable requirements in § 172.514.

Section 174.85. Based on corresponding changes in §§ 172.510 and 172.526 to remove provisions for a RESIDUE placard, paragraph (c) would be revised to reference a rail car containing a residue of a hazardous material rather than a rail car placarded "RESIDUE".

Part 179

The following sections would be revised by updating certain ASTM specifications and deleting others that are no longer used, based on a petition [P-1023] from AAR: §§ 179.100-7, 179.100-10, 179.100-20, 179.102-1, 179.102-2, 179.200-7, 179.200-24, 179.201-5, and 179.300-7.

Sections 179.12 through 179.12-7. Sections 179.12-1 through 179.12-7 would be removed and § 179.12 would be revised by incorporating provisions from §§ 179.12-1 and 179.12-5. The design and materials of construction for interior heater coils require AAR approval. This NPRM proposes to remove the DOT specification requirements and allow AAR greater flexibility in approving heater system designs.

Section 179.15. This section would be added to consolidate pressure relief device requirements and adopt provisions to: (1) increase the start-to-discharge pressure of safety relief devices for tanks that have a burst pressure of 240 psig, while allowing the continued use of existing cars; (2) allow for a reduced orifice in the upstream nozzle of a pressure relief device to accommodate pressure surges; (3) increase the rupture disc burst pressure for cars so equipped; (4) standardize the start-to-discharge pressure setting for all commodities and tank car specifications; and (5) align the start-to-discharge pressure setting for tank cars with that prescribed by the ASME code.

In this notice, a pressure relief valve means a pressure relief device that is designed to open rapidly, or by opening in proportion to the increase in pressure over the opening pressure, and designed to reclose and prevent further flow of vapor after normal conditions have been restored. A nonreclosing pressure relief device is a pressure relief device actuated by inlet static pressure and designed to function by rupturing (bursting) a pressure containing disc (rupture disc) and remains open after operation.

Two ANPRMs published under Docket HM-175A (May 15, 1990; 55 FR 20242, and August 29, 1990; 55 FR 35327) solicited comments on potential costs and safety benefits derived from improvements to the crashworthiness of tank cars and restrictions on continued use of tank cars in hazardous materials service that no longer meet current safety requirements. RSPA issued the ANPRM, in part, to address an AAR petition requesting an increase in the start-to-discharge pressure of a nonreclosing pressure relief device and a reduction in the size of the upstream nozzle (P-1083). Commenters responding to the ANPRM suggested that tanks with a 60 psig test pressure and built with 7/16 inch wall thicknesses could be converted to a 100 psig tank test pressure (subject to an inspection and AAR approval), but opposed any conversion of DOT 115A or AAR 206W tank cars because of wall thickness. Most commenters supported increasing the start-to-discharge pressure of a nonreclosing pressure relief device to prevent rupture of the disc from in-transit pressure surges.

The Railway Progress Institute (RPI) suggested in its comment that the optimum flow capacity for a pressure relief device is the minimum required to prevent tank car rupture in fire conditions. The RPI and other commenters opposed increasing the flow capacity of certain pressure relief valves and stated that both large and small capacity pressure relief valves discharge the same amount of product. Large capacity pressure relief valves, as opposed to small capacity valves, release large amounts of product for brief durations.

A petition for rulemaking submitted by the Chemical Manufacturers Association (CMA) supported the ANPRM and AAR's petition (P-1270). CMA suggested that reclosing pressure relief valves should have a start-to-discharge pressure setting consistent with several DOT exemptions for nonreclosing pressure relief devices (i.e., 165 percent of the tank test

pressure or 33 percent of the tank burst pressure).

RSPA published an NPRM under Docket HM-175A on October 8, 1993 (58 FR 52574) but did not propose changes to the HMR concerning pressure relief devices. Based on the merit of comments to Docket HM-175A and a petition for rulemaking [P-1083], RSPA is proposing to consolidate the pressure relief device requirements now contained in §§ 173.314(i), 179.100-15, 179.200-18, 179.201-7, and 179.220-19 into a new § 179.15. This proposal incorporates a performance-based flow capacity requirement to prevent excess pressure build-up within the tank, under fire conditions for both reclosing and nonreclosing pressure relief devices. Further, RSPA is not proposing an increase in the flow capacity of a pressure relief device (including those devices used on tank cars transporting materials toxic by inhalation), based on comments received to Docket HM-175A.

For most tank car specifications, the current start-to-discharge pressure setting for pressure relief devices is 30 percent of the tank burst pressure (33 percent of the tank burst pressure for certain commodities listed in § 173.314(i) and in two DOT exemptions: DOT-E 10288 and DOT-E 10328). Flow capacity of the pressure relief device is set at 33 percent of the tank burst pressure. For nonpressure tank car specifications, however, the start-to-discharge pressure setting of a pressure relief device is about 15 percent of the tank burst pressure. To allow for an equivalent start-to-discharge pressure setting for both pressure and nonpressure tank car specifications, RSPA is proposing a start-to-discharge pressure setting of up to 33 percent of the tank burst pressure for all commodities and specifications. Based on the physical-chemical properties of the material (vapor pressure, static head, and gas padding pressure of the product within the tank), this notice also proposes to authorize a reduction in the start-to-discharge pressure setting. This proposal is consistent with Section VIII, UG-125, of the American Society of Mechanical Engineers Pressure Vessels Code (ASME) and an exemption (DOT-E 11184) that authorizes the transportation of certain flammable liquid products in DOT 105J300W tank cars having a start-to-discharge pressure setting of 75 psig as opposed to 225 psig. Further, because of costs associated with modifying existing tank cars to conform to this proposed requirement and because there is no apparent safety reason to require any

modification to existing tank cars, this NPRM proposes to allow the continued use of tank cars having a start-to-discharge pressure set at 15 percent of burst.

In addition, this notice proposes that a tank car equipped with a nonreclosing pressure relief device must have installed a rupture disc designed to burst at 33 percent of the tank burst pressure within one year after any final rule issued in this docket. For example, a DOT 111A100W2 tank car would have a rupture disc designed to burst at 165 psig within one year after any final rule issued in this docket. This proposal is based on provisions in several exemptions (e.g., DOT-E 10118 and DOT-E 10354), several petitions for rulemaking, and the number of rupture disc failures reported to RSPA's Hazardous Materials Information System.

The location for pressure relief devices would be revised in proposed paragraph (g) to allow for the mounting of pressure relief valves on a hinged manway cover plate. The current regulations require mounting a pressure relief valve on the tank dome, manway cover plate, or on a nozzle on top of the tank shell. This notice proposes to require a pressure relief device to communicate with the vapor space above the lading.

Sections 179.100-15, 179.200-18, 179.201-7, and 179.220-19. These sections contain provisions for safety relief devices. For consistency with the proposed consolidation of safety relief device provisions in § 179.15, RSPA is proposing to remove these sections from the HMR.

Sections 179.101-1 and 179.201-1. RSPA proposes to revise individual specification requirements for pressure tank cars and non-pressure tank cars, respectively. The proposed revisions will correct many typographical errors and remove several special references that are no longer applicable. RSPA also proposes to add a new class "DOT 120A" specification tank car and a new "DOT 111A60W6" specification tank car in the table based on two petitions for rulemaking [P-1044 and P-1119] from AAR. Furthermore, RSPA proposes to remove certain entries from the table since these provisions are currently found in the text proceeding the table (see for example §§ 179.200-11, 179.200-14, and 179.200-16).

Section 179.102-4. Paragraph (d), which specifies at least one safety relief valve on a tank car tank used to transport vinyl fluoride, inhibited, would be removed, consistent with the proposed consolidation of safety relief device provisions in § 179.15. In

addition, paragraphs (b) and (c) would be redesignated paragraphs (a) and (b), paragraphs (e) through (k) would be redesignated paragraphs (c) through (i), and reserved paragraph (l) would be removed.

Section 179.103-5. Based on the merits of a petition [P-1048] submitted by AAR, paragraph (b)(2) would be revised to adopt requirements for the attachment of unloading connections for bottom outlets on pressure tank cars. This proposed revision would reflect existing requirements for bottom outlets on non-pressure tank cars.

Section 179.200-7. In addition to the proposed revision of the paragraph (b) table discussed previously, certain ASTM specifications would be revised to remove references to outdated publications. The entry for ASTM B 209-70, Alloy 6061 would be removed, as would footnotes 4 and 5 associated with that entry. Footnote 2 following the paragraph (d) table would be revised to reference Practice A of ASTM A 262-85, which is a definitive, rapid method of identifying, by simple etching, those specimens free of susceptibility to intergranular attack. This revision is based on a petition [P-1049] from AAR, and also requests referencing this Footnote 2 in § 179.201-4.

Section 179.200-14. The first sentence of paragraph (a) and the first sentence of paragraph (b) would be revised to recognize the new outage and filling limits for tank cars adopted in Docket HM-181.

Section 179.200-16. RSPA is proposing to revise the first sentence in paragraph (d) to require an outage scale visible through the manway opening when using a gaging device. This revision is based on the proposed changes to § 179.201-1.

Section 179.200-24. The reference to "ASTM A 285C" would be revised to read "ASTM A 516".

Section 179.201-4. This section specifies material requirements for fittings, tubes, castings, projections, and closures. Based on a petition [P-1049] submitted by AAR, this section would be revised to refer to Footnote 2 of § 179.200-7(d) rather than the AAR Specifications.

Section 179.221-1. RSPA is proposing to revise the class DOT 115A specification table as noted in the discussion of §§ 179.101-1 and 179.201-1.

Sections 179.222, 179.222-1, and 179.500-17. These sections would be removed because identical provisions are contained elsewhere in the HMR.

II. Rulemaking Analyses and Notices

A. Executive Order 12866 and DOT Regulatory Policies and Procedures

This proposed rule is not considered a significant regulatory action under section 3(f) of Executive Order 12866 and therefore, was not reviewed by the Office of Management and Budget. The rule is not considered a significant rule under the Regulatory Policies and Procedures of the Department of Transportation [44 FR 11034].

The economic impact of this proposed rule is expected to result in only minimal costs to certain persons subject to the HMR and may result in modest cost savings to a small number of persons subject to the HMR and to the agency. Because of the minimal economic impact of this rule, preparation of a regulatory impact analysis or a regulatory evaluation is not warranted. This certification may be revised as a result of public comment.

B. Executive Order 12612

This proposed rule has been analyzed in accordance with the principles and criteria contained in Executive Order 12612 ("Federalism"). Federal law expressly preempts State, local, and Indian tribe requirements applicable to the transportation of hazardous material that cover certain subjects and are not substantively the same as Federal requirements. 49 U.S.C. 5125(b)(1). These subjects are:

(A) The designation, description, and classification of hazardous material;

(B) The packing, repacking, handling, labeling, marking, and placarding of hazardous material;

(C) The preparation, execution, and use of shipping documents pertaining to hazardous material, and requirements respecting the number, content, and placement of such documents;

(D) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; or

(E) The design, manufacturing, fabrication, marking, maintenance, reconditioning, repairing, or testing of a package or container which is represented, marked, certified, or sold as qualified for use in the transportation of hazardous material.

If adopted as final, this rule would preempt State, local, or Indian tribe requirements concerning these subjects unless the non-Federal requirements are "substantively the same" (see 49 CFR 107.202(d) as the Federal requirements.

Federal law (49 U.S.C. 5125(b)(2)) provides that if DOT issues a regulation concerning any of the covered subjects, after November 16, 1990, DOT must

determine and publish in the Federal Register the effective date of Federal preemption. The effective date may not be earlier than the 90th day following the date of issuance of the final rule and not later than two years after the date of issuance. RSPA requests comments on what the effective date of Federal Preemption should be for the requirements in this proposed rule that concern covered subjects.

C. Regulatory Flexibility Act

This proposed rule would respond to petitions for rulemaking. It is intended to provide clarification of the regulations and relax certain requirements. Therefore, I certify that this proposal will not, if promulgated, have a significant economic impact on a substantial number of small entities. This certification is subject to modification as a result of a review of comments received in response to this proposal.

D. Paperwork Reduction Act

There are no new information collection requirements in this proposed rule.

E. Regulation Identifier Number (RIN)

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

List of Subjects

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Incorporation by reference, Reporting and recordkeeping requirements.

49 CFR Part 172

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

49 CFR Part 173

Hazardous materials transportation, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements, Uranium.

49 CFR Part 174

Hazardous materials transportation, Radioactive materials, Railroad safety.

49 CFR Part 179

Hazardous materials transportation, Railroad safety, Reporting and recordkeeping requirements.

In consideration of the foregoing, 49 CFR Chapter I would be amended as follows:

PART 171—GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS

1. The authority citation for Part 171 would continue to read as follows:

Authority: 49 U.S.C. 5101–5127; 49 CFR 1.53.

§ 171.7 [Amended]

2. In § 171.7, in the table in paragraph (a)(3), the following changes are made:

a. The following entries would be removed: ASTM A 53–69a, ASTM A 178–70, ASTM A 192–69, ASTM A 269–69, ASTM A 312–70a, ASTM B 161–70, ASTM B 210–70, ASTM B 221–76, ASTM B 241–76.

b. For the entry “ASTM A 20–81”, the reference “20–81” would be revised to read “A 20–94”.

c. For the entry “ASTM A 240–82”, the reference “240–82” would be revised to read “240–94”, and the wording “Fusion-Welded Unfired” would be removed.

d. For the entry “ASTM A 262–68”, the reference “262–68” would be revised to read “262–93”, the word “Recommended” would be removed and the word “Standard”, added in its place and the word “Austenitic” would be added immediately before “Stainless Steels”.

e. For the entry “ASTM A 302–78”, the reference “302–78” would be revised to read “302–93”.

f. For the entry “ASTM A 370–77”, the reference “370–77” would be revised to read “370–94”, the word “Test” would be added immediately following the word “Standard” and the word “Definition” would be revised to read “Definitions”.

g. For the entry “ASTM A 515–69”, the reference “515–69” would be revised to read “515–92”, and the wording “Carbon Steel Plates for Pressure Vessels” would be removed and the wording “Standard Specification for Pressure Vessel Plates, Carbon Steel” would be added in its place.

h. For the entry “ASTM A 516–79b”, the reference “516–79b” would be revised to read “516–90”.

i. For the entry “ASTM A 537–80”, the reference “537–80” would be revised to read “537–91”.

j. For the entry “ASTM B 162–69”, the reference “162–69” would be revised to read “162–93”.

k. For the entry “ASTM B 209–69”, the reference “209–69” would be revised to read “209–93” and the wording “Aluminum Alloy” would be revised to read “Aluminum and Aluminum-Alloy”.

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

3. The authority citation for Part 172 would continue to read as follows:

Authority: 49 U.S.C. 5101–5127; 49 CFR 1.53.

§ 172.101 [Amended]

4. In § 172.101, in the Hazardous Materials Table, the following changes would be made:

a. For the following entries, in Column (7), Special Provision “B12,” would be removed:

- Acrolein, inhibited;
Bromine or Bromine solutions;
Bromine chloride;
Dinitrogen tetroxide, liquefied;
Formic acid;
Hydrocyanic acid, aqueous solutions or Hydrogen cyanide, aqueous solutions with not more than 20 percent hydrogen cyanide;
Hydrocyanic acid, aqueous solutions with less than 5 percent hydrogen cyanide;
Hydrofluoric acid, solution, with more than 60 percent strength;
Hydrofluoric acid, solution, with not more than 60 percent strength;
Hydrogen cyanide, stabilized with less than 3 percent water;
Hydrogen fluoride, anhydrous;
Hydrogen peroxide and peroxyacetic acid mixtures, stabilized with acids, water and not more than 5 percent peroxyacetic acid;
Hydrogen peroxide, aqueous solutions with more than 40 percent but not more than 60 percent hydrogen peroxide (stabilized as necessary);
Hydrogen peroxide, aqueous solutions with not less than 20 percent but not more than 40 percent hydrogen peroxide (stabilized as necessary);
Hydrogen peroxide, stabilized or Hydrogen peroxide aqueous solutions, stabilized with more than 60 percent hydrogen peroxide;
Motor fuel anti-knock mixtures;
Nitric acid other than red fuming, with more than 70 percent nitric acid;
Nitric acid other than red fuming, with not more than 70 percent nitric acid;
Nitric oxide;
Nitric oxide and dinitrogen tetroxide mixtures or Nitric oxide and nitrogen dioxide mixtures;

- Perchloryl fluoride;
Phosphorus, amorphous;
Phosphorus, white dry or Phosphorus, white, under water or Phosphorus, white, in solution or Phosphorus, yellow dry or Phosphorus, yellow, under water or Phosphorus, yellow, in solution;
Phosphorous white, molten;
Potassium nitrate and sodium nitrite mixtures;
Sulfur trioxide, inhibited; and
Sulfur trioxide, uninhibited.

b. For the entries “Carbon dioxide, solid or Dry ice” and “Potassium permanganate”, in Column (7), Special Provision “B12” would be removed.

c. For the entry “Dimethylhydrazine, unsymmetrical”, in Column (7), Special Provision “B79,” would be removed.

5. In § 172.102, in paragraph (c)(3), Special Provisions B12 and B79 would be removed and Special Provisions B42, B65, B71, B72, B74, B76 and the first sentence of B78 would be revised to read as follows:

§ 172.102 Special provisions.

* * * * *

(c) * * *

(3) * * *

Code/Special Provisions

* * * * *

B42 Tank cars must have a test pressure of 34.47 Bar (500 psig) or greater and conform to Class 105J. Each tank car must have a safety relief device having a start-to-discharge pressure of 10.34 Bar (150 psig). The tank car specification may be marked to indicate a test pressure of 13.79 Bar (200 psig).

* * * * *

B65 Tank cars must have a test pressure of 34.47 Bar (500 psig) or greater and conform to Class 105J. Each tank car must have a safety relief device having a start-to-discharge pressure of 15.51 Bar (225 psig). The tank car specification may be marked to indicate a test pressure of 20.68 Bar (300 psig).

* * * * *

B71 Tank cars must have a test pressure of 20.68 Bar (300 psig) or greater and conform to Class 105, 112, or 114.

B72 Tank cars must have a test pressure of 34.47 Bar (500 psig) or greater and conform to Class 105J, 106, or 110.

B74 Tank cars must have a test pressure of 20.68 Bar (300 psig) or greater and conform to Class 105S, 106, 110, 112J, or 114J.

B76 Tank cars must have a test pressure of 20.68 Bar (300 psig) or greater and conform to Class 105S, 112J, or 114J. Each tank car must have a safety relief device having a start-to-discharge pressure of 10.34 Bar (150 psig). The tank car specification may be marked to indicate a test pressure of 13.79 Bar (200 psig).

* * * * *

B78 Tank cars must have a test pressure of 4.14 Bar (60 psig) or greater and conform to Class 103, 104, 105, 109, 111, 112, or 114.

* * *

* * * * *

§ 172.102 [Amended]

6. In addition, in § 172.102, in paragraph (c)(3), the following changes would be made:

a. For Special Provision B4, the wording "AAR 206 tank car tanks and" would be removed.

b. For Special Provision B5, the wording "DOT 103 ALW, 111A60 ALW tank car tanks and" would be removed.

c. For Special Provision B10, the wording "AAR 206 tank car tanks," would be removed.

d. For Special Provision B57, the wording "complying with § 179.221-1 of this subchapter and the outer shell must be stenciled "CHLOROPRENE" on both sides in letters not less than 102 mm (4 inches) high" would be removed.

7. In § 172.203, paragraphs (e)(2) and (g) would be revised to read as follows:

§ 172.203 Additional description requirements.

* * * * *

(e) * * *

(2) The description on the shipping paper for a tank car containing the residue of a hazardous material must include the phrase, "RESIDUE: LAST CONTAINED. . ." before the basic description.

* * * * *

(g) *Transportation by rail.* (1) The shipping paper for a rail car, freight container, transport vehicle, or portable tank that contains a hazardous material must include the reporting mark and number of the rail car, freight container, transport vehicle, or portable tank.

(2) The shipping paper for each DOT-113 tank car containing a Division 2.1 material or its residue must contain an appropriate notation, such as "DOT 113", and the statement "Do not hump or cut off car while in motion."

(3) When shipments of elevated temperature materials are transported under the exception permitted in § 173.247(h)(3) of this subchapter, the shipping paper must contain an appropriate notation, such as "Maximum operating speed 15 mph."

* * * * *

8. In § 172.205, paragraph (f) would be revised to read as follows:

§ 172.205 Hazardous waste manifest.

* * * * *

(f) *Transportation by rail.* Notwithstanding the requirements of paragraphs (d) and (e) of this section, the following requirements apply:

(1) When accepting hazardous waste from a non-rail transporter, the initial rail transporter must:

(i) Sign and date the manifest acknowledging acceptance of the hazardous waste;

(ii) Return a signed copy of the manifest to the non-rail transporter;

(iii) Forward at least three copies of the manifest to:

(A) The next non-rail transporter, if any; or

(B) The designated facility, if the shipment is delivered to that facility by rail; or

(C) The last rail transporter designated to handle the waste in the United States; and

(iv) Retain one copy of the manifest and rail shipping paper in accordance with 40 CFR 263.22.

(2) Rail transporters must ensure that a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator certification and signatures) and, for exports, an EPA Acknowledgment of Consent accompanies the hazardous waste at all times. Intermediate rail transporters are not required to sign either the manifest or shipping paper.

(3) When delivering hazardous waste to the designated facility, a rail transporter must:

(i) Obtain the date of delivery and handwritten signature of the owner or operator of the designated facility on the manifest or the shipping paper (if the manifest has not been received by the facility); and

(ii) Retain a copy of the manifest or signed shipping paper in accordance with 40 CFR 263.22.

(4) When delivering hazardous waste to a non-rail transporter a rail transporter must:

(i) Obtain the date of delivery and the handwritten signature of the next non-rail transporter on the manifest; and

(ii) Retain a copy of the manifest in accordance with 40 CFR 263.22.

(5) Before accepting hazardous waste from a rail transporter, a non-rail transporter must sign and date the manifest and provide a copy to the rail transporter.

* * * * *

9. In § 172.330, paragraph (a)(1) would be revised to read as follows:

§ 172.330 Tank cars and multi-unit tank car tanks.

(a) * * *

(1) In a tank car unless the following conditions are met:

(i) The tank car must be marked on each side and each end as required by § 172.302 with the identification number specified for the material in the § 172.101 Table; and

(ii) A tank car containing any of the following materials must be marked on each side with the key words of the proper shipping name specified for the

material in the § 172.101 Table, or with a common name authorized for the material in this subchapter (e.g., "Refrigerant Gas"):

- (A) Division 2.1 or Division 2.3 materials;
- (B) Anhydrous ammonia or an ammonia solution with more than 50% ammonia;
- (C) A refrigerant or dispersant gas, as defined in § 173.115 of this subchapter;
- (D) Bromine or bromine solutions;
- (E) Chloroprene, inhibited;
- (F) Hydrogen cyanide; or
- (G) A Division 2.2 material in a Class DOT 107 tank car.

* * * * *

10. In § 172.510, paragraph (a) would be revised, paragraphs (b) and (c) would be removed, and paragraphs (d) and (e) would be redesignated as paragraphs (b) and (c), respectively, to read as follows:

§ 172.510 Special placarding provisions: Rail.

(a) *White square background.* The following must have the specified placards placed on a white square background, as described in § 172.527:

- (1) Division 1.1 and 1.2 (explosive) materials which require EXPLOSIVES 1.1 or EXPLOSIVES 1.2 placards affixed to the rail car;
- (2) Materials poisonous by inhalation in Hazard Zone A, including tank cars containing only a residue of the material; and
- (3) Class DOT 113 tank cars used to transport a Division 2.1 (flammable gas) material, including tank cars containing only a residue of the material.

* * * * *

§ 172.526 [Removed and reserved]

11. Section 172.526 would be removed and reserved.

PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

12. The authority citation for Part 173 would continue to read as follows:

Authority: 49 U.S.C. 5102-5127; 49 CFR 1.53.

13. In § 173.24b, paragraph (a)(3) would be removed and paragraph (a)(1) would be revised to read as follows:

§ 173.24b Additional general requirements for bulk packagings.

(a) *Outage and filling limits.* (1) Liquids and liquefied gases must be so loaded that the outage is at least one percent (two percent for anhydrous ammonia and five percent for materials poisonous by inhalation) of the total capacity of a cargo tank, portable tank, tank car (including dome capacity),

multi-unit tank car tank, or any compartment thereof, at the following reference temperatures—

- (i) 46°C (115°F) for noninsulated tanks;
 - (ii) 43°C (110°F) for tank cars having a thermal protection system, incorporating a metal jacket, that provides an overall thermal conductance at 15.5°C (60°F) of no more than 10.22 kilojoules per hour per square meter per degrees Celsius (0.5 Btu per hour/ per square foot/ per degree F) temperature differential; or
 - (iii) 41°C (105°F) for insulated tanks.
- * * * * *

§ 173.29 [Amended]

14. In § 173.29, paragraph (f) would be removed and reserved.

15. In § 173.314, as currently in effect, paragraph (b)(5) would be removed, paragraph (b)(6) would be redesignated as paragraph (b)(5) and revised, and paragraph (i) would be removed and reserved, to read as follows:

§ 173.314 Requirements for compressed gases in tank car tanks.

* * * * *

(b) * * *

(5) Each tank car used for the transportation of a Division 2.1 or 2.3 material or anhydrous ammonia must have gaskets capable of surviving temperatures at or above 230°C (450°F). The use of sealants to install gaskets is prohibited.

* * * * *

§ 173.314 [Amended]

16. In addition, in § 173.314, as amended at 60 FR 49074, effective July 1, 1996, the following changes would be made:

a. In the paragraph (c) table, in Column 2, for the entry "Ammonia, anhydrous, or ammonia solutions >50 percent ammonia", "Note 2" would be removed and "Note 3" added in its place.

b. In paragraph (c), in Column 3, for the entry "Dimethyl ether", the class designations "112" and "114" would be added in appropriate numerical order.

c. In the notes following the paragraph (c) table, Note 2, would be removed and reserved.

PART 174—CARRIAGE BY RAIL

17. The authority citation for Part 174 would continue to read as follows:

Authority: 49 U.S.C. 5101–5127; 49 CFR 1.53.

18. Section 174.3 would be revised to read as follows:

§ 174.3 Unacceptable hazardous materials shipments.

No person may accept for transportation or transport by rail any shipment of hazardous material that is not in accordance with the requirements of this subchapter.

§ 174.8 [Removed]

20. Section 174.8 would be removed.

21. Section 174.9 would be revised to read as follows:

§ 174.9 Inspection and acceptance.

At each location where a hazardous material is accepted for transportation or placed in a train, the carrier shall externally inspect each rail car containing the hazardous material, at ground level, for required markings, labels, placards, securement of closures, leakage, and for the requirements of part 215 of this title.

§ 174.10 [Removed]

22. Section 174.10 would be removed.

§ 174.11 [Removed]

23. Section 174.11 would be removed.

§ 174.18 [Removed]

24. Section 174.18 would be removed.

25. Section 174.24 would be revised to read as follows:

§ 174.24 Shipping papers.

A carrier may not accept or transport a hazardous material by rail unless the material is properly described on a shipping paper in the manner prescribed in part 172 of this subchapter. An originating carrier must have a copy of the shipping paper that bears the shipper's certification as required by § 172.204 of this subchapter.

§ 174.25 [Removed]

26. Section 174.25 would be removed.

27. In § 174.26, paragraph (a) would be removed, paragraphs (b) and (c) would be redesignated as paragraphs (a) and (b), respectively, and newly redesignated paragraph (b) would be revised to read as follows:

§ 174.26 Notice to train crews of placarded cars.

* * * * *

(b) A member of the train crew of a train transporting a hazardous material must have a copy of the shipping papers, train consist, or other car movement document for the hazardous material being transported showing the information required by part 172 of this subchapter.

§ 174.45 [Removed]

28. Section 174.45 would be removed.

§§ 174.47 through 174.49 [Removed]

29. Sections 174.47, 174.48 and 174.49 would be removed.

30. Section 174.50 would be revised to read as follows:

§ 174.50 Leaking packages.

Leaking packages other than tank cars may not be forwarded until repaired, reconditioned, or overpacked in accordance with § 173.3 of this subchapter. Except as otherwise provided, a tank car that no longer conforms to this subchapter may not be forwarded unless repaired or approved, in writing, for movement by the Associate Administrator for Safety, Federal Railroad Administration. For the applicable address and telephone number, see part 107, appendix A, of this chapter. A leaking tank car containing any hazardous material may be switched to a location distant from habitation and highways if the move can be safely made and, in the case of a liquid leak, if precautions are taken against the spread of the liquid.

31. Section 174.55 would be revised to read as follows:

§ 174.55 General requirements.

(a) Except as otherwise provided, each packaging containing hazardous materials being transported by rail must be secured within the transport vehicle so that the packaging will not become damaged to an extent that would affect its integrity under conditions normally incident to rail transportation.

(b) Each package of hazardous materials bearing package orientation markings prescribed in § 172.312 of this subchapter must be secured within the transport vehicle in accordance with the orientation indicated by the markings.

(c) The doors of the transport vehicle may not be used as support for the securement system or the package beyond their design strength as required by the AAR's Manual of Standards and Recommended Practices, Specification M-930 (for containers) and M-931 (for trailers).

§ 174.67 [Amended]

32. In § 174.67, in paragraph (k), the wording " , except that heater coil inlet and outlet pipes must be left open for drainage" would be removed.

§ 174.69 [Removed]

33. Section 174.69 would be removed.

34. Section 174.85 would be amended by revising paragraph (c) to read as follows:

§ 174.85 Position in train of placarded cars, transport vehicles, freight containers, and bulk packagings.

* * * * *

(c) A rail car containing the residue of a hazardous material must be separated from a locomotive or occupied caboose by at least one non-placarded rail car.

* * * * *

PART 179—SPECIFICATIONS FOR TANK CARS

35. The authority citation for part 179 would continue to read as follows:

Authority: 49 U.S.C. 5101-5127; 49 CFR 1.53.

36. Section 179.12 would be revised to read as follows:

§ 179.12 Interior heater systems.

(a) Interior heater systems shall be of approved design and materials. If a tank is divided into compartments, a separate system shall be provided for each compartment.

(b) Each interior heater system shall be hydrostatically tested at not less than 13.79 bar (200 psi) and shall hold the pressure for 10 minutes without leakage or evidence of distress.

§§ 179.12-1 through 179.12-7 [Removed]

37. Sections 179.12-1 through 179.12-7 would be removed.

38. Section 179.15 would be added to read as follows:

§ 179.15 Pressure relief devices.

Except for DOT Class 106, 107, 110, and 113 tank cars, tanks must have a pressure relief system that conforms to the following requirements:

(a) *Performance standard.* Each tank must have a pressure relief system having sufficient flow capacity to prevent pressure build-up in the tank to no more than the flow rating pressure of the pressure relief device in fire conditions as defined in Appendix A of the Association of American Railroads Specifications for Tank Cars.

(b) *Settings for pressure relief valves.*

(1) Except as provided in paragraph (b)(2) of this section, a reclosing pressure relief valve must have a minimum start-to-discharge pressure equal to the sum of the lading vapor pressure at the reference temperature (46 °C (115 °F) for noninsulated tanks, 41 °C (105 °F) for insulated tanks) plus the static head plus gas padding pressure. The start-to-discharge pressure may not be lower than 5.17 Bar (75 psig) or exceed 33 percent of the minimum tank burst pressure.

(2) Tanks built prior to [one year after publication of final rule] having a minimum tank burst pressure of 34.47 Bar (500 psig) or less may be equipped with a reclosing pressure relief valve having a start-to-discharge pressure of not less than 14.5 percent of the

minimum tank burst pressure but no more than 33 percent of the minimum tank burst pressure.

(3) The vapor tight pressure of a reclosing pressure relief valve must be at least 80 percent of the start-to-discharge pressure.

(4) The valve flow rating pressure must be 110 percent of the start-to-discharge pressure for tanks having a minimum tank burst pressure greater than 34.47 Bar (500 psig) and from 110 percent to 130 percent for tanks having a minimum tank burst pressure less than or equal to 34.47 Bar (500 psig).

(5) The tolerance for a reclosing pressure relief valve is ± 3 psi for valves with a start-to-discharge pressure of 6.89 Bar (100 psig) or less and ± 3 percent for valves with a start-to-discharge pressure greater than 6.89 Bar (100 psig).

(c) *Flow capacity of pressure relief systems.* The total flow capacity of each reclosing and nonreclosing pressure relief device must conform to Appendix A of the Association of American Railroads Specifications for Tank Cars.

(d) *Flow capacity tests.* The manufacturer of any reclosing or nonreclosing pressure relief device must design and test the device in accordance with Appendix A of the Association of American Railroads Specifications for Tank Cars.

(e) *Combination pressure relief systems.* (1) When a reclosing pressure relief valve is used in combination with a breaking pin device, the breaking pin must be designed to fail at the start-to-discharge pressure specified in paragraph (b) of this section, and the reclosing pressure relief valve must be designed to discharge at 95 percent of the start-to-discharge pressure.

(2) When a reclosing pressure relief valve is used in combination with a rupture disc, the rupture disc must be designed to fail at the start-to-discharge pressure specified in paragraph (b) of this section, and the reclosing pressure relief valve must be designed to discharge 95 percent of the start-to-discharge pressure. A device must be installed to detect any accumulation of pressure between the rupture disc and the reclosing pressure relief valve. The detection device must be a needle valve, trycock, or tell-tale indicator. The detection device must be closed during transportation.

(f) *Non-reclosing pressure relief device.* In addition to paragraphs (a), (c), and (d) of this section, a nonreclosing pressure relief device must conform to the following requirements:

(1) After [one year after publication of final rule], a non-reclosing pressure relief device must incorporate a rupture

disc designed to burst at 33 percent of the tank burst pressure.

(2) The approach channel and the discharge channel may not reduce the required minimum flow capacity of the pressure relief device.

(3) The nonreclosing pressure relief device must be designed to prevent interchange with other fittings installed on the tank car, must have a structure that encloses and clamps the rupture disc in position (preventing any distortion or damage to the rupture disc when properly applied), and must have a cover, with suitable means of preventing misplacement, designed to direct any discharge of the lading downward.

(4) The nonreclosing pressure relief device must be closed with a rupture disc that is compatible with the lading and manufactured in accordance with Appendix A of the AAR Specifications for Tank Cars.

(g) *Location of relief devices.* Each pressure relief device must communicate with the vapor space above the lading on the longitudinal center line as near as practicable to the center of the tank.

(h) *Marking of pressure relief devices.* Each pressure relief device and rupture disc must be permanently marked in accordance with the Appendix A of the Association of American Railroads Specifications for Tank Cars.

39. In § 179.100-7, the table following paragraph (a) would be revised to read as follows:

§ 179.100-7 Materials.

(a) * * *

Specifications	Minimum tensile strength (p.s.i.) welded condition ¹	Minimum elongation in 2 inches (percent) welded condition (longitudinal)
ASTM A 516	70,000	20
AAR TC128, Gr. B	81,000	19
ASTM A 537, Class 1	70,000	23
ASTM A 302, Gr. B ..	80,000	20

¹ Maximum stresses to be used in calculations.

* * * * *

§ 179.100-7 [Amended]

40. In addition, in § 179.100-7, the following changes would be made:

a. In the table following paragraph (b), the last entry "ASTM B 209-70, Alloy 6061⁴" would be removed, and the wording "209-70" would be revised to read "209" each place it appears.

b. In the footnotes to the paragraph (b) table, Footnotes 4 and 5 would be

removed and Footnote 6 would be redesignated as Footnote 4.

c. In the table following paragraph (c)(1), the wording "A240-70" would be revised to read "A 240" each place it appears.

d. In paragraph (c)(2) (i), the wording "A262-68" would be revised to read "A 262", the word "Recommended" would be revised to read "Standard", and the word "Austenitic" would be added immediately before "Stainless Steel".

§ 179.100-10 [Amended]

41. In § 179.100-10, in paragraph (c), the wording "ASTM A240-70" would be revised to read "ASTM A 240".

§ 179.100-15 [Removed and reserved]

42. Section 179.100-15 would be removed and reserved.

§ 179.100-20 [Amended]

43. In § 179.100-20, in the paragraph (a) table, for the entry "Material", in the

second column, the wording "ASTM A515-70" would be revised to read "ASTM A 516".

44. Section 179.101-1 would be revised to read as follows:

§ 179.101-1 Individual specification requirements.

In addition to § 179.100, the individual specification requirements are as follows:

DOT specification	Insulation	Bursting pressure (psi)	Minimum plate thickness (inches)	Test pressure (psi)	Manway cover thickness	Bottom outlet	Bottom washout	Reference (179.***)
105A100ALW	Yes	500	5/8	100	2 2 1/2	No	No	
105A200ALW	Yes	500	5/8	200	2 2 1/2	No	No	
105A300ALW	Yes	750	5/8	300	2 2 5/8	No	No	
105A100W	Yes	500	3 9/16	100	2 1/4	No	No	
105A200W	Yes	500	3 9/16	200	2 1/4	No	No	
105A300W	Yes	750	1 1 1/16	300	7 2 1/4	No	No	
105A400W	Yes	1,000	1 1 1/16	400	7 2 1/4	No	No	
105A500W	Yes	1,250	1 1 1/16	500	2 1/4	No	No	102-1, 102-2
105A600W	Yes	1,500	1 1 1/16	600	2 1/4	No	No	102-4, 102-17
109A100ALW	Optional	500	5/8	100	2 2 1/2	No	Optional	
109A200ALW	Optional	500	5/8	200	2 2 1/2	No	Optional	
109A300ALW	Optional	750	5/8	300	2 2 5/8	No	Optional	
109A300W	Optional	500	1 1 1/16	300	2 1/4	No	Optional	
112A200W	Optional ⁴	500	3.5 9/16	200	2 1/4	No	No	
112A340W	Optional ⁴	850	1 1 1/16	340	2 1/4	No	No	
112A400W	Optional ⁴	1,000	1 1 1/16	400	2 1/4	No	No	
112A500W	Optional ⁴	1,250	1 1 1/16	500	2 1/4	No	No	
114A340W	Optional ⁴	850	1 1 1/16	340	(⁶)	Optional	Optional	103
114A400W	Optional ⁴	1,000	1 1 1/16	400	(⁶)	Optional	Optional	103
120A200ALW	Yes	500	5/8	200	2 2 1/2	Optional	Optional	103
120A100W	Yes	500	3 9/16	100	2 1/4	Optional	Optional	103
120A200W	Yes	500	3 9/16	200	2 1/4	Optional	Optional	103
120A300W	Yes	750	1 1 1/16	300	2 1/4	Optional	Optional	103
120A400W	Yes	1,000	1 1 1/16	400	2 1/4	Optional	Optional	103
120A500W	Yes	1,250	1 1 1/16	500	2 1/4	Optional	Optional	103

¹ When steel of 65,000 to 81,000 p.s.i. minimum tensile strength is used, the thickness of plates shall be not less than 5/8 inch, and when steel of 81,000 p.s.i. minimum tensile strength is used, the minimum thickness of plates shall be not less than 9/16 inch.

² When approved material other than aluminum alloys are used, the thickness shall be not less than 2 1/4 inches.

³ When steel of 65,000 p.s.i. minimum tensile strength is used, minimum thickness of plates shall be not less than 1/2 inch.

⁴ Tank cars not equipped with a thermal protection or an insulation system used for the transportation of a Class 2 (compressed gas) material must have at least the upper two-thirds of the exterior of the tank, including manway nozzle and all appurtenances in contact with this area, finished with a reflective coat of white paint.

⁵ For inside diameter of 87 inches or less, the thickness of plates shall be not less than 1/2 inch.

⁶ See AAR specifications for tank cars, Appendix E, E4.01 and § 179.103-2.

⁷ When the use of nickel is required by the lading, the thickness shall not be less than two inches.

§ 179.102-1 [Amended]

45. In § 179.102-1, in paragraph (a)(1), the following changes would be made:

a. In the first sentence, the wording "A516-79b" would be revised to read "A 516".

b. At the end of the third sentence, the wording "A370-77" would be revised to read "A 370".

c. In the last sentence, the wording "A240-79" would be revised to read "A 240".

§ 179.102-2 [Amended]

46. In § 179.102-2, in paragraph (a)(1), the wording "A516-70a" would be revised to read "A 516" and the

wording "TC-128-70" would be revised to read "TC-128".

§ 179.102-4 [Amended]

47. In § 179.102-4, the following changes would be made:

a. Paragraph (d) would be removed.

b. Paragraphs (b) and (c) would be redesignated as paragraphs (a) and (b), respectively.

c. Paragraphs (e) through (k) would be redesignated as paragraphs (c) through (i), respectively.

d. Paragraph (l) would be removed.

48. In § 179.103-5, in paragraph (a)(3), the word "valve" would be removed,

and paragraph (b)(2) would be revised to read as follows:

§ 179.103-5 Bottom outlets.

* * * * *

(b) * * *

(2) To provide for the attachment of unloading connections, the discharge end of the bottom outlet nozzle or reducer, the valve body of the exterior valve, or some fixed attachment thereto, shall be provided with one of the following arrangements or an approved modification thereof. (See appendix E, Fig. E17 of the AAR Specifications for Tank Cars for illustrations of some of the possible arrangements.)

(i) A bolted flange closure arrangement including a minimum 1-inch NPT pipe plug (see Fig. E17.1) or including an auxiliary valve with a threaded closure.

(ii) A threaded cap closure arrangement including a minimum 1-inch NPT pipe plug (see Fig. E17.2) or including an auxiliary valve with a threaded closure.

(iii) A quick-coupling device using a threaded plug closure of at least 1-inch NPT or having a threaded cap closure with a minimum 1-inch NPT pipe plug (see Fig. E17.3 through E17.5). A minimum 1-inch auxiliary test valve with a threaded closure may be substituted for the 1-inch pipe plug (see Fig. E17.6). If the threaded cap closure does not have a pipe plug or integral auxiliary test valve, a minimum 1-inch NPT pipe plug shall be installed in the outlet nozzle above the closure (see Fig. E17.7).

(iv) A two-piece quick-coupling device using a clamped dust cap must include an in-line auxiliary valve, either integral with the quick-coupling device or located between the primary bottom outlet valve and the quick-coupling device. The quick-coupling device closure dust cap or outlet nozzle shall be fitted with a minimum 1-inch NPT closure (see Fig. E17.8 and E17.9).

* * * * *

49. Section 179.200-7 would be amended by revising the table following paragraph (b) to read as follows:

§ 179.200-7 Materials.

* * * * *

(b) * * *

Specifications	Minimum tensile strength (p.s.i.) welded condition ¹	Minimum elongation in 2 inches (percent) weld metal (longitudinal)
ASTM A 515, Gr. 70 .	70,000	20
ASTM A 516, Gr. 70 .	70,000	20
AAR TC 128, Gr. B ..	81,000	19

¹ Maximum stresses to be used in calculations.

* * * * *

§ 179.200-7 [Amended]

50. In addition, in § 179.200-7, the following changes would be made:

a. In the table following paragraph (c), the last entry "ASTM B 209-70, Alloy 60614" would be removed, and in the first column, for each entry, the wording "209-70" would be revised to read "209".

b. In the paragraph (c) table, Footnotes 4 and 5 would be removed and Footnote 6 would be redesignated as Footnote 4.

c. In the table following paragraph (d), in the first column, for each entry, the wording "240-70" would be revised to read "240".

d. In Footnote 2 in the paragraph (d) table, the wording "the following procedures in ASTM Specification A 262-68 titled, 'Recommended Practices for Detecting Susceptibility to Intergranular Attack in Stainless Steels,' and must exhibit corrosion rates not exceeding the following:" would be revised to read "Practice A of ASTM Specification A 262 titled, 'Standard Practices for Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels.' If the specimen does not pass Practice A, Practice B or C must be used and the corrosion rates may not exceed the following:".

e. In the table following paragraph (e), in the first column, the wording "162-69²" would be revised to read "162²".

f. In the table following paragraph (f), in the first column, the wording "302-69a" would be revised to read "302".

51. In § 179.200-14, the first sentence of paragraph (a) and the first sentence of paragraph (b) would be revised to read as follows:

§ 179.200-14 Expansion capacity.

(a) Tanks shall have expansion capacity as prescribed in this subchapter. * * *

(b) For tank cars having an expansion dome, the expansion capacity is the total capacity of the tank and dome combined. * * *

* * * * *

52. In § 179.200-16, the first sentence in paragraph (d) would be revised to read as follows:

§ 179.200-16 Gauging devices, top loading and unloading devices, venting and air inlet devices.

* * * * *

(d) When using a gauging device, an outage scale visible through the manway opening shall be provided. * * *

* * * * *

§ 179.200-18 [Removed]

53. Section 179.200-18 would be removed.

§ 179.200-24 [Amended]

54. In § 179.200-24, in the paragraph (a) table, for the entry "Material", in the second column, the wording "ASTM A285 C" would be revised to read "ASTM A 516".

55. Section 179.201-1 would be revised to read as follows:

§ 179.201-1 Individual specification requirements.

In addition to § 179.200, the individual specification requirements are as follows:

DOT Specification ¹	Insulation	Bursting pressure (psi)	Minimum plate thickness (inches)	Test pressure (psi)	Bottom outlet	Bottom washout	References (179.201-***)
103A-ALW	Optional	240	1/2	60	No	Optional	
103AW	Optional	240	179.201-2	60	No	Optional	
103ALW	Optional	240	1/2	60	Optional	Optional	6(a).
103ANW	Optional	240	179.201-2	60	No	Optional	6(d).
103BW	Optional	240	179.201-2	60	No	No	6(b), 3.
103CW	Optional	240	179.201-2	60	No	No	6(c), 4, 5.
103DW	Optional	240	179.201-2	60	Optional	Optional	6(a), 6(c), 4, 5.
103EW	Optional	240	179.201-2	60	No	Optional	6(c), 4, 5.
103W	Optional	240	179.201-2	60	Optional	Optional	6(a).
104W	Yes	240	179.201-2	60	Optional	Optional	6(a).
111A60ALW1	Optional	240	1/2	60	Optional	Optional	6(a).
111A60ALW2	Optional	240	1/2	60	No	Optional	
111A60W1	Optional	240	7/16	60	Optional	Optional	6(a).
111A60W2	Optional	240	7/16	60	No	Optional	
111A60W5	Optional	240	7/16	60	No	No	3, 6(b).

DOT Specification ¹	Insulation	Bursting pressure (psi)	Minimum plate thickness (inches)	Test pressure (psi)	Bottom outlet	Bottom washout	References (179.201-****)
111A60W6	Optional	240	7/16	60	Optional	Optional	4, 5, 6(a), 6(c).
111A60W7	Optional	240	7/16	60	No	No	4, 5, 6(a).
111A100ALW1	Optional	500	5/8	100	Optional	Optional	6(a).
111A100ALW2	Optional	500	5/8	100	No	Optional	
111A100W1	Optional	500	7/16	100	Optional	Optional	6(a).
111A100W2	Optional	500	7/16	100	No	Optional	
111A100W3	Yes	500	7/16	100	Optional	Optional	6(a).
111A100W4	Yes (see 179.211-11).	500	7/16	100	No	No	6(a), 8, 10.
111A100W5	Optional	500	7/16	100	No	No	3.
111A100W6	Optional	500	7/16	100	Optional	Optional	4, 5, 6(a) and 6(b).
111A100W7	Optional	500	7/16	100	No	No	4, 5, 6(c).

¹Tanks marked "ALW" are constructed from aluminum alloy plate; "AN" nickel plate; "CW," "DW," "EW," "W6," and "W7" high alloy steel or manganese-molybdenum steel plate; and those marked "BW" or "W5" must have an interior lining that conforms to § 179.201-3.

§ 179.201-4 [Amended]

56. In § 179.201-4, at the end of the paragraph, the wording "AAR Specifications for Tank Cars, appendix M, M3.03(b) and M4.05(d)" would be revised to read "ASTM Specification A 262".

§ 179.201-5 [Amended]

57. In § 179.201-5, in paragraphs (a) and (b), the wording "ASTM A240-70"

would be revised to read "ASTM Specification A 240" each place it appears.

§ 179.201-7 [Removed]

58. Section 179.201-7 would be removed.

§ 179.220-19 [Removed]

59. Section 179.220-19 would be removed.

60. Section 179.221-1 would be revised as follows:

§ 179.221-1 Individual specification requirements.

In addition to § 179.220, the individual specification requirements are as follows:

DOT Specification ¹	Insulation	Bursting pressure (psi)	Minimum plate thickness (inches)	Test pressure (psi)	Bottom outlet	Bottom washout	Reference (179.221-****)
115A60W1	Yes	240	1/8	60	Optional	Optional	1.
115A60ALW	Yes	240	3/16	60	Optional	Optional..	
115A60W6	Yes	240	1/8	60	Optional	Optional	1.

¹Tanks converted to DOT-1A series from existing forge-welded specification, DOT-105A 300, 490, or 500 tanks, by modification using conversion details complying with DOT-1-11A specification requirements, shall be stenciled by substituting the letter "F" for the letter "W" in the specification designation.

§ 179.222 [Removed]

61. Section 179.222 would be removed.

§ 179.222-1 [Removed]

62. Section 179.222-1 would be removed.

§ 179.300-7 [Amended]

63. In § 179.300-7, the following changes would be made:

a. In the table at the end of paragraph (a), the wording "A 285-69" would be revised to read "A 285" each place it appears, and the wording "A 515-69" would be revised to read "A 515" each place it appears.

b. In the table at the end of paragraph (b), the wording "285-69" would be revised to read "285".

§ 179.500-17 [Amended]

64. In § 179.500-17, paragraph (a)(7) would be removed.

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Alan I. Roberts,
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